

297-2183-102

Nortel Networks Symposium Express Call Center

Planning, Installation, and Administration Guide

Product release 3.0

Standard 3.0

September 2002

NORTEL
NETWORKS™

P0913583

Nortel Networks Symposium Express Call Center Planning, Installation, and Administration Guide

Publication number: 297-2183-102
Product release: 3.0
Document release: Standard 3.0
Date: September 2002

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Publication history

- September 2002** This document is the third standard release of the *Nortel Networks Symposium Express Call Center Planning, Installation, and Administration Guide*, Release 3.0.
- April 2002** This document is the second standard release of the *Nortel Networks Symposium Express Call Center Planning, Installation, and Administration Guide*, Release 3.0.
- June 2001** This document is the first standard release of the *Nortel Networks Symposium Express Call Center Planning, Installation, and Administration Guide*, Release 3.0.

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Chapter 1

Getting started

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Overview

Introduction

Nortel Networks announces Symposium Express Call Center. This product provides a simplified call center solution for call centers with up to 150 agents and up to 5000 calls per hour.

Some of the Symposium Express Call Center advantages are

- cradle-to-grave call control
- state-of-the-art user interface
- industry standard client/server architecture
- open interfaces: database, real-time, and Symposium Link
- client/server processing power and leveraging of PBX switching reliability

What's new in this release

This guide describes the following Symposium Express Call Center Release 3.0 features:

- **Symposium Management Interface**
You now use the Symposium Management Interface (SMI) Workbench folder to connect to each server from the client PC. When you double-click the system icon, 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 Symposium Express Call Center.
- **Voice Services**
A Voice Services card installed in the switch—a Meridian 1 (M1), Meridian 1 Internet Enabled (M1 IE), or Succession Communication Server for Enterprise (CSE) 1000 (Succession CSE 1000) switch—provides front-end voice processing capability to Symposium Express Call Center. The Voice Services card provides similar functionality to Meridian Mail; however, the

Voice Services card enables you to play recorded announcements and voice menu options so that you can collect customer-entered data (Prompt/Collect Digits), or to inform callers of their position in queue or the amount of time they can expect to wait before their call is answered.

You collect customer-entered data in the form of digits entered through phoneset keys. You can then use this information to determine how the call is treated. Digit collection, Position in Queue, and Expected Wait Time are keycoded features available only if you have installed a Voice Services card in the M1, M1 IE, or Succession CSE 1000 switch.

For information on the Voice Services card, see *Nortel Networks Symposium Express Call Center Voice Services Card Installation Guide*, Release 3.0.

Note: The Prompt/Collect Digits feature will only be available in a future release of Symposium Express Call Center.

- Automatic script activation

You no longer need to run the script activator after you install Symposium Express Call Center. Scripts are automatically activated after you run the Call Treatment and Call Routing wizards.

- Conversion from Symposium Express Call Center Release 1.0 or 2.0 to Symposium Express Call Center Release 3.0

You can convert from Symposium Express Call Center software Release 1.0 or Release 2.0 to Release 3.0. To convert from Release 1.0 to Release 3.0, you must first upgrade to Release 2.0. For more information, see “To ensure that the switch initializes after a server upgrade” on page 152.

In this guide

The *Symposium Express Call Center Planning, Installation, and Administration Guide* provides information on how to prepare and install the call center server and client software, and configure call center resources.

Who should read this guide

This guide is for Nortel Networks installers and distributors responsible for installing, upgrading, and configuring Symposium Express Call Center.

Assumptions

This guide assumes that you are preparing to install a new Symposium Express Call Center, or that you are planning to upgrade or make changes to an existing installation.

This guide also assumes the following:

- The M1, M1 IE, or Succession CSE 1000 switch is correctly installed and operational, and is configured for use with Symposium Express Call Center.
- Meridian Mail, if it is used, is correctly installed and operational, and is configured for use with Symposium Express Call Center.
- All customer-supplied PCs are operational and running Windows NT Server 4.0 (Standard Edition), Windows NT Workstation 4.0, Windows 98, Windows 2000, or Windows XP with the most current Service Pack supplied by Microsoft.
- All customer-supplied PCs are using Microsoft TCP/IP.
- The client network is installed and operational.

Access rights

This guide assumes that you have the required privileges and access rights to perform the procedures in this guide. For more information, refer to “User types in Symposium Express Call Center” on page 308.

Optional features

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

Related documents

The following documents provide additional information related to Symposium Express Call Center:

- *Nortel Networks Symposium Call Center Server Release 3.0 Symposium, MI, and Voice Processing Guide*
- *Nortel Networks Symposium Express Call Center Management Guide (NTP 297-2183-904)*
- *Nortel Networks Symposium Express Voice Services Card Installation Guide*
- *Nortel Networks Symposium Express Voice Services Card Maintenance and Troubleshooting Guide*

Skills you need

Introduction

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

Nortel Networks product knowledge

Knowledge of, or experience with, the following Nortel Networks products is helpful when installing and configuring Symposium Express Call Center:

- M1, M1 IE, or Succession CSE 1000 switches
- X11 Release 24.25 and higher
- Meridian Mail

PC experience or knowledge

You require knowledge of, or experience with, the following PC products before installing Symposium Express Call Center:

- Windows NT Server 4.0, Windows NT Workstation 4.0, Windows 98, Windows 2000 Professional, or Windows XP Professional
- client/server architecture
- Microsoft TCP/IP

Other experience or knowledge

The following types of experience or knowledge may also be useful:

- networking
- troubleshooting
- configuring Windows NT Server 4.0, Windows NT Workstation 4.0, Windows 98, Windows 2000 Professional, or Windows XP Professional

Symposium Express Call Center components

Introduction

Symposium Express Call Center is a client/server call center application that provides sophisticated call routing and management information. Symposium Express Call Center consists of the following components, some of which are optional:

- a server that is a customer-supplied PC running Windows NT Server 4.0 (Standard Edition) with Service Pack 6 or higher, and on which the Symposium Express Call Center server software is installed. The Symposium Express Call Center server software processes calls and stores statistics.

Nortel Networks recommends using DELL, Compaq, IBM, and the HP NetServer E60 platforms to ensure compatibility with Symposium Express Call Center software.

- a client that is a customer-supplied PC running either Windows NT Workstation 4.0, Windows 98, Windows 2000, or Windows XP, and on which the Symposium Express Call Center client software is installed. A copy of the client software is always installed on the same PC as the server. In addition, you can install separate copies of the client on additional PCs for your supervisors.
- Symposium Express Call Center software that runs on the server and is accessed and controlled by the client PCs. In this guide, the term “server” refers to the server software.
- Symposium Express Call Center client software that allows you to administer and monitor the server. In this guide, the term “client” refers to the client software.
- a Sybase database that is installed as part of the server installation
- an M1, M1 IE, or Succession CSE 1000 switch that receives and directs calls to the call center application, and software for administering the switch
- a Voice Services card installed in the M1, M1 IE, or Succession CSE 1000 switch that provides front-end voice processing capability to Symposium Express Call Center. You can also use the Voice Services card to play

announcements, play voice menus, and collect multiple digits from the customer. The Voice Services card is an optional feature.

- an embedded or private LAN (ELAN) that connects the M1, M1 IE, or Succession CSE 1000 switch, the server, and the Meridian Administration Terminal (MAT) software
- pcAnywhere 9.2 support software that is installed on the server
- a separate customer LAN (CLAN), if you have more than one client PC, to support communication between the client and server
- Meridian Mail, MIRAN, RAN, or a third-party IVR system, to play announcements if you are not using Voice Services
- a music source, if you want to play music

Configurations

There are two possible configurations for Symposium Express Call Center:

1. The server and client are both running on a single PC (under Windows NT Server 4.0). There are no additional clients. This is referred to as a coresident installation.
2. The server and client are running on one PC (under Windows NT Server 4.0). Additional PCs run the client application only, under Windows NT Workstation 4.0, Windows 98, Windows 2000, or Windows XP. For the clients running on additional PCs, this is referred to as a stand-alone installation.

Notes:

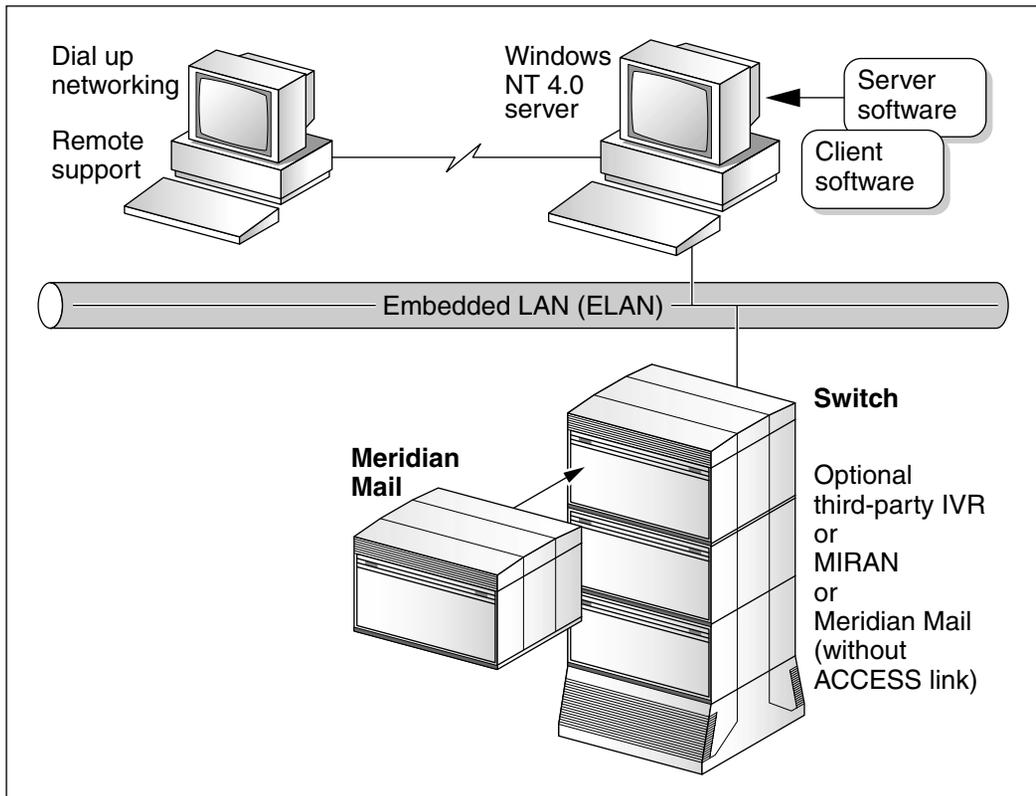
- You can install the Symposium Express Call Center Release 3.0 client on a PC running Windows 2000 Professional/Windows XP Professional. The client installation software for Windows 2000 Professional/Windows XP Professional is packaged on a separate CD. Contact your Nortel Networks distributor for more information.
- To upgrade from a Windows 2000 client PC to Windows XP, you must use the Migration utility provided on the CD. Contact your Nortel Networks distributor for more information.

Description

As shown in the diagrams that follow, Symposium Express Call Center operates in a client/server environment, although the server shares a PC with the client.

The client software provides operational, administrative, and management (OA&M) control for the server. Optional additional client PCs connect to an existing CLAN. The CLAN operates with either Ethernet architecture or Token Ring architecture using the TCP/IP protocol.

The following diagram shows a single-PC coresident installation:



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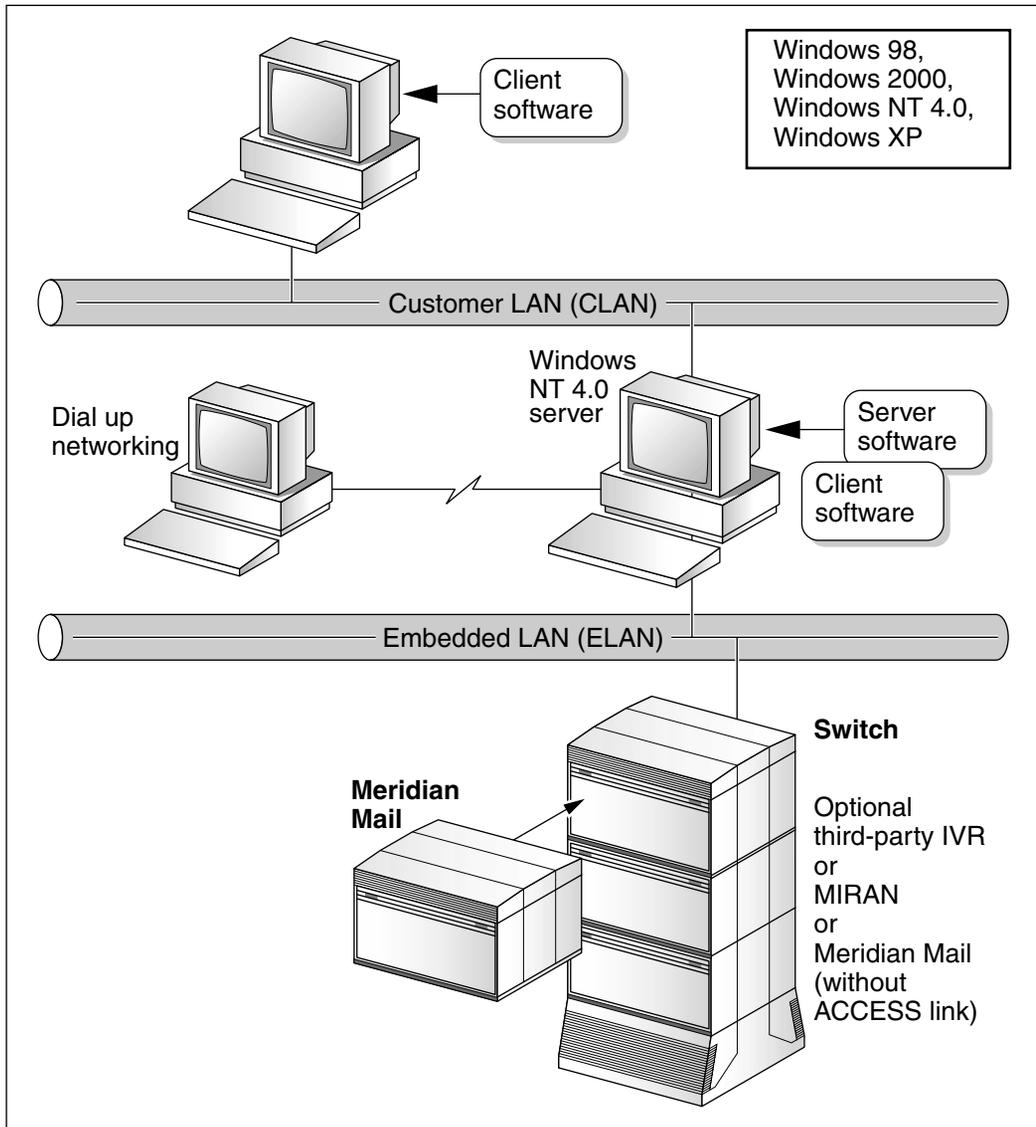
The server connects to both the ELAN and the CLAN (if used). It sends control signals for the M1, M1 IE, or Succession CSE 1000 switch over the ELAN by way of the Application Module Link (AML).

A MAT client PC, running the Meridian Administration Tool, connects to Meridian Mail and the M1, M1 IE, or Succession CSE 1000 switch over a serial link, using VT220 terminal emulation. This PC can control Meridian Mail and the M1, M1 IE, or Succession CSE 1000 switch.

The ELAN can connect to a customer-supplied router to allow access to a wide area network (WAN).

The server connects to a modem to allow remote access by a support PC for maintenance and diagnostics.

The following diagram shows the architecture if additional stand-alone clients are running on separate PCs:



G101185

How Symposium Express Call Center works

The server provides

- call processing and data collection
- network server functions providing
 - network and communications services to client PCs (in a multiple-client PC configuration)
 - communication and control to the M1, M1 IE, or Succession CSE 1000 switch
 - external access to a remote support PC for remote maintenance and diagnostics

The client PC application provides

- the administrative interface to the server
- real-time displays
- report interface
- the OA&M interface for all components on the network, using the MAT common services

The MAT PC communicates with and controls Meridian Mail and the M1, M1 IE, or Succession CSE 1000 switch over a serial link, using VT220 terminal emulation. Instead of using the MAT PC, you can use a customer-supplied VT220 terminal to set up and configure the switch and Meridian Mail.

International language support

Symposium Express Call Center Release 3.0 provides both client and server support for the international operating systems listed below. This includes support for the character sets used in these operating systems, which enables you to enter and display call center data in your local character set.

International language support is made available through two separate CD sets:

- English CD set
- Asian CD set

Each CD set is compatible with a different series of international languages, grouped below into the Latin1 languages and the Asian languages.

Latin1 languages

The English version of the Symposium Express Call Center Release 3.0 server and client CDs is compatible with the following international operating systems:

- English
- French
- German
- Dutch
- Spanish
- Italian
- Danish
- Norwegian
- Finnish
- Swedish
- Brazilian Portuguese

Asian languages

The Symposium Express Call Center Release 3.0 Asian CD set enables you to install Symposium Express Call Center on PCs running the following four Asian operating systems:

- Traditional Chinese

- Simplified Chinese
- Korean
- Japanese

This CD set includes an Asian server CD and an Asian Windows 98/Windows NT client CD.

Note: If you are installing the Symposium Express Call Center client on a PC running Windows 2000/Windows XP in any of the Asian languages shown above, then you can use the regular English Symposium Express Call Center Windows 2000/Windows XP client CD as it already provides support for these Asian operating systems and character sets.

The user interface for the Asian client and server installation programs is identical to the English client and server and, therefore, you may follow the installation process as documented in this guide. For details, see “Installing the server software” on page 102 and “Installing the client software on Windows 98 or Windows NT” on page 194. In addition, the functionality and user interfaces of the Symposium Express Call Center applications contained on the Asian language CDs remain unchanged.

Customer-supplied equipment and data checklist

Introduction

Use these checklists to ensure that you have the required equipment and customer-supplied information.

Hardware and software checklist for the server PC

The following checklist provides a list of requirements for the PC on which the Symposium Express Call Center server and client are installed:

Check	Description
■	minimum processor type 500 MHz Pentium III
■	minimum memory 256 Mbytes
■	minimum 6.3 Gbyte hard drive
■	SVGA monitor with the following specifications:
■	can be 14" (a 15" or 17" monitor is optional)
■	can have an 800 x 600 minimum display setting, with a recommended minimum display setting of 1024 x 768
■	keyboard
■	mouse
■	one of the following tape drives:
	Seagate STD28000N
	Tandberg MLR1
	Tandberg SLR4
	Tandberg SLR5
	Tandberg SLR50
■	CD-ROM drive (4x speed minimum)
■	3.5" floppy drive
■	10 BaseT network interface card for connection to the ELAN
■	modem, V32, or V32bis compliant, with minimum 28 800 baud rate
■	(optional) network interface card for connection to the CLAN (required if you are installing one or more additional client PCs)
■	one parallel port
■	two serial ports

Check	Description
-------	-------------

Drive partitioning

You must create the server partitions in the following order and to the following specifications. The C drive must be configured as a Primary Partition and any subsequent partitions must be configured as Logical drives within Extended partitions.

■ First partition

- for the co-resident client software
- disk partition letter must be C
- minimum size of 1 Gbyte
- system type of FAT or NTFS
- must be located on disk 0
- must be configured as a Primary Partition

■ Second partition

- for the server software and operating system (Windows NT 4.0)
- disk partition letter must be D
- minimum size of 4 Gbytes
- system type of NTFS
- must be configured as a Logical drive within an Extended partition
- minimum paging file of RAM plus 11 Mbytes. For example, if you have 256 Mbytes of RAM, then you need 267 Mbytes for the paging file (256 Mbytes + 11 Mbytes). (Microsoft recommendations)

■ CD-ROM

- You can configure this device on any available drive letter.
 - minimum speed of 4x
-

Check Description

- PC up and running with Windows NT Server 4.0 (Standard Edition with Service Pack 6 or higher) installed as a stand-alone server on the D partition; Remote Access Service; and Microsoft TCP/IP installed
 - SNMP service is running
 - RAS service is running
 - no screen saver is configured
 - the Meridian Release is X11R24.25 or higher, and all the appropriate M1 patches have been applied
 - Ethernet connections ready at the M1, M1 IE, or Succession CSE 1000 switch (cable and transceiver/MAU)
 - customer- or Nortel Networks-supplied hub for the ELAN
 - one PC equipped with VT220 emulation software and serial cable for Meridian Mail connection
 - network connection and cable ready to connect the server to the CLAN if additional client PCs are required
 - list of unique names and IP addresses for all equipment on both the CLAN and ELAN (see the following checklists)
 - (optional) cable ready to connect the ELAN to the customer WAN
 - (optional) customer-supplied UPS for the server
-

Note: If you are upgrading from Symposium Express Call Center 2.0, then you must ensure that you remove PEPs NE025003P013S and NE025003P024S from the server prior to upgrading.

Hardware and software checklist for additional client PCs with Windows 98 or Windows NT

The following checklist provides a list of requirements for additional Symposium Express Call Center clients installed on separate dedicated PCs with Windows 98 or Windows NT operating systems.

Note: Local Administrator access is required to install the client on Windows NT 4.0 Workstation.

Check	Description
-------	-------------

Each client PC should have

- minimum processor type 166 MHz Pentium II
- minimum memory 32 Mbytes for Windows 98 (64 Mbytes for Windows NT Workstation 4.0)
- 1 Gbyte hard drive (minimum 300 Mbytes space free)
- SVGA monitor with the following specifications:
 - can be 14" (a 15" or 17" monitor is optional)
 - can have an 800 x 600 minimum display setting, with a recommended minimum display setting of 1024 x 768
- keyboard
- mouse
- CD-ROM drive (4x speed minimum)
- 3.5" floppy drive
- network interface card for connection to the CLAN

Check	Description
■	PC up and running with Windows NT Server 4.0 (Standard Edition with Service Pack 6 or higher), or Windows NT Workstation 4.0 (with Service Pack 6 or higher), or Windows 98. The following version of Windows 98 is supported:
■	Windows 98 (first edition). For Windows 98 (second edition) to function successfully, you must manually uninstall ODBC 4.0 before installing Symposium Express Call Center 3.0.
	Symposium Express Call Center 3.0 requires ODBC driver pack V3.5 and ODBC DLL version 3.51.171300. You can view the current version number by viewing the properties of the ODBC DLL file, or by running ODBCAD32.EXE from the system32 directory, and then selecting the Drivers tab. If you do not have the correct version, download it from the Microsoft web site.
■	Microsoft TCP/IP protocol installed and configured

Note: Citrix is not supported on client PCs.

Hardware and software checklist for client PCs with Windows 2000/Windows XP

The following checklist provides a list of requirements for Symposium Express Call Center clients installed on dedicated PCs with Windows 2000 Professional or Windows XP Professional.

Note: Local Administrator access is required to install the client on Windows 2000/Windows XP.

Check	Description
--------------	--------------------

Each client PC should have

- minimum processor type 166 Mhz Pentium 11 or higher compatible CPU
 - 64 megabytes (Mbytes) of RAM recommended minimum; more memory generally improves responsiveness
 - 2 Gbyte hard drive with a minimum of 500 Mbytes of free space
 - actual space required depends on options installed
 - SVGA monitor with the following specifications:
 - can be 14" (a 15" or 17" monitor is optional)
 - can have an 800 x 600 minimum display setting, with a recommended minimum display setting of 1024 x 768
 - keyboard
 - CD-ROM drive (4x speed minimum)
 - 3.5" floppy drive
 - network interface card for connection to the CLAN
 - PC up and running with Windows 2000 Professional (with Service Pack 2) or Windows XP Professional
 - Microsoft TCP/IP protocol installed and configured
-

Note: Citrix is not supported on client PCs.

Installation and configuration checklist

Introduction

Use the information you record in this section in the initial Windows NT Server 4.0 configuration, and during the Symposium Express Call Center server and client software installation. Make as many extra copies of the checklists as required for this installation.

Keycode and serial number

A keycode is a Nortel Networks-supplied code that determines the features and functionality that are installed. When you receive your software, you also receive a keycode. Make sure that you have the correct keycode for the functionality that you require.

If you have purchased the Voice Services option, you must have a second keycode for Voice Services.

Site-specific information

This section gives a brief description of each of the items you must enter during installation.

IP addresses for ELAN and CLAN

If there are two network interface cards in the server PC (that is, one for the ELAN connection and one for the CLAN connection), the system prompts you to enter two IP addresses during installation. You do not require a CLAN if you only use the coresident client software.

IP address for the Voice Services Card

If you are using a Voice Services Card, the system prompts you to enter an IP address for it during installation. You must enter the IP address on the ELAN.

Switch name

This is the name defined in the system for the M1, M1 IE, or Succession CSE 1000 switch. It must begin with an alphabetic character, cannot contain spaces or underscores, and must not exceed 80 characters in length.

Note: Do not use the default switch name; it contains an underscore and is, therefore, not accepted by the Symposium Express Call Center installation.

Note: You must ensure that the switch name does not match the server name.

Site name

This name identifies the call center on reports and defines the channels in which tasks communicate with each other. There are rules for defining host names:

- The name must be a minimum of 6 characters and a maximum of 15 characters. It must begin with a letter and cannot include spaces.
- The site name must be unique and should be supplied by the customer.

If you are upgrading from Release 2.0 to Release 3.0, you must ensure that the site name conforms to these rules.

Host name

The host name must be exactly the same as the computer name. You must enter both names in uppercase. The name must be a minimum of 6 characters and a maximum of 15 characters. It must begin with a letter and cannot include spaces. The host name must be unique and should be supplied by the customer.

To determine the computer name, choose the Windows Start menu → Settings → Control Panel → Network, and then click the Identification tab. The computer name appears in the box named Computer name.

To determine the host name, choose the Windows Start menu → Settings → Control Panel → Network, and then click the Protocols tab. Click TCP/IP, click Properties, and then click DNS. The host name appears in the box named Host name.

To determine the computer name

- 1 From the Start menu, choose Settings → Control Panel → Network.
- 2 Click the Identification tab.

Result: The computer name appears in the box named Computer name.

To determine the host name

- 1 From the Start menu, choose Settings → Control Panel → Network.
- 2 Click the Protocols tab.
- 3 Click TCP/IP → Properties → DNS

Result: The host name appears in the box named Host name.

General information

Record the following information for use during the installation:

Required setup data	Information for this installation
Switch name	
Switch serial number	
Switch type	
Modem phone number for the M1, M1 IE, or Succession CSE 1000 switch	
Keycodes for <ul style="list-style-type: none"> ■ Symposium Express Call Center ■ Voice Services, if purchased 	
Modem phone number for the server	
Site name (all uppercase, 6 to 15 characters, first character must be a letter, hyphen allowed, no spaces allowed)	

- Symposium Express Call Center
- Voice Services, if purchased

Required setup data	Information for this installation
---------------------	-----------------------------------

Host name/Computer name (all uppercase, 6 to 15 characters, first character must be a letter, hyphen allowed, no spaces allowed)

Workgroup name (the computer cannot belong to a domain)

Customer company name (cannot be blank)

Customer representative's name (cannot be blank)

Customer number

Administrator password

NGenDesign password (default: Nortel) (new password)

NGenDist password (default: ntdist) (new password)

Type of modem for server

User name (for CLAN access)

Password (for CLAN access)

IP addresses and names

Record the IP addresses and names supplied for the client PCs, the MAT PC, the server, the M1, M1 IE, or Succession CSE 1000 switch, Meridian Mail, Voice Services card, and other equipment accessible through the CLAN and the ELAN. Include the name and serial number for the relevant switch.

To determine the serial number

- 1 Load Overlay 22.
- 2 At the REQ prompt, type **TID**.

3 Press Enter.

See your LAN administrator for information about addresses, subnet masks, and gateways. Use the following table to record the information:

Name	IP address	Subnet mask	Information for this installation
Switch (M1, M1 IE, or Succession CSE 1000) Primary IP address on ELAN			
Switch (M1, M1 IE, or Succession CSE 1000) Secondary IP address on ELAN			
Note: The Option 11C switch uses only the Primary IP address (AUX ID).			
ELAN server			
ELAN router/ gateway IP address (optional WAN connection)			
CLAN server			
CLAN router/ gateway IP address (if used)			
RAS address			

Name	IP address	Subnet mask	Information for this installation
CLAN client (if required)			
Voice Services card installed on the switch, and the IP address must be entered on the ELAN			

Required installation software checklist

Installation items

The following table lists the software you need to complete the Symposium Express Call Center installation.

Note: You may want to refer to the Customer Documentation CD for assistance during the installation process.

Check Qty	Description
1	Symposium Express Call Center Release 3.0 Server Application CD. This CD contains the setup program, all software to be installed on the server, Symposium Link software if required, and pcAnywhere 9.2 remote support software.
1	Symposium Express Call Center Release 3.0 Client Application CD. This CD contains the setup program and all software to be installed on the client PC(s).
1	Symposium Express Call Center Supplementary CD. If supplied with this installation, this CD contains product enhancement packages (PEPs).
1	The emergency repair disk that holds the configuration data for Windows NT.
1	Keycode data. This data determines which software features will be installed. A Symposium Express Call Center 2.0 keycode does not work for Symposium Express Call Center 3.0 features.

Maintenance and diagnostics items

The following maintenance and diagnostics disks are not supplied by Nortel Networks:

Check	Qty	Description
	3	Microsoft MS-DOS 6.20 disks. Use these disks for reinstalling the operating system for maintenance and diagnostics. Refer to Microsoft user documentation for information on installing DOS.

Chapter 2

Configuring the switch

In this chapter

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Overview

Introduction

This chapter provides information on how to configure the M1, M1 IE, or Succession CSE 1000 switch to work with Symposium Express Call Center.

You can use Meridian Mail, MIRAN, the Voice Services card, third-party IVR systems, and music/RAN systems with Symposium Express Call Center to supply voice services to callers. However, because Symposium Express Call Center does not use advanced scripting commands, there is no support for Meridian Mail ACCESS integration.

For switch-related material, refer to the appropriate documentation.

Resources configured on the switch

Symposium Express Call Center requires a special configuration on the M1, M1 IE, or Succession CSE 1000 switch for the following resources:

- Ethernet Application Module Link (AML)
- Voice Services card (optional keycoded feature)
- CDNs and agent phonesets
- IVR ACD-DNs
- Meridian Mail and third-party voice ports
- voice ports
- tones

Minimum Meridian 1 release

The minimum Meridian 1 software release is X11R24.25 for Option 11C and Options 51C to 81C. The Option 11C Mini requires software version 2.00A, which is based on X11R24.24. Information about M1 patches is available on the MPL web site at <https://www21.nortelnetworks.com/MPL> (for Europe), or <https://www43.nortelnetworks.com/MPL> (for North America). For more information, contact your Nortel Networks customer support representative.

Ensure that you have all the latest software packages installed on your M1, M1 IE, or Succession CSE 1000 switch. For more information, refer to the appropriate documentation.

Voice processing requirements

Symposium Express Call Center, using Meridian Mail voice services, a Voice Services card, or other third-party IVR products, provides voice processing capabilities. To support voice processing, you must dedicate Meridian Mail ports, Voice Services ports, or third-party IVR ports. You cannot share Meridian Mail ports with other applications. For example, if you use a voice port for IVR, you cannot use the same port for voice mail.

Calls directed to Meridian Mail by Symposium Link must also use a dedicated set of ports.

Connecting the server to the switch

Introduction

This section lists the correct LAN package for each switch type. It also contains illustrations that show how to connect the Symposium Express Call Center server to the appropriate switch.

Switch LAN packages

Refer to the following table to ensure that you have the correct LAN package for your Meridian 1 switch:

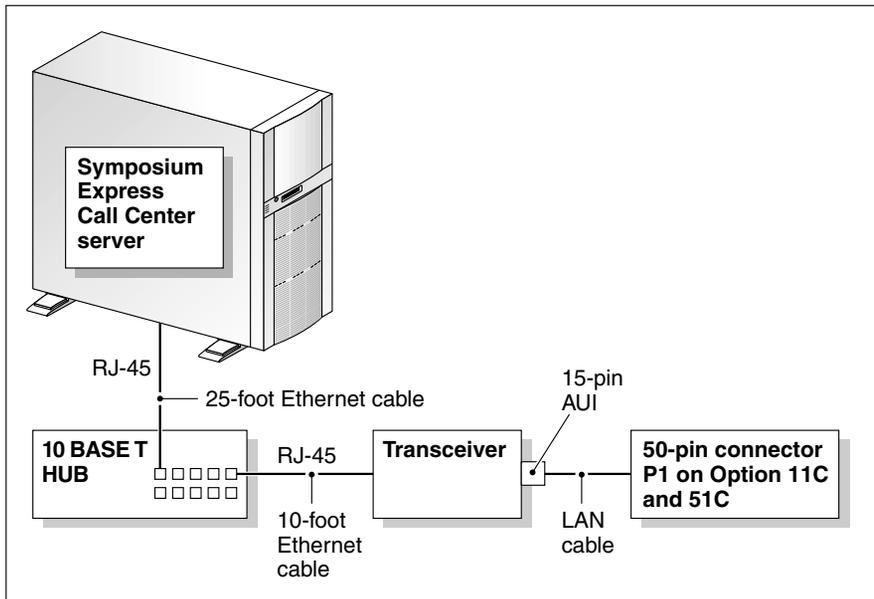
IF your switch is an	THEN you need the LAN package	Contents	Quantity
Option 11C or a Succession CSE 1000	NTHF35AA	10BaseT hub	1
		Transceiver	1
		10-foot Ethernet cable	1
		25-foot Ethernet cable	1
		LAN cable	1
Option 51C	NTHF69AA	10BaseT hub	1
		Ether Twist Transceiver	1
		10-foot Ethernet cable	1
		25-foot Ethernet cable	1
		LAN cable	1
Option 61C or 81C	NTHF36AA	10BaseT hub	1
		Transceiver	2

IF your switch is an	THEN you need the LAN package	Contents	Quantity
		10-foot Ethernet cable	2
Option 61C or 81C	NTHF36AA	25-foot Ethernet cable	1
		LAN cable	2

To connect to Options 11C and 51C

The following illustration shows how to connect your Symposium Express Call Center server to an Option 11C or 51C switch using the LAN packages listed in “Switch LAN packages” on page 46.

For more detailed information, refer to the appropriate documentation.

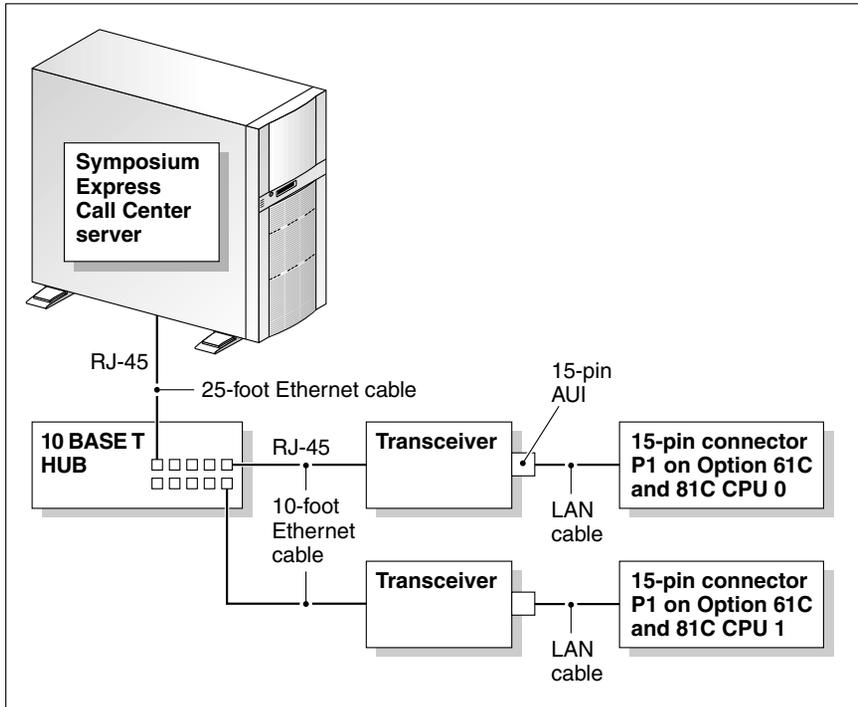


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To connect to Options 61C and 81C

The following illustration shows how to connect your Symposium Express Call Center server to an Option 61C or 81C switch using the LAN packages listed in “Switch LAN packages” on page 46.

For more detailed information, refer to the documentation for the relevant switch.



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Configuring the Ethernet Application Module Link

Introduction

To configure the Ethernet AML, you must perform the following tasks:

1. Define the Ethernet LAN (ELAN).
2. Define one Value Added Server (VAS) for each ELAN configured.

These tasks associate the link (ELAN) with a VAS ID to allow message transmission.

To define the ELAN with LD 17

To define the ELAN with Overlay 17, use these prompts and responses:

Prompt	Response	Description
REQ	CHG	
TYPE	CFN	Configuration Record
ADAN	NEW ELAN 16, CHG ELAN 16, OUT ELAN 16	Add/change/remove I/O device type ELAN 16 (AML over Ethernet).
CTYP	ELAN	Card type
DES	aaa...a	Port designation
LCTL	Yes, (No)	Modify link control system parameters.
N1	128, (512)	Maximum octets per frame. 128 or 512 are available.

Prompt	Response	Description
ADAN	<cr>, **** END	Go to next prompt or exit overlay. Terminate overlay (Release 19 and later).
...	...	

To define VAS ID with LD 17

To define the VAS ID using Overlay 17, use these prompts and responses:

Prompt	Response	Description
REQ	CHG	Change
TYPE	VAS	Value added server
VAS	NEW, CHG, MOV, OUT	Add, change, move, or delete a value added server.
VSID	16	VAS identifier
ELAN	16	Associate VAS ID 16 with ELAN 16.
SECU	Yes, (No)	Turn on (off) security for Symposium Link applications.
INTL	1-12	Time interval for checking Symposium Link for overload, in 5-second increments.
MCNT	5-100 000	Message count threshold for number of Symposium Link messages per time interval.
....	Exit from the overlay.

Defining CDNs and agent phonesets

Introduction

To allow the Symposium Express Call Center to receive calls, you must add and configure CDNs using Overlay 23. Agent phonesets require no special configuration for Symposium Express Call Center.

Note: To add or print TNs, use Overlay 11.

Prompts for CDNs

You should define CDNs with CNTL= NO, RPRT=NO, and AACQ=NO.

VAS ID definitions

Do not enter a VAS ID definition on agent phonesets or CDNs.

To acquire CDNs and agent phonesets

When you acquire a CDN on Symposium Express Call Center, the parameter ASID appears next to the TNB or CDN block. CNTL, AACQ (for CDNs), and AACD (for agent phonesets) are automatically changed to YES.

Note: For an agent to log on to his or her phoneset, the agent ID must be added to Symposium Express Call Center.

LD23

This display shows an acquired CDN:

Prompt	Response	Description
REQ	PRT	Print
TYPE	ACD, CDN	ACD or control DN data blocks

Prompt	Response	Description
CUST	0–99	Customer number
CDN	XXXX	
AACQ	Yes, (No)	Application acquired queue
RPRT	NO	
....	

Configuring IVR ACD-DNs

Introduction

Use this procedure if you are using Meridian Mail or MIRAN. If you are using a Voice Services card, refer to *Nortel Networks Symposium Express Call Center Voice Services Card Installation Guide*, Release 3.0.

An IVR ACD-DN is a DN that applies a specific IVR application to an incoming call. Symposium Express Call Center must acquire IVR ACD-DNs.

You configure IVR ACD-DNs if you use Meridian Mail, the Voice Services card, or another third-party IVR system to play messages to callers. These messages are stored on Meridian Mail, the Voice Services card, or the third-party IVR system, and can be announcements or voice menus. If your system uses a MIRAN card only to provide messages, you do not need to configure IVR ACD-DNs. If your system uses a Voice Services card, you should refer to Chapter 8, “Configuring a Voice Services card,” to configure IVR ACD-DNs.

To configure IVR ACD-DNs with LD 23

To configure IVR ACD-DNs with Overlay 23, use these prompts and responses:

Prompt	Response	Description
REQ	NEW	Create new queue.
TYPE	ACD	ACD data blocks
CUST	0–99	Customer number
ACDN	XXXX	The DN of the ACD queue. This is the number you enter in the VSDN table.
MWC	YES	Indicates that this is a message center and that the queue has agents.
CMS	YES	Command and Status Link Application Protocol used.

Prompt	Response	Description
IMA	YES	Enables IMA attendant.
IVMS	YES	Integrated voice messaging. Creates a message center from which messages can be retrieved.
VSID	XX	Do not enter any VAS ID from LD 17.
MAXP	XX	Indicates the maximum number of ACD agents for this queue.
ALOG	YES	ACD agents are automatically logged on when Meridian Mail is powered on.
NCFW	0	The DN to which calls are forwarded. Set to 0 for agent queues.
IVR	YES	Indicates that the queue can be used with the Give IVR command defined in scripts.
TRDN	XXXX	Default treatment DN if not specified in the Call Routing wizard.
....	

Configuring voice ports

Introduction

Voice ports carry speech to Meridian Mail, the Voice Services card, or an IVR system. In Symposium Express Call Center, you must configure voice ports when the ports are Meridian Mail, Voice Services, or third-party IVR system ports used to play announcements or voice menus.

Note: Voice Services ports are configured differently than Meridian Mail or third-party IVR ports. For information on configuring Voice Services ports, see *Nortel Networks Symposium Express Call Center Voice Services Card Installation Guide*, and the *Symposium Express Voice Services Card Maintenance and Troubleshooting Guide*.

You enter Meridian Mail voice ports or third-party IVR system ports as virtual agent TNs. The class of service must be IMA and VMA to ensure they are virtual agents.

To configure Meridian Mail or third-party IVR voice ports with LD 11

To configure voice ports with Overlay 11, use these prompts and responses:

Prompt	Response	Description
REQ	aaa	NEW, CHG
TYPE	SL1	ACD or control DN data blocks
TN	lll s cc u	Enter the TN of the agent.
Prompt	Response	Description
CLS	VMA, IMA	Ensure that Voice Messaging and Integrated Mailbox Administration are set.
KEY	xx aaa yyyy	Phoneset function key assignments

Prompt	Response	Description
END		Exit from overlay.

Note: For Meridian Mail voice ports, do the following:

1. Ensure that the key layout matches the configuration of keys in Meridian Mail. This matching enables Meridian Mail to answer, disconnect, originate, transfer, and conference calls.
2. If your Meridian Mail passwords are configured to expire, you must change the passwords regularly, or voice processing will stop.

Initializing or updating the switch

Introduction

Symposium Express Call Center cannot process calls if the switch is not operational. If you need to initialize the switch for any reason, you should always shut down Symposium Express Call Center first.

To initialize the switch

- 1 Shut down the Symposium Express Call Center server and clients.
- 2 Perform the upgrade on the switch or reinitialize the switch.
- 3 Restart the switch.
- 4 Restart the Symposium Express Call Center server.

For more information, refer to the appropriate switch documentation.

Changing CDNs on the switch

Introduction

If you need to make changes to CDNs on the switch, you must follow specific steps to avoid causing service breaks in Symposium Express Call Center. For example, if you inadvertently out a CDN that is currently acquired by Symposium Express Call Center, you can cause some services in Symposium Express Call Center to go down. This prevents calls from being handled by Symposium Express Call Center.

To change CDNs on the switch

To make changes to CDNs on the switch, ensure that you follow this sequence:

1. Deacquire the CDN from Symposium Express Call Center.
2. Delete, move, add, or make changes to the CDN as necessary on the switch.
3. Reacquire the CDN on Symposium Express Call Center.

You can acquire and deacquire CDNs on Symposium Express Call Center either from Advanced Functions or with the Import wizard. For information on acquiring and de-acquiring CDNs, refer to the *Nortel Networks Symposium Express Call Center Management Guide*, Release 3.0.

Chapter 3

Server software

In this chapter

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Overview

Introduction

This chapter describes the pre-installation, installation, and post-installation procedures for Symposium Express Call Center server and related software. The following list gives a summary of the procedures:

- Verify Windows NT Server 4.0 settings.
- Configure Windows NT as a stand-alone server.
- Install and verify network services.
- Install Windows NT Service Pack 6 or higher.
- Configure the modem for remote access service.
- Verify system settings.
- Uninstall pcAnywhere 8.0, install and configure pcAnywhere 9.2.
- Install and configure the Symposium Express Call Center server software.
- Upgrade and reinstall server software.
- Migrate Symposium Express Call Center to a new platform server or to Release 3.0.
- Uninstall server application software.

Section A: Pre-installation activities

In this section

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Pre-installation checklist

Introduction

Before you begin installation, ensure the following:

- Your system is set up according to the requirements listed in “Customer-supplied equipment and data checklist” on page 27.
- The M1, M1 IE, or Succession CSE 1000 switch is configured properly for use with Symposium Express Call Center. The minimum software release is X11R24.25 for Option 11C and Options 51C to 81C. The Option 11C Mini requires software version 2.00A, which is based on X11R24.24.

Pre-installation checks

Before you start the installation, you should verify the following:

- Your system hardware and software meet the requirements for Symposium Express Call Center.
Note: If you do not have sufficient space on the hard drive, the installation will fail.
- No other application software is resident on the PC on which the software is being installed.
In particular, Microsoft Internet Explorer or any other web browser or IIS/WWW must not be installed.
- The SNMP service and Remote Access Service (RAS) are installed and running.
- Any power-saving features are turned off. This eliminates the possibility of the automated installation being interrupted when a power-saving feature is turned on.
- There are no screen savers enabled. Screen savers use valuable CPU processing power.

Configuration procedures

Introduction

This section contains procedures for initial configuration of the server operating software using the Windows NT Server 4.0 Control Panel. These procedures include

- changing the network IP addresses in Windows NT
- configuring the RAS service
- configuring site-specific information, including the local date and time

Note: You must install Windows NT Server 4.0 as a stand-alone server before starting this procedure and the RAS service.

What you need

You need the following:

- the IP address of the server
- the operating system installation CD
- the emergency repair disk for this server, or a blank disk if the emergency repair disk is not available
- vendor-supplied operating system CDs and driver disks
- (optional) the disk containing the drivers if a Token Ring network adapter card has been installed for the CLAN

Configuring Windows NT

ATTENTION

You need to configure Windows NT Server 4.0 as a stand-alone server before you begin the installation. Ensure that the host name matches the computer name exactly.

To configure Windows NT

- 1 Press Ctrl+Alt+Delete.

Result: The logon window appears.

- 2 Log on to Windows NT using the system administrator password.

- 3 From the Windows Start menu, choose Settings → Control Panel.

Result: The Control Panel appears.

- 4 Double-click Network.

Result: The Network property sheet appears. The Identification property page is on top.

- 5 Click Change.

Result: The Identification Changes dialog box appears.

- 6 For Computer Name, enter the name for this machine. (Refer to the information you recorded on the worksheets. See page 36.)

Note: The computer name cannot contain spaces. It must contain 6 to 15 characters; the first character must be a letter, and all letters must be in uppercase. Hyphens are allowed.

- 7 For Workgroup, enter the new workgroup name, if necessary.

Note: The server cannot belong to a domain. Leave Domain blank.

- 8 Click OK.

Result: You return to the Identification property page.

- 9 Click the Protocols tab.

Result: The Protocols property page appears.

- 10 Select TCP/IP Protocol.
- 11 Click Properties.
Result: The TCP/IP Properties property sheet appears. The IP address property page is on top.
- 12 Click the DNS tab.
Result: The DNS property page appears.
- 13 If necessary, change the host name to match the computer name that you set in step 6.
Note: The names must match *exactly*, and must be in uppercase.
- 14 Enter the name for the domain supplied by the customer's network department.
- 15 Configure the DNS Service Search Order and the Domain Suffix Search Order, as per the customer's network department's instructions.
- 16 Click the WINS Address tab.
Result: The WINS Address property page appears.
- 17 In the Adapter drop-down list, select the adapter that matches your CLAN network card.
- 18 Enter the Primary WINS Server and the Secondary WINS Server as supplied by the customer's network department.
- 19 Click OK.
Result: You return to the Protocols property page.
- 20 Click the Bindings tab.
- 21 Configure the binding order so that the CLAN comes first, followed by the ELAN card, and then the Virtual Adapters for RAS.
 - a. Click the plus sign (+) located next to each service to display the protocols beneath that service.
 - b. Click the plus sign (+) located next to the protocols to display the adapters.
 - c. Click the up and down arrow buttons to arrange the binding order.
- 22 Click OK.
- 23 Choose No when the Network Settings Change dialog box appears.

Windows NT is now configured. For more information on Windows NT, refer to the appropriate Windows NT documentation.

Installing SNMP, RAS, and TCP/IP Printing services

To verify that the necessary services are installed, and to install them if required

- 1 Log on to Windows NT as **Administrator**.
- 2 In the Control Panel window, double-click the Network icon.
Result: The Network property sheet opens.
- 3 Click the Services tab.
- 4 Verify that SNMP Service is in the list of services. If it is not, follow these steps:
 - a. Insert the Windows NT 4.0 Server Operating System CD in the CD-ROM drive.
 - b. Click Add.
 - c. Select SNMP Service.
Result: A message appears that the setup needs to copy some WinNT files.
 - d. Click OK.
 - e. Select the letter of the CD-ROM drive followed by \1386. For example, if your CD ROM drive is E, select E:\1386.
Note: Once you restart the server, you may be presented with an SNMP error. It is safe to click OK. This requires reapplication of the Windows NT Service Pack. Refer to "Installing WinNT 4.0 Service Pack 6 or higher" on page 71.
- 5 If Remote Access Service is not in the list of services, follow these steps:
 - a. Insert the Windows NT 4.0 Server Operating System CD in the CD-ROM drive.
 - b. Click Add.
 - c. Select Remote Access Service.

d. Click OK.

Note: To configure RAS, follow the procedures in “To verify that the RAS service is set to automatic” on page 70, and “Configuring the Remote Access Service modem” on page 74.

6 Verify that Microsoft TCP/IP Printing is in the list of services. If it is not, follow these steps:

a. Insert the Windows NT 4.0 Server Operating System CD in the CD-ROM drive.

b. Click Add.

c. Select Microsoft TCP/IP Printing.

d. Click OK.

7 Install Service Pack 6. See “Installing WinNT 4.0 Service Pack 6 or higher” on page 71.

To configure the Windows NT SNMP service to forward traps to an NMS (optional)

1 In the Control Panel window, double-click the Network icon.

Result: The Network property sheet opens.

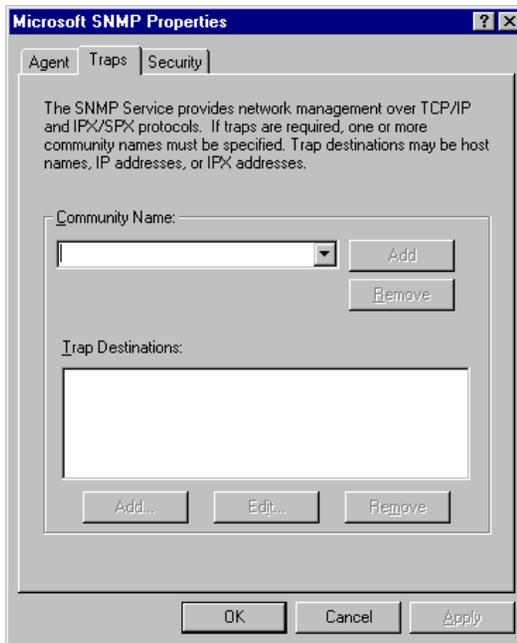
2 Click the Services tab.

3 In the list of Network Services, select SNMP Service.

4 Click Properties.

Result: The SNMP Properties property sheet appears.

5 Click the Traps tab.



- 6 If no community name is defined, type **public** and click Add.
- 7 Add a trap IP destination by clicking Add and typing the IP address of the NMS.
- 8 Click OK.
- Result:** The SNMP Properties property sheet closes.
- 9 Click Close.
- Result:** The Network property sheet closes.
- 10 In the Control Panel window, double-click the Services icon.
- Result:** The Services dialog box appears.
- 11 Select the SNMP Trap Service.
- 12 Click Start.
- Result:** The SNMP Trap Service starts.

- 13 Click Close.

Note: You must also configure the NMS to receive and interpret traps.

To verify that the RAS service is set to automatic

This service must be set to automatic to support dial-in connections from the client PC or from support personnel.

- 1 In the Control Panel window, double-click Services.
- 2 Scroll to Remote Access Server.
- 3 If Remote Access Server is not set to automatic, then do the following:
 - a. Select Remote Access Server.
 - b. Click Startup.
 - c. Select Automatic.
- 4 Click OK.

Installing WinNT 4.0 Service Pack 6 or higher

Introduction

A service pack is an update that Microsoft provides for Windows operating systems. Service packs provide new versions of files and fixes for problems that have been reported.

Requirements

- Windows NT 4.0 Service Pack 6 or higher or the Windows 2000 Service Pack. You can obtain this from a Service Pack CD provided by Microsoft, or you can download it from the Microsoft web site.
- a server powered up, with Windows NT 4.0 Server installed
- the latest Windows NT 4.0 or Windows 2000 security hot fixes
- the Microsoft hot fix security check tool (hfnetchk), which can be run remotely from another server providing it has access to the Internet and Symposium Express Call Center over the Corwan

To verify the installation of Service Pack 6 or higher

- 1 Log on to Windows NT as **Administrator**.
- 2 Open the Control Panel (from the Windows Start menu, choose Settings → Control Panel).

Result: The Control Panel appears.



- 3 Choose Help → About Windows NT.
- 4 Verify that the Windows NT 4.0 version includes the phrase "Service Pack X", where X is 6 or higher. If you do not see this phrase, you must install Windows NT 4.0 Service Pack 6 or higher.

ATTENTION

If you must install or reinstall any features on Windows NT (for example, if you must reinstall SNMP, reinstall RAS, or install a new network card), then you must reinstall the Service Pack.

To install the service pack

You can find instructions for installing the service pack on the Microsoft web site. Also, see the Microsoft web site for the latest hot fixes.

ATTENTION

If you must install or reinstall any features on Windows NT (for example, if you must reinstall SNMP, reinstall RAS, or install a new network card), then you must reinstall the Service Pack.

Configuring the Remote Access Service modem

Introduction

To allow remote support of the server, you must configure the modem for Remote Access Service (RAS). You cannot install the Symposium Express Call Center software unless a modem is configured for RAS on the PC.

To add the modem

- 1 On the Control Panel, double-click Network.
Result: The Network property sheet appears. The Identification property page is on top.
- 2 Click the Services tab.
- 3 If Remote Access Service does not appear in the list, click Add.
Result: The Select Network Service dialog box appears.
- 4 In the Network Service box, select Remote Access Service.
- 5 To copy the Remote Access Service files onto the server, do one of the following:
 - Click Have Disk.
 - or
 - Select the directory in which to search for the files, and then click Continue.
- 6 On the Services property page, select Remote Access Server, and then click Properties.
- 7 If there is no port/device/type description line for COM1, click Add.
- 8 In the Port window, select COM1.
- 9 Click OK.
- 10 Click Cancel to manually select the modem.

- 11 In the Attached Device box of the Configure Port window, select the description that corresponds to your modem.

Note: Be sure to install the correct modem driver that matches your modem (not a generic one). If a generic modem driver is installed, this can result in incorrect modem behaviors, including reduced throughput.

To configure the modem

- 1 On the Remote Access Setup dialog box, ensure COM1 is selected.
- 2 Click Configure.
Result: The Configure Port Usage dialog box appears.
- 3 Click Receive calls only.
- 4 Click OK.
Result: You return to the Remote Access Setup dialog box.
- 5 Click Network.
Result: The Network Configuration dialog box appears.
- 6 Click Configure to configure the TCP/IP settings.
Result: The RAS Server TCP/IP Configuration dialog box appears.
- 7 Click This Computer only.
- 8 Modify the static address pool ranges to unused valid TCP/IP ranges. Use the two RAS IP addresses supplied by the LAN administrator.
- 9 Select Allow remote clients to request a predetermined IP address.
- 10 Click OK.
Result: You return to the Network Configuration dialog box.
- 11 Click OK.
Result: You return to the Remote Access Setup dialog box.
- 12 Click Continue.
- 13 Click OK.
Result: You return to the Network property sheet.
- 14 Click Close.
Result: The program begins binding the network software.

- 15** Choose No when the Network Settings Change dialog box appears.
- 16** Choose File → Close to exit from the Control Panel.

Removing daylight saving time

Introduction

To avoid report synchronization problems, do not set daylight saving time for Symposium Express Call Center.

To remove daylight saving time

- 1 On the Control Panel, double-click Date/Time.
Result: The Date/Time Properties property sheet appears.
- 2 Click the Time Zone tab.
- 3 Click Automatically adjust clock for daylight saving changes to deselect daylight saving time.
- 4 Click OK.

Verifying system settings

Introduction

To ensure a successful installation, there are several operating system settings to verify before starting the installation. These include verifying the

- computer name
- workgroup
- IP address and subnet mask
- host name
- configuration of target PC

The following procedures explain in detail how to verify and change these settings, if necessary.

To check the computer name and workgroup

- 1 From the Windows Start menu, choose Settings → Control Panel.
- 2 Double-click Network.
Result: The Network property sheet appears.
- 3 Click the Identification tab.
Result: The Identification property page appears.
- 4 Verify that the Computer Name is correct.
Note: The computer name must match the host name. It should be between 6 and 15 alphanumeric characters in uppercase. It must begin with a letter and cannot include spaces.
- 5 Verify that the Workgroup is correct.
- 6 Click the DNS tab.
- 7 Verify that the domain name, the DNS service search order, and the domain suffix search order are correct. This information is provided by the customer's network department.
- 8 Click the WINS Address tab.

- 9 Verify that the Primary WINS Server IP address and the Secondary WINS Server IP address are correct. This information is provided by the customer's network department.
- 10 What do you want to do?

IF you want to	THEN
exit	click Cancel.
change the computer name or workgroup	continue with the following procedure.

To change the computer name or workgroup

- 1 On the Identification property page, click Change.
Result: The Identification Changes dialog box appears.
- 2 Change the Computer Name and Workgroup as required.
- 3 Click OK to save your changes.

To check the IP address, subnet mask, and host name

- 1 From the Windows Start menu, choose Settings → Control Panel.
- 2 Double-click Network.
Result: The Network property sheet appears.
- 3 Click the Protocols tab.
Result: The Protocols property page appears.
- 4 In the Network Protocols box, select TCP/IP Protocol.
- 5 Click Properties.
Result: The Microsoft TCP/IP Protocol property sheet appears.
- 6 Verify that the IP Address and Subnet Mask are correct. Change them if necessary.
- 7 Click the DNS tab.
Result: The DNS property page appears.
- 8 Ensure that the Domain box is blank.

- 9 Verify that the Host Name is the same as the Computer Name. If it is not the same, change the Host Name to match exactly. It must be in uppercase.
- 10 Click OK to save your changes.
Result: You return to the DNS property page.
- 11 Click Close.
- 12 If you made any changes, the Restart Windows dialog box appears. Click Yes to restart the computer.

To check the server PC configuration

Ensure that you have configured static IP addresses for both the server CLAN and ELAN, and that DHCP is not supported on the server.

- 1 From the Windows Start menu, choose Programs → Command Prompt.
Result: An MS-DOS window appears.
- 2 At the prompt, type **ipconfig**, and then press Enter.
- 3 Verify the IP address, subnet masks, and default gateways.
- 4 Determine if you can ping your own server by typing **ping aaa.bbb.ccc.ddd**, where *aaa.bbb.ccc.ddd* is the IP address of the server.
- 5 Determine if you can ping the M1, M1 IE, or Succession CSE 1000 switch by typing **ping aaa.bbb.ccc.ddd**, where *aaa.bbb.ccc.ddd* is the IP address of the switch.
- 6 Determine if you can ping the client PC by typing **ping aaa.bbb.ccc.ddd**, where *aaa.bbb.ccc.ddd* is the IP address of the client PC.
- 7 From the client PC, determine if you can ping the server by typing **ping aaa.bbb.ccc.ddd**, where *aaa.bbb.ccc.ddd* is the IP address of the server.
- 8 Type **exit**, and then press Enter to exit from the MS-DOS window.
Note: If you are unable to communicate successfully over the network, see “Problems connecting to the server” on page 387.

Section B: Installing and configuring pcAnywhere

In this section

Overview	82
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Installing pcAnywhere 9.2	84
Configuring pcAnywhere	86
Changing pcAnywhere caller passwords	95
Uninstalling pcAnywhere 9.2	97

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.

You should install and configure Symantec pcAnywhere 9.2 before you install the Symposium Express Call Center software. If you have an older version of pcAnywhere on your server, you must uninstall it first.

Note: Remote access is required to allow your distributor or Nortel Networks Customer Support to log on to your server remotely to provide support.

Uninstalling pcAnywhere 8.0

Introduction

Before you install pcAnywhere 9.2, you must first uninstall any older version of pcAnywhere that you have installed on your server. If you are upgrading from Symposium Express Call Center Release 2.0, then you probably have pcAnywhere 8.0 installed.

To uninstall pcAnywhere 8.0

- 1 Log on to Windows NT as **Administrator** (or as another user with administrator access).
 - 2 Double-click the pcAnywhere icon, and then click **Cancel** to cancel the waiting host.
 - 3 From the Program Manager, click pcAnywhere.
 - 4 Click **Remove pcAnywhere**.
 - 5 When the message `pcAnywhere will be removed from the following directory` appears, click **Yes** to continue.
 - 6 Follow screen instructions to uninstall pcAnywhere.
 - 7 If the message `The system indicates that the following shared file is no longer used by any programs` appears, respond in one of the following ways:
 - For files in `\Program Files\Common Files\Symantec\Shared\` folder, click **Yes**.
 - For files in the `WINNT35\System32` folder, click **No**.
- Result:** pcAnywhere is now removed.
- 8 When the message `Uninstall completed. Some elements could not be removed` appears, click **OK**. (This is a known pcAnywhere error.)
 - 9 When the message `pcAnywhere has been uninstalled from your computer. Do you wish to reboot now?` appears, select **Yes** to restart the server.

Installing pcAnywhere 9.2

Introduction

One licensed copy of pcAnywhere Version 9.2 is provided for the server on the Symposium Express Call Center Release 3.0 Server Application CD. Before you install pcAnywhere 9.2, you must uninstall pcAnywhere 8.0 if it is installed on your server. For more information, refer to “Uninstalling pcAnywhere 8.0” on page 83.

Note: To install pcAnywhere Version 9.2 on the client PC, you must purchase a separate license for the client PC.

Note: You must install PCAnywhere 9.2 before you install Symposium Express Call Center server software. If you install pcAnywhere 9.2 after Symposium Express Call Center 3.0, it installs different versions of MSVCRT.DLL and MSVCRT40.DLL. This causes time problems. For example, when running reports, historical statistics are reported to run one hour behind actual time. After an installation, check this problem: D:\WINNT\SYSTEM32\MSVCRT.DLL should be version 6.00.8397.0, and D:\WINNT\SYSTEM32\MSVCRT40.DLL should be version 4.2000.6164.

To install pcAnywhere Version 9.2

- 1 Log on to the server as **Administrator**.
Note: If you already have a version of Symposium Express Call Center installed, shut down all SMon services by choosing Start → Programs → Symposium Express Call Center → Shutdown.
- 2 Insert the Symposium Express Call Center Release 3.0 Server Application CD into the CD-ROM drive.
- 3 In Windows NT Explorer, browse to E:\SCCS\Apps\PcA9.2\Cd\Disk1 (where E: is your CD-ROM drive).
- 4 Double-click Setup.exe.
Result: The Symantec installation wizard window appears.
- 5 Click Next.
Result: The License agreement appears.

- 6 Select I accept the terms, and then click Next.
Result: The Customer Information window appears.
- 7 Enter your User Name and Organization, and then click Next.
Result: The Setup Type window appears.
- 8 Select Typical, and then click Next.
Result: The Ready to install the program window appears.
- 9 Click Install and wait until Setup wizard completes.
Result: The Support Solutions window appears.
- 10 Click Next.
Result: The Windows Solutions window appears.
- 11 Click Next.
Result: The How to reach Symantec Online Information window appears.
- 12 Click Next.
Result: The Some Additional Options window appears.
- 13 Clear all check boxes, and then click Next.
Result: The Register Symantec pcAnywhere window appears.
- 14 Click Skip.
Result: The program prompts for confirmation.
- 15 Click Yes.
Result: The following message appears: The Install Shield Set-up Wizard has successfully installed pcAnywhere.
- 16 Click Finish.
Result: The system prompts you to restart the server PC.
- 17 Remove the CD from the CD-ROM drive, and click Yes to restart the server.
Result: The server PC restarts. The installation of pcAnywhere 9.2 software is completed.
Note: If the server hangs, restart it manually.

Configuring pcAnywhere

Introduction

Configuration of pcAnywhere sets up a secure caller account to access the server. You can add a caller account for each remote PC, including Nortel Networks. These caller accounts restrict usage of pcAnywhere to appropriate users.

This section describes how to configure pcAnywhere to accept remote connections.

Configuring the network settings and remote PC caller accounts

The procedure “To configure pcAnywhere for Nortel Networks support” on page 88 defines the NGenDist and NGenDesign user accounts and passwords for remote users logging on to the server using pcAnywhere. This ensures that only authorized users can administer the server using pcAnywhere. The procedure also specifies how to set up the pcAnywhere network properties to enable these remote PC callers to access the server.

Password recommendations

Plan the passwords you want to use for NGenDist and NGenDesign. Use the same passwords for the pcAnywhere NGenDist and NGenDesign caller passwords that you plan to use for the Windows NT NGenDist and NGenDesign Windows NT accounts. This simplifies the remote logon process.

To maintain remote access security, change the passwords for the NGenDist and NGenDesign caller accounts regularly. Continue to match the pcAnywhere caller passwords for NGenDist and NGenDesign to the Windows NT user account passwords for NGenDist and NGenDesign.

When you change passwords, Nortel Networks recommends that they meet the following requirements:

- Each password should be six to ten characters long.
- Each password should contain at least one number.

- Each password should not contain common words or nouns.

Example

The following password example meets all of these recommendations:

xyd45fst

To start pcAnywhere for the first time

- 1 Log on to Windows NT as **Administrator**.
- 2 From the Windows Start menu, choose Programs → Symantec pcAnywhere.
Note: If you are asked if you want to register pcAnywhere, click Skip. Click Yes when you are asked to confirm.
Result: The Smart Setup Wizard window appears, and you are prompted for the modem device.
- 3 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 Ensure that Select COM1 is selected, and then click Next.
- 6 Unselect Specify a login name and password, and then click Next.
- 7 Click Finish.
Result: You are placed into the pcAnywhere main window.

To change Windows NT user access rights for pcAnywhere files

Use this procedure if, during pcAnywhere configuration, you get a message that you do not have the right to modify that setting or to create a new caller.

- 1 Close pcAnywhere.
- 2 Go to %Systemroot%\Profiles\All Users\Application Data\Symantec.
Note: %Systemroot% is the WinNT directory.
- 3 Select the pcAnywhere directory.

- 4 Right-click the directory and, from the Properties menu, choose Security.
- 5 Click Permissions and, for Administrators, select Full Control for Type of Access.
- 6 Click OK to save changes.
- 7 Click OK to exit the Properties window.

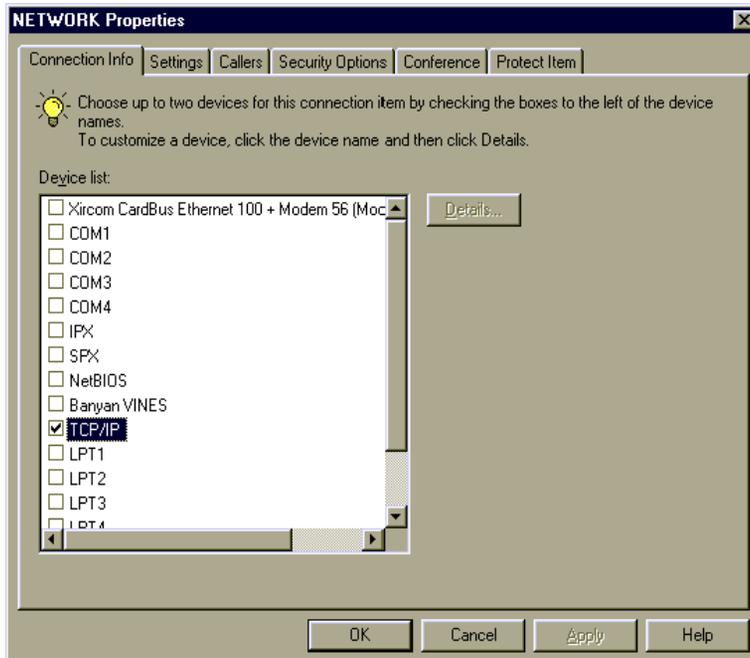
To set the video mode

- 1 From the Windows Start menu, choose Programs → Symantec pcAnywhere.
- 2 From the Tools menu, choose Application Options.
- 3 Click the Host Operation tab.
- 4 For Video mode, ensure that the selected option in the drop-down list is the default.
- 5 Click Apply to save changes.
- 6 Click OK to exit.

To configure pcAnywhere for Nortel Networks support

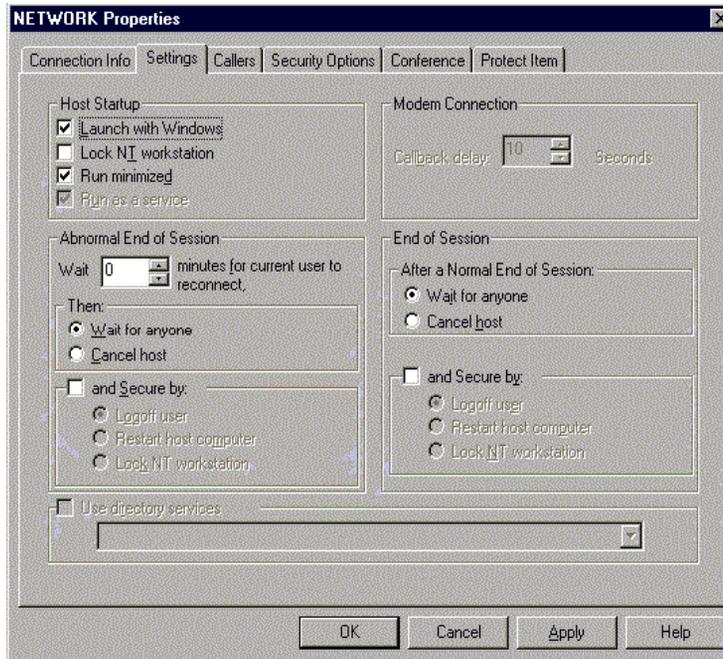
- 1 From the Windows Start menu, choose Programs → Symantec pcAnywhere.
- 2 Ensure that Be a Host PC is selected.
- 3 Right-click the Network icon, and then select Properties.
Result: The NETWORK Properties dialog box appears.
- 4 Ensure that the Connection Info tab is selected.

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



- 6 Click Apply if you made any changes.
- 7 Click the Settings tab.

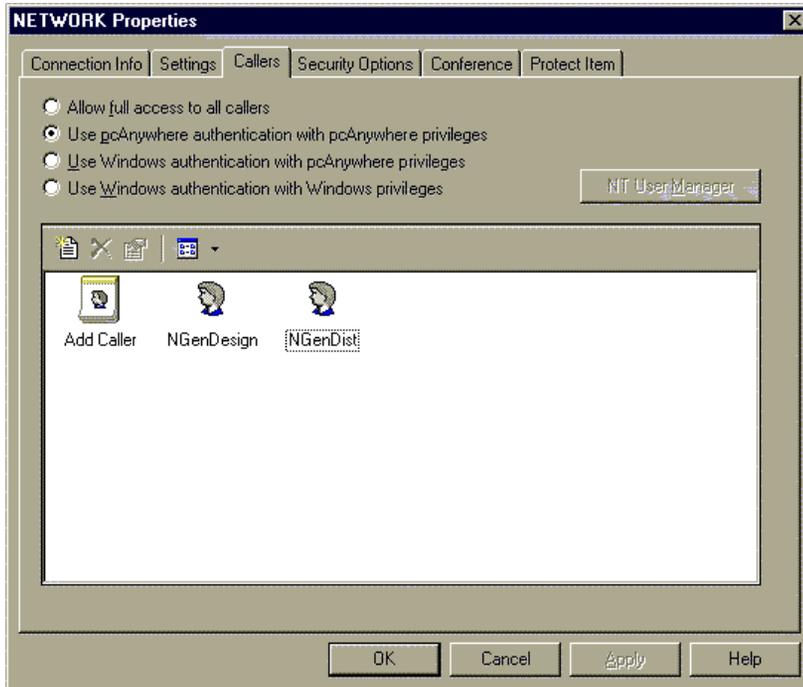
- 8 Ensure that the settings are as shown in the following example:



- 9 Click Apply to save changes.

- 10 Click the Callers tab.

- 11 Select Use pcAnywhere authentication with pcAnywhere privileges, as shown below:



- 12 Double-click Add Caller.

Result: The New Caller Properties window appears.

- 13 Type **NGenDist** for the Caller Name, and then click Next.
- 14 For the password, type **ntdist**. You must enter the password a second time for confirmation.

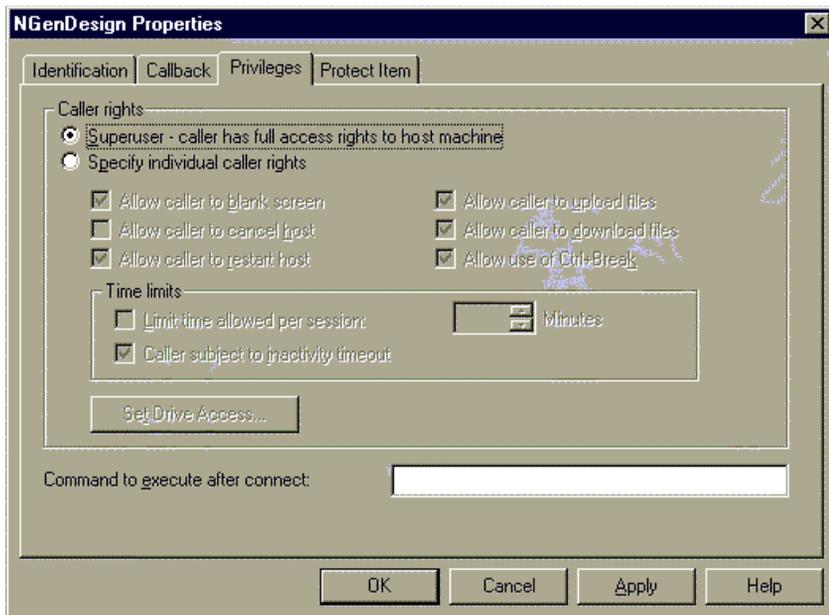


CAUTION

Risk of security breach

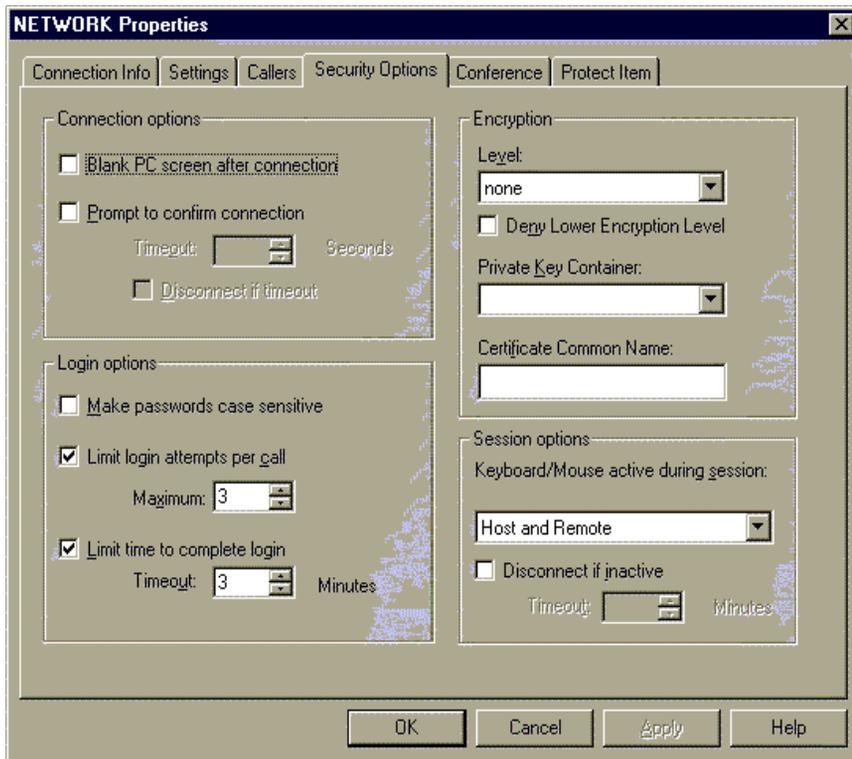
To maintain security, it is important that the support administrator change this password as soon as possible. Advise the support administrator that this must be done when pcAnywhere is first used. The new password must be given to Nortel Networks before you can receive any support.

- 15 Click Next.
- 16 Click Finish.
- 17 Repeat steps 12 to 16 for the NGenDesign account, using NgenDesign as the Caller Name and Nortel as the password.
- 18 Right-click the NGenDesign caller icon, and then select Properties.
- 19 Click the Privileges tab.
- 20 Select Superuser, as shown in the following example:



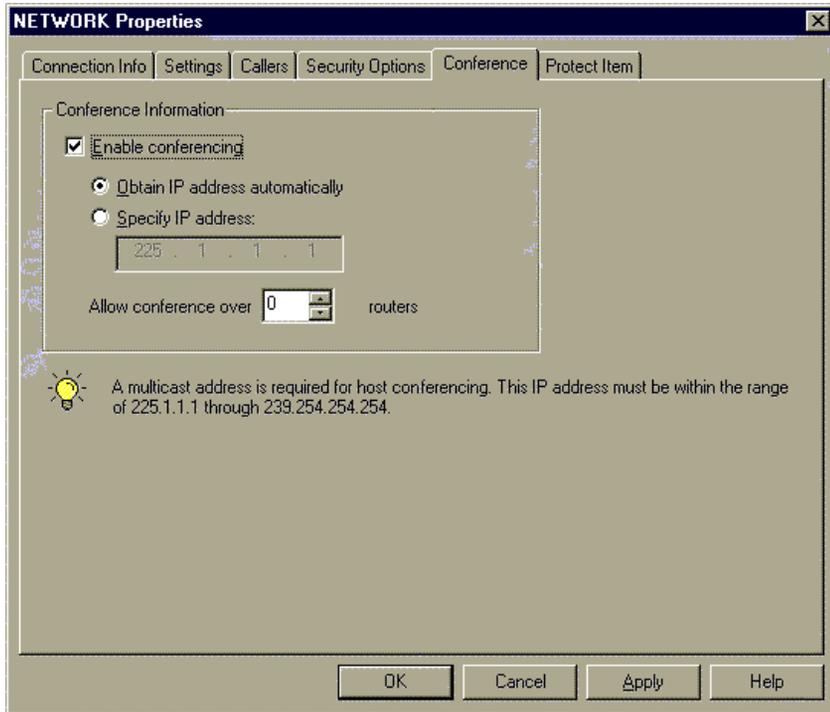
- 21 Click Apply to save the changes.
 - 22 Click OK to exit the Properties window.
- Result:** The NETWORK Properties dialog box appears.
- 23 Click the Security Options tab.

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



- 25 Click the Conference tab.

- 26 Ensure that the Enable conferencing and Obtain IP address automatically options are selected, as shown in the following example:



ATTENTION

Do not enter a password in the Protect Item tab. If this password is necessary, the system administrator should enter it. If the password is misplaced, pcAnywhere must be uninstalled and reinstalled to modify the network icon settings.

- 27 Click OK on the NETWORK Properties dialog box to apply all settings for the HOST PC.

What's next?

To start the Symposium Express Call Center installation, refer to "Installing server software" on page 99.

Changing pcAnywhere caller passwords

Introduction

During the installation and configuration of pcAnywhere, you specify logon passwords for the NGenDist and NGenDesign callers. To maintain system security, change these passwords periodically.

Note: To simplify the remote logon process, use the same passwords for the pcAnywhere NGenDist and NGenDesign caller passwords that you plan to use for the Windows NT NGenDist and NGenDesign accounts. Change the pcAnywhere caller passwords and the Windows NT user account passwords for NGenDist and NGenDesign at the same time.

To change passwords

- 1 Log on to Windows NT as **Administrator**.
- 2 From the Windows Start menu, choose Programs → Symantec pcAnywhere.
Result: pcAnywhere starts.
- 3 Select Be a Host PC.
- 4 Click Network.
Note: Do not double-click the icon or you begin a pcAnywhere session.
- 5 From the File menu, choose Properties.
Result: The NETWORK Properties dialog box appears.
- 6 Click the Callers tab.
- 7 Select Use pcAnywhere authentication with pcAnywhere privileges.
- 8 Right-click the NGenDist icon. Then select Properties.
- 9 Click the Identification tab.
- 10 In the Password box, type a new NGenDist password.
- 11 In the Confirm Password box, type the NGenDist password again.
- 12 Click Apply to save the changes.

- 13** Click OK.
- 14** Right-click the NGenDesign icon. Then select Properties.
- 15** Repeat steps 9 to 13 to assign a new password to NGenDesign.
- 16** Click OK to return to the main pcAnywhere window.
- 17** Exit pcAnywhere.

Uninstalling pcAnywhere 9.2

Introduction

Follow this procedure if you experience problems with pcAnywhere that require reinstallation of the software.

To uninstall pcAnywhere 9.2

- 1 If there is a pcAnywhere Waiting icon on your desktop, double-click it, and then click Cancel.
- 2 From the Windows Start menu, choose Settings → Control Panel.
- 3 Double-click Add/Remove Programs.
- 4 Select Symantec pcAnywhere, and then click Add/Remove.
Result: The Symantec pcAnywhere Setup window appears.
- 5 Click Next.
Result: The Program Maintenance Options window appears.
- 6 Select Remove, and then click Next.
Result: The Remove the Program window appears.
- 7 Click Remove.
- 8 When the process completes, click Finish.
- 9 From the Windows Start menu, choose Shutdown.
Result: The Shut Down Windows dialog box appears.
- 10 Select Restart, and then click Yes.
Result: The server shuts down and then begins to start up.
Note: If the system hangs, restart it manually.

Note: You must install PCAnywhere 9.2 before you install Symposium Express Call Center server software. If you install pcAnywhere 9.2 after Symposium Express Call Center 3.0, it installs different versions of MSVCRT.DLL and MSVCRT40.DLL. This causes time problems. For example, when running

reports, historical statistics are reported to run one hour behind actual time. After an installation, check this problem: D:\WINNT\SYSTEM32\MSVCRT.DLL should be version 6.00.8397.0, and D:\WINNT\SYSTEM32\MSVCRT40.DLL should be version 4.2000.6164.

Section C: Installing server software

In this section

Overview	100
Installing the server software	102
Installing server PEPs	124

Overview

Introduction

Before you start the server software installation, refer to “Pre-installation checklist” on page 62. You must also do the following tasks:

- Install Windows NT Server 4.0, with Service Pack 6 or higher, as a stand-alone server on the server PC.
- Set up two partitions on the PC: D for the server software, and C for the client software.
- Ensure that the client software is not already installed on the server PC. You cannot install the server software if the client is already installed.
- Ensure that no other database programs are installed on the server PC.
- Ensure that the Remote Access Service (RAS) modem is installed before you begin. The installation will fail if RAS is not installed. See “To verify that the RAS service is set to automatic” on page 70.
- Ensure that the SNMP service is installed. The installation will fail if SNMP is not installed. See “To configure the Windows NT SNMP service to forward traps to an NMS (optional)” on page 68.
- Ensure that pcAnywhere 9.2 is installed and configured. See “To install pcAnywhere Version 9.2” on page 84.
- Check for the Distributor’s Technical Reference (DTR) and any Installation Addendums on your regional Symposium Express Call Center technical web site. Refer to the web site at <http://www.nortelnetworks.com> (for end customers), or <http://www.nortelnetworks.com/prd/picinfo/> (for distributors).

Things to remember

Minimize 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 the main installation window to regain focus. To avoid this problem, the program instructs you to close all windows and run setup from the Run dialog box.

Checklist for installing the server software

The following table summarizes the steps involved in installing the server software. You must complete all of these steps:

Step	✓
Obtain the current and default administrator passwords.	
Perform the required pre-installation activities. See page 61.	
Install the DMI. See page 102.	
Install the MAS server software. See page 107.	
Install the Symposium Express Call Center software on the server. See page 111.	
Install any software PEPs. See “Installing software PEPs” on page 229 for Windows 98 or Windows NT, or see “Installing PEPs on a Windows 2000/Windows XP client” on page 281.	
Install the client software. See “Installing the client software on Windows 98 or Windows NT” on page 194, or see “Installing the client software on Windows 2000 or Windows XP” on page 249.	
Complete the required post-installation activities. See page 293.	

Installing the server software

Introduction

Installation of Symposium Express Call Center software on the server PC involves the following steps:

1. Install the DMI.
2. Install the MAS server software.
3. Install Symposium Express Call Center software.

After each step, you must restart the server PC to allow changes to take effect.

ATTENTION

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

If you abort the installation, you must uninstall all components and then restart the installation.

Keycoded features

Some Symposium Express Call Center features are optional. The following procedures include windows that only appear if you have purchased these optional features, such as Voice Services. If you did not purchase these features, you do not see these windows during the installation.

To install the DMI

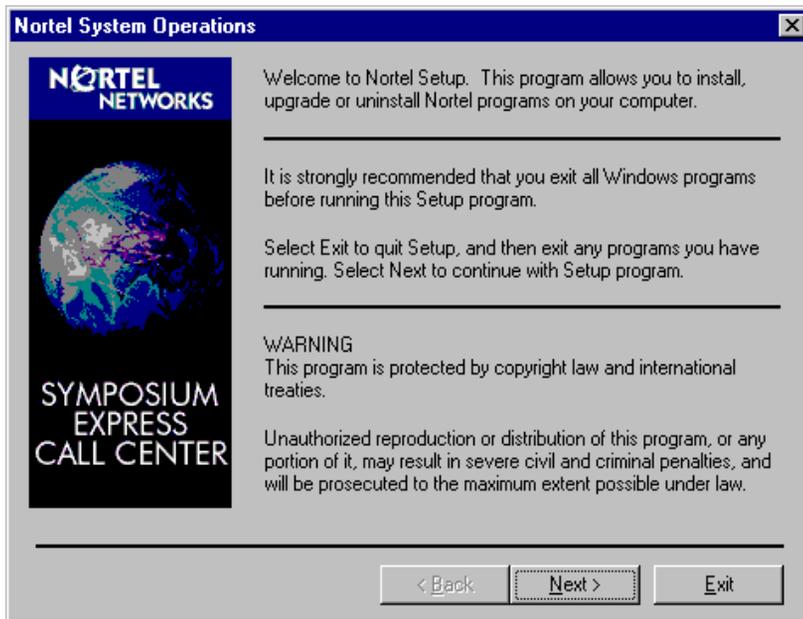
- 1 Insert the Nortel Networks Symposium Express Call Center Release 3.0 Server Application CD into the CD-ROM drive.
- 2 Log on to Windows NT using the system administrator user ID and password.
- 3 Exit all applications, including screen savers, and close all windows.

- 4 From the Windows Start menu, choose Run.
- 5 Click Browse, select Setup.exe from the root directory on the CD, and then click Open.
- 6 Click OK.

Result: The program displays the message Setup determines that DMI is not installed on your system. Do you want Setup to install DMI?

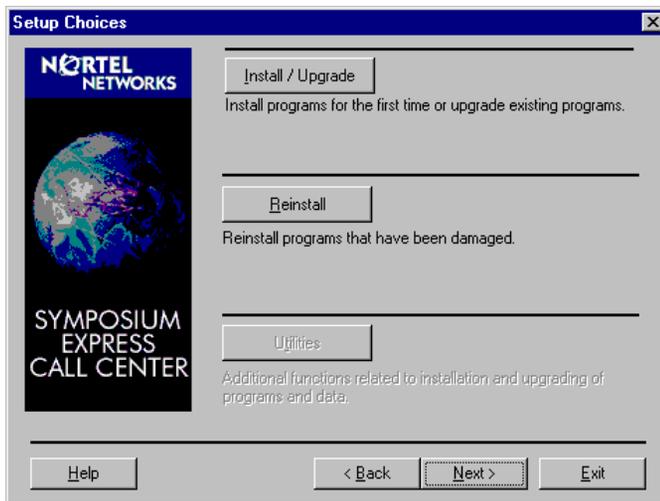
- 7 Click Yes to install the DMI. (If you click No, the installation stops.)

Result: The DMI installs, and the Nortel System Operations welcome dialog box appears.



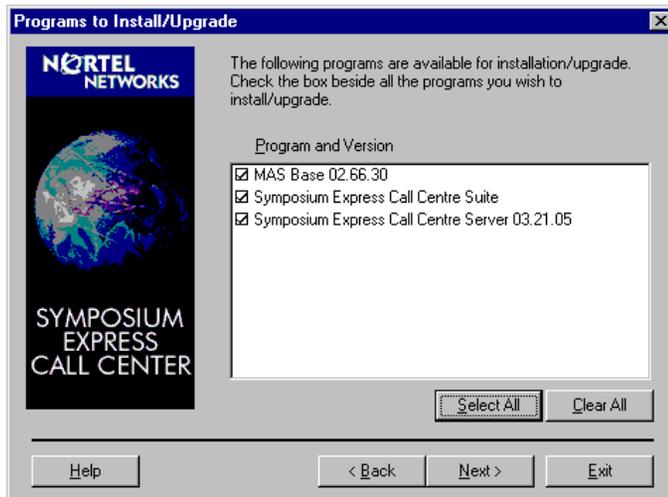
- 8 Click Next.

Result: The Setup Choices dialog box appears.



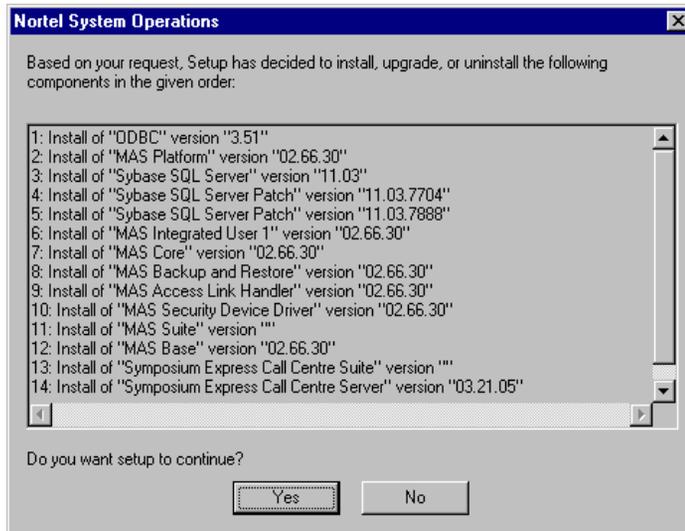
- 9 Click Install/Upgrade.

Result: The Programs to Install/Upgrade dialog box appears.



- 10 Click Select All, and then click Next.

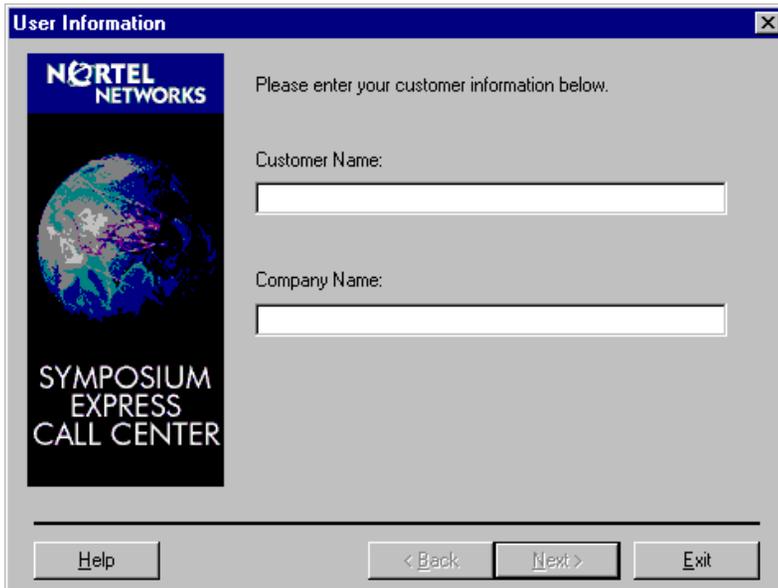
Result: A list of components to install or upgrade appears in a Nortel System Operations dialog box.



- 11 Click Yes and follow the window instructions.
- 12 If a warning message appears because a text printer is not found, click OK to bypass the warning. You can set up printer drivers later. For more information, see "Setting the default printer" on page 302.

- 13** If the message Setup has found out that this drive "D:\\" has less than 64 Mbytes of free space. Do you still want to continue?" appears, then click Yes to continue.

Result: Setup copies files to the server, and then the User Information dialog box appears.



User Information

NORTEL NETWORKS

SYMPOSIUM EXPRESS CALL CENTER

Please enter your customer information below.

Customer Name:

Company Name:

Help < Back Next > Exit

- 14** Enter the customer and company names, and then click Next.

Result: The program installs the software and displays the message Setup is about to reboot the system. Please continue installation after reboot.

- 15** Click OK.

Result: The system restarts and logs on again automatically.

Note:

- If you get any .dll file error messages during the ODBC installation, click Ignore. At the end of the installation, the following error message appears:



If the preceding dialog box appears, complete the following steps:

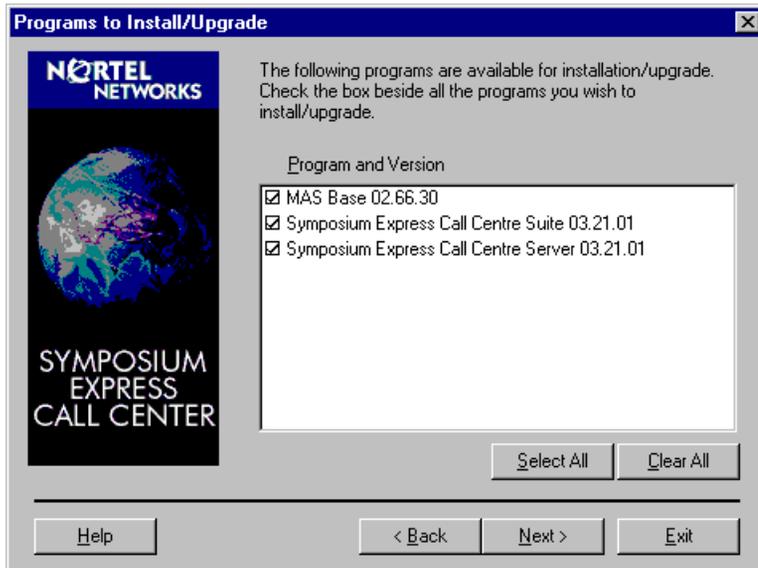
- a. Click OK.
Result: The program prompts you to restart.
- b. Click OK.
Result: The computer restarts.

To install the MAS server software

- 1 Exit all applications, including screen savers, and close all windows.
- 2 From the Windows Start menu, choose Run.
- 3 Click Browse, select Setup.exe from the root directory on the CD, and then click Open.
- 4 Click OK.
Result: The Nortel System Operations welcome dialog box appears.
- 5 Click Next.
Result: The Setup Choices dialog box appears.

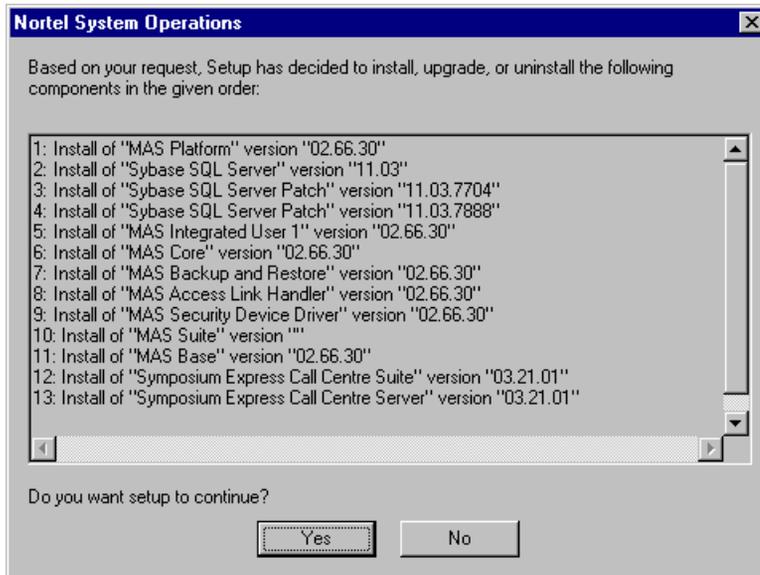
6 Click Install/Upgrade.

Result: Setup examines the system, and the Programs to Install/Upgrade dialog box appears.



- 7 Click Select All, and then click Next.

Result: The Nortel System Operations dialog box appears and lists all components in the order in which they will be installed.



- 8 Click Yes.

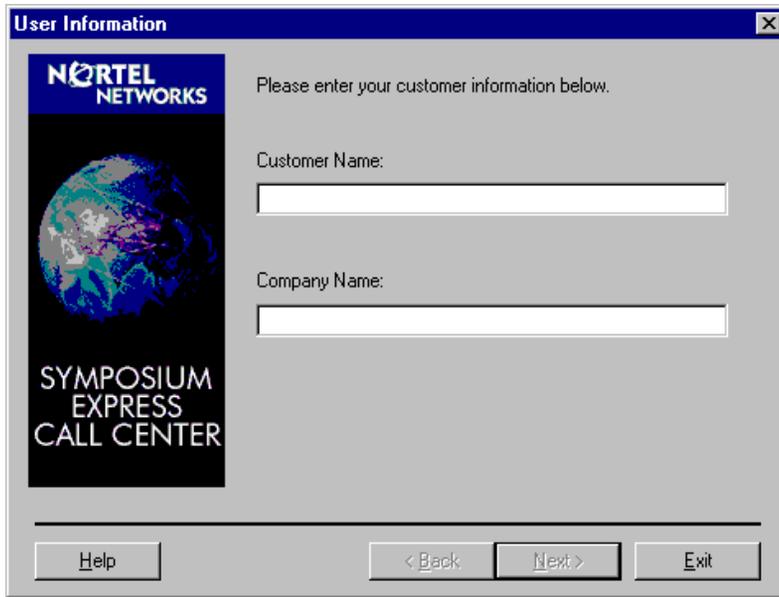
Note:

- If a warning message appears because a text printer is not found, click OK to bypass the warning. You can set up printer drivers later. For more information, see "Setting the default printer" on page 302.

- If the following message appears, click Yes to continue:

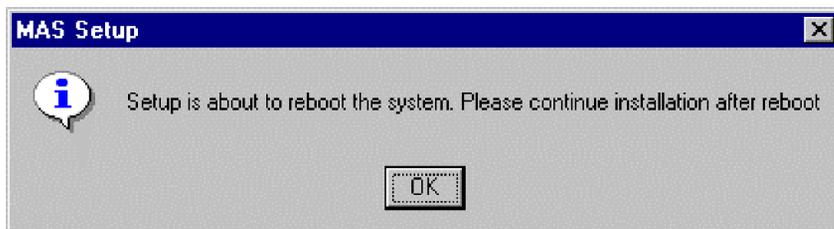
Setup has found out that this drive "D:\\" has less than 64 Mbytes of free space. Do you still want to continue?"

Result: Setup copies files to the server, and then the User Information dialog box appears. The customer name, and the company name are entered by default.



- 9 Ensure that the customer and company names are correct, and then click Next.

Result: The program prompts you to restart.



- 10 Click OK to restart.

To install Symposium Express Call Center software

- 1 From the Windows Start menu, choose Run.
- 2 Click Browse, select Setup.exe from the root directory on the CD, and then click Open.
- 3 Click OK to run.

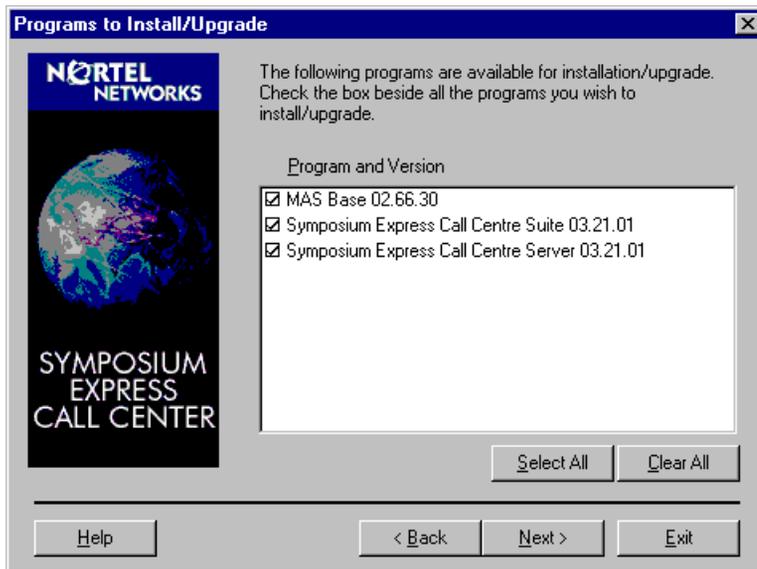
Result: The Nortel System Operations welcome dialog box appears.

- 4 Click Next.

Result: The Setup Choices dialog box appears.

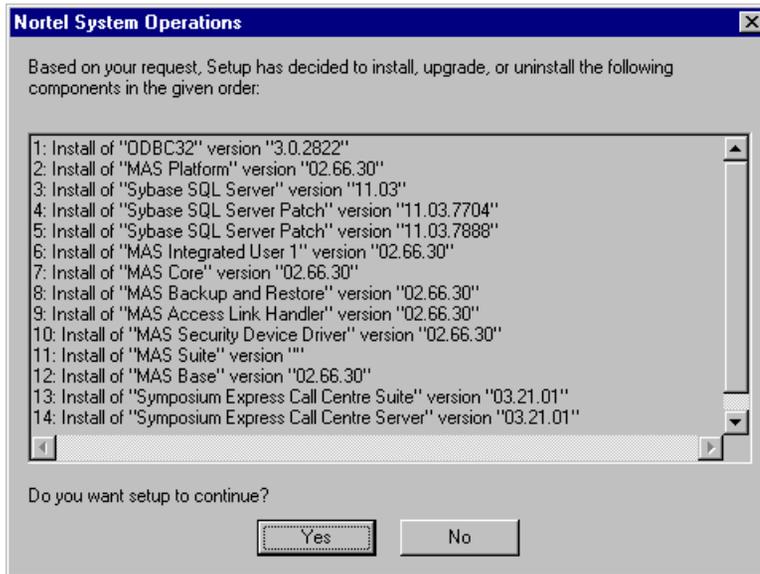
- 5 Click Install/Upgrade.

Result: Setup examines the system, and the Programs to Install/Upgrade dialog box appears.



- 6 Click Select All, and then click Next.

Result: The Nortel System Operations dialog box appears and lists all components in the order in which they will be installed.

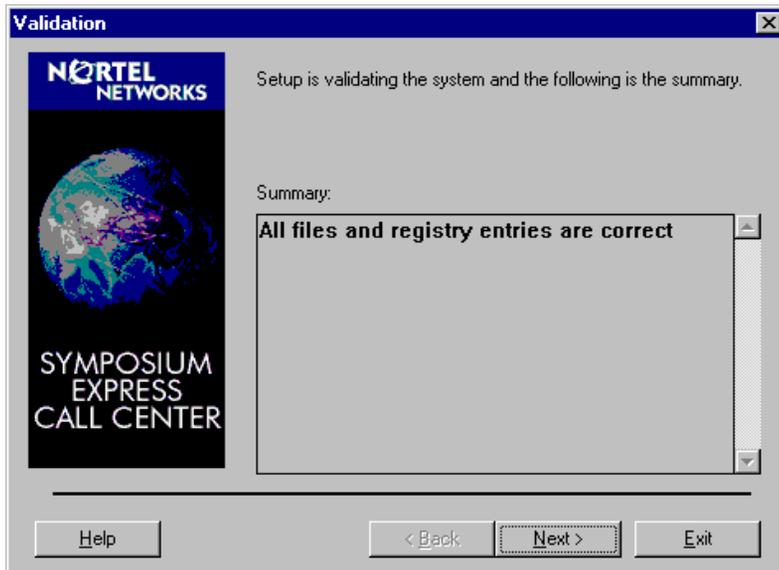


- 7 Click Yes.

Result: The Sybase server is installed.

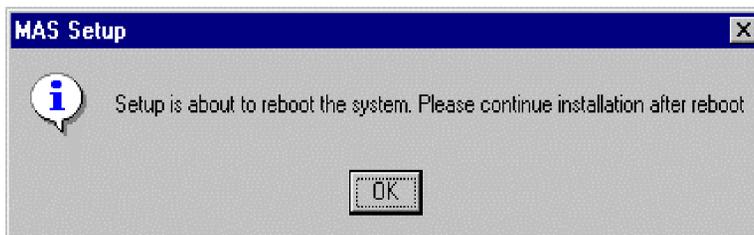
Note: Do not touch the keyboard or mouse during the installation.

Note: This process can take about 30 minutes to complete. When the process is finished, the Validation dialog box appears.



- 8 Click Next.

Result: The program prompts you to restart.



- 9 Click OK to restart.
- 10 Log on to Windows NT with the username **NGenSys** and the appropriate password.
- 11 From the Windows Start menu, choose Run.

12 Click Browse, select Setup.exe from the root directory on the CD, and then click Open.

13 Click OK to run. This takes about 1 minute.

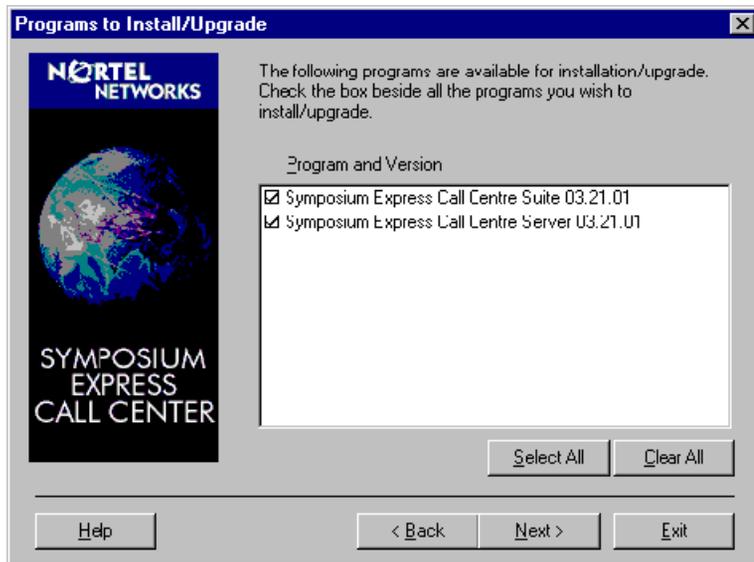
Result: The Nortel System Operations welcome dialog box appears.

14 Click Next.

Result: The Setup Choices dialog box appears.

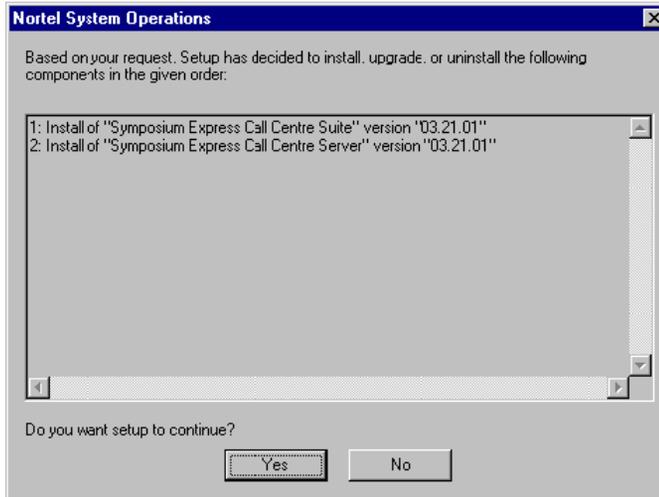
15 Click Install/Upgrade.

Result: Setup examines the system, and the Programs to Install/Upgrade dialog box appears.



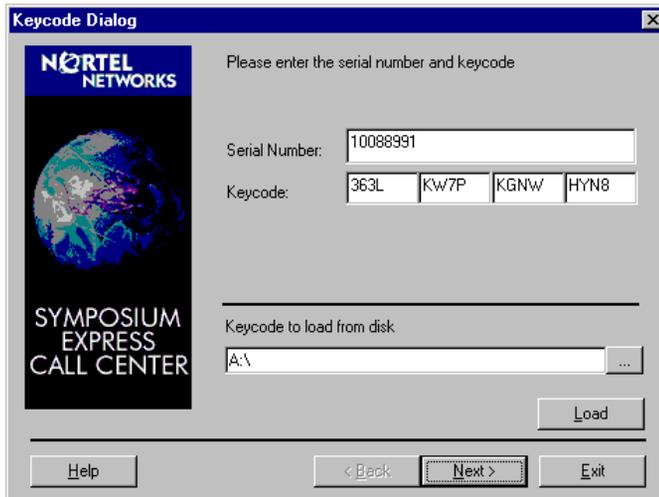
- 16 Click Select All, and then click Next.

Result: The Nortel System Operations dialog box appears and lists all components in the order in which they will be installed.



- 17 Click Yes.

Result: The Keycode Dialog dialog box appears.



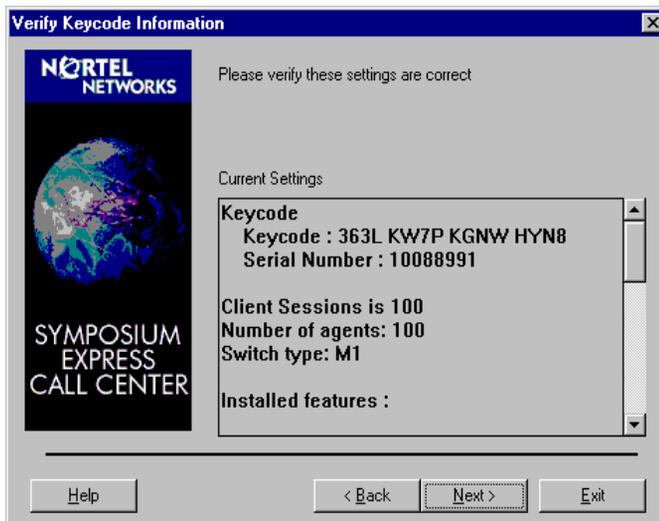
- 18 Enter your keycode in one of the following ways:

- If you have a disk that contains your keycode information, follow these steps:
 - a. Insert the keycode disk into the floppy drive.
 - b. Click the (...) button to open a browse dialog box.
 - c. Locate and select the file that contains the keycode information, and then click Load.

Result: The keycode and serial numbers are entered into the Keycode Dialog dialog box.
 - If your keycode information is stored on a hard disk, follow these steps:
 - a. Click the (...) button to open a browse dialog box.
 - b. Locate and select the file that contains the keycode information, and then click Load.

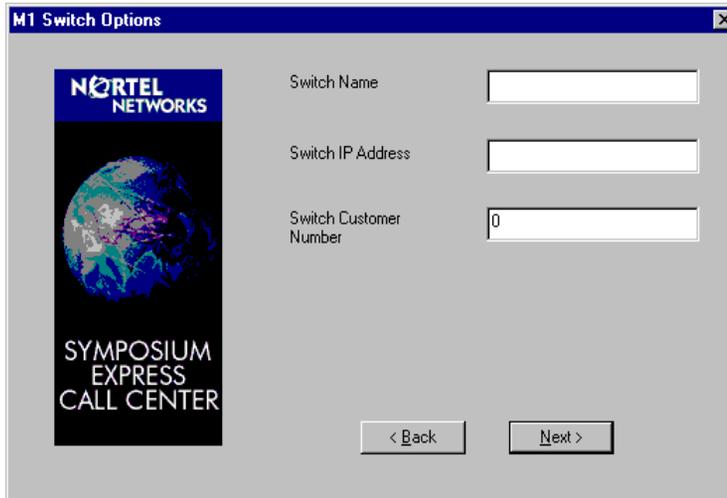
Result: The keycode and serial number are entered into the Keycode Dialog dialog box.
 - Type your serial and keycode numbers in the appropriate boxes.
- 19** Click Next.

Result: The Verify Keycode Information dialog box appears.



- 20 Check that all keycode information is correct. If it is not correct, then click Back to change it. Otherwise, click Next.

Result: The Switch Options dialog box appears.



- 21 Enter the appropriate information for your switch. For more information, see “Installation and configuration checklist” on page 34.

Note: The following restrictions apply to switch names:

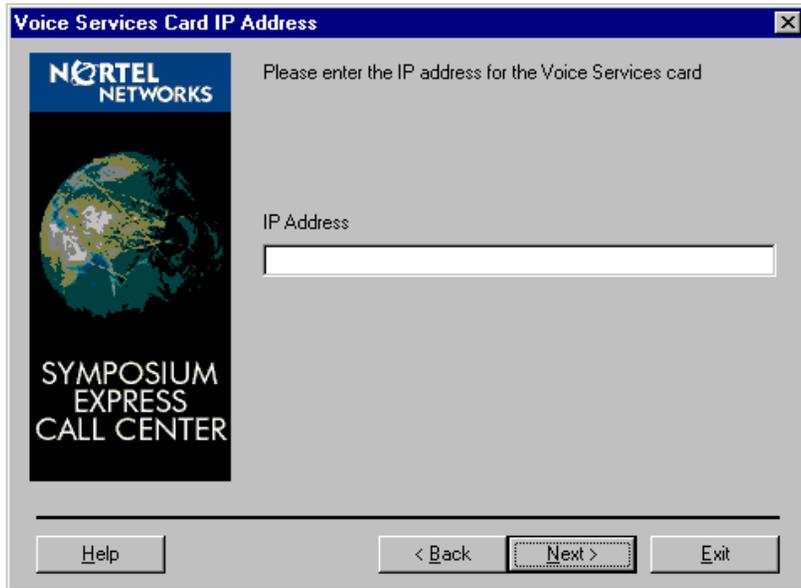
- Valid characters for switch names are A–Z, a–z, 0–9, _ (underscore), and . (period).
- Switch names must begin with an alphabetic character and cannot contain spaces.
- The last character must not be an underscore or a period.
- Switch names must not exceed 80 characters in length.

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 “Server SysOps utilities” on page 375).

- 22 Click Next.

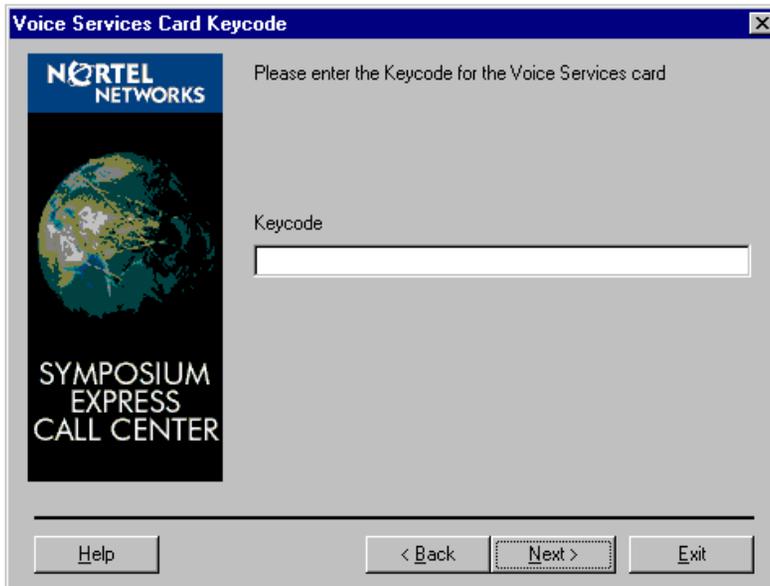
- 23 The following dialog boxes appear only if you have purchased the Voice Services option. If you did not purchase this option, skip to step 26.

Result: The Voice Services Card IP Address dialog box appears.



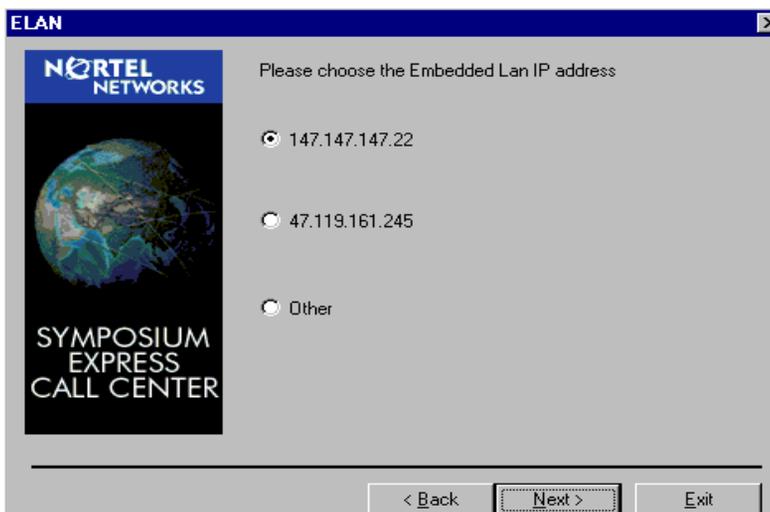
- 24 Enter the IP Address for the Voice Services card, and then click Next.

Result: The Voice Services Card Keycode dialog box appears.



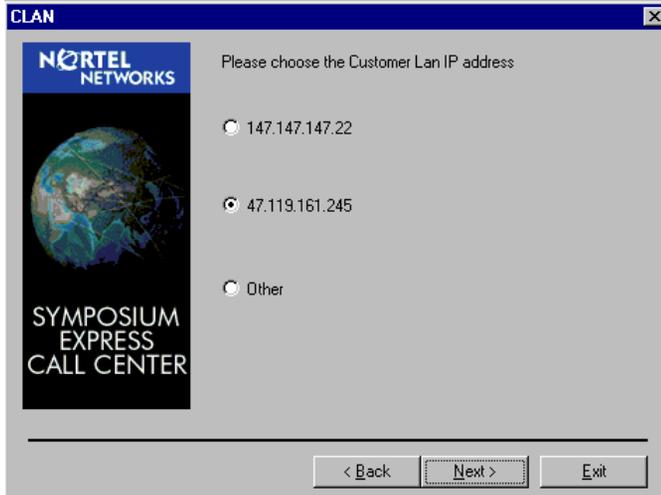
- 25 Enter the keycode to enable the Voice Services option, and then click Next. You must enter the keycode without spaces or hyphens.

Result: The ELAN dialog box appears.



- 26** Enter the ELAN TCP/IP address for the server in one of the following ways:
- If the address appears in the dialog box, select it and then click Next.
 - If the ELAN TCP/IP address does not appear in the dialog box, select Other, enter the correct IP address in the dialog box that appears, and then click Next.

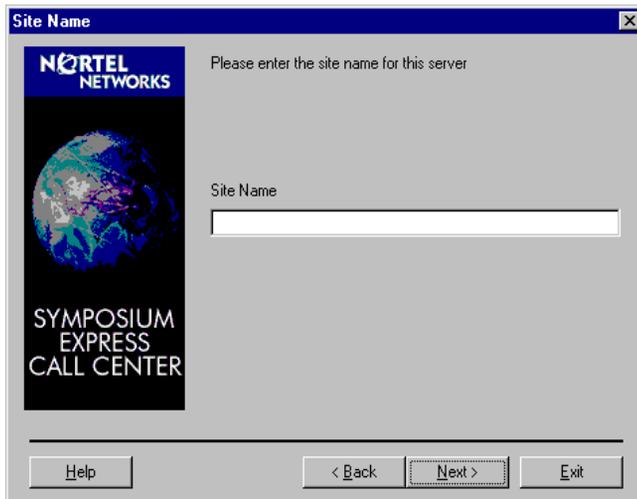
Result: The CLAN dialog box appears.



- 27** Enter the CLAN TCP/IP address for the server in one of the following ways:
- If the address appears in the dialog box, select it and click Next.

- If the CLAN TCP/IP address does not appear in the dialog box, select Other, enter the correct IP address in the dialog box that appears, and then click Next.

Result: The Site Name dialog box appears.

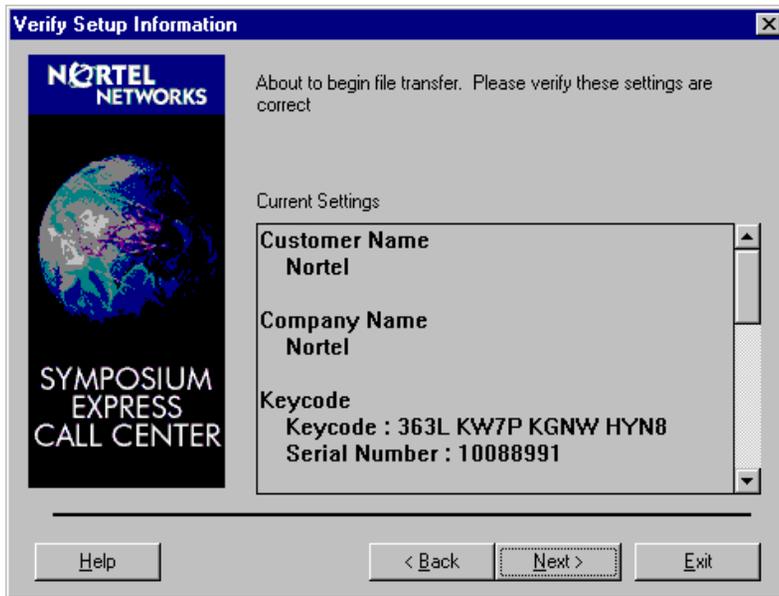


- 28** Enter a site name for the server. For more information, see “Installation and configuration checklist” on page 34.

Note: The site name must be unique and between 6–15 characters long. The only nonalphanumeric characters you can use are hyphens (-) and underscores (_).

- 29 Click Next.

Result: The Verify Setup Information dialog box appears, similar to the following example:



- 30 Examine the list of current settings. If they are incorrect, click Back to make the necessary corrections. Otherwise, click Next.

Result: The program begins copying files to the hard disk drive and a progress bar appears. Dialog boxes appear and are automatically filled in by the program. When the installation is complete, the Reboot dialog box appears.

ATTENTION

Do not touch the keyboard or mouse during the installation process, as they can cause the installation to fail.

31 What do you want to do?

IF you want to	THEN
restart the PC	a. select Reboot Now, and then click Next. b. log on to Windows NT with the user name NGenSys and the appropriate password.
install the coresident client software	a. click Continue and Install Client, and then click Next. b. continue with “Installing the client software on Windows 98 or Windows NT” on page 194, or “Installing the client software on Windows 2000 or Windows XP” on page 249.

Installing server PEPs

Introduction

Product Enhancement Packages (PEPs) are software updates that are installed on the Symposium Express Call Center server or client. This section contains procedures to install server PEPs.

PEPs can be provided on a supplementary CD, in the form of a Service Update pack, or individually. The supplementary CD generally contains Service Updates.

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. Use Service Update packs when available.

Service Update packs and PEPs are available from the Meridian PEP Library. For more information, contact your Nortel Networks customer support representative.

Voice Services PEPs

Voice Services PEPs, up to and including Service Update 1, are supplied with a Voice Services database structure to support new functionality, such as voice menu timeout and prompt/collect digits treatments. Treatments created at later PEP levels cannot be restored to a Voice Services database at earlier PEP levels.

Notes:

- Make sure you have the latest PEPs. Contact your Nortel Networks customer representative for more information.
- The Prompt/Collect Digits feature will only be available in a future release of Symposium Express Call Center.

To install PEPs or Service Update packs

- 1 Log on to the Windows NT Server PC as **NGenSys**. If you are logging on to a stand-alone client PC, log on using the Administrator ID and password.
- 2 Shut down all applications, including screen savers.
- 3 If you are installing PEPs from a CD, insert the PEP CD into the CD-ROM drive.
- 4 Locate the PEP directory on the CD, or the directory into which you downloaded the PEPs.

Example: For the PEP named NE032105P001S, the path may be E:\03.21.05\PEPs\NE032105P001S, where

Code	Meaning
NE	Nortel Networks Symposium Express Call Center
032105	build number of Symposium Express Call Center software
P	<i>General Release</i> (Other options include SU=Service Update, L=Limited, and R=Restricted.)
001	the PEP number
S	a server PC PEP (Other options include C=Client.)

- 5 Check the readme file in the PEP directory for any special instructions or dependencies before installing the PEP.
- 6 Double-click the file runme.exe, and follow the window instructions.

Result: The PEP installer wizard verifies that the PEP can be installed successfully. The PEP installer automatically shuts down and restarts the server. The PEP is installed on the server and all updated files are backed up.

Note: If the PEP installer detects that the PEP cannot be installed successfully, contact your Nortel Networks customer support representative for assistance.

What's next?

Install the client software. For information, “Installing the client software on Windows 98 or Windows NT” on page 194, or “Installing the client software on Windows 2000 or Windows XP” on page 249.

Install any software PEPs. For information, see “Installing software PEPs” on page 229 for Windows 98 and Windows NT. For Windows 2000 or Windows XP, see “Installing PEPs on a Windows 2000/Windows XP client” on page 281.

Complete the required post-installation activities. For information, see “Post-installation” on page 293.

Section D: Upgrading and reinstalling server software

In this section

Overview	128
Upgrading server software	129
Reinstalling server software	153

Overview

Introduction

At some point, you may want to do the following tasks:

- Upgrade the server and client from Symposium Express Call Center Release 2.0 to Release 3.0.
- Add new features with a new keycode.
- Reinstall the same software version due to files being corrupted.
- Migrate the server to a new hardware platform.

To upgrade the software, you need the server and client application CDs.

Upgrading server software

Introduction

Follow these procedures to upgrade the server from Symposium Express Call Center Release 2.0 to Release 3.0.

You can upgrade from Release 1.0 to Release 3.0 only after you first upgrade to Release 2.0. For instructions, refer to the *Nortel Networks Symposium Express Call Center Planning, Installation, and Administration Guide*, Release 2.0.

To reinstall the current version of the server software or add features, see “Reinstalling server software” on page 153.

You cannot downgrade to a previous version of Symposium Express Call Center software.

Note: If the upgrade process is not successful, you can restore your 2.0 system by restoring the software from a backup tape. For more information, refer to the appropriate Release 2.0 documentation.

Requirements

Requirements	✓
Symposium Express Call Center Release 3.0 Application CD	
A blank floppy disk for the creation of an emergency repair disk	
<p>Make sure that you have the following documents available:</p> <ul style="list-style-type: none"> ■ Installation Addendums and Readme files (including the pcAnywhere Readme file from your regional Symposium Express Call Center technical web site. Refer to the web site at http://www.nortelnetworks.com (for end customers), or http://www.nortelnetworks.com/prd/picinfo/ (for distributors). ■ If you are upgrading from a previous release, Release 2.0 or Release 1.0 backup and restore instructions ■ <i>Symposium Express Call Center Management Guide</i>, Release 3.0 ■ <i>Distributor Technical Reference</i> or <i>Documentation Addendum</i> 	
If you are upgrading from Release 2.0, the keycode and serial number from Release 2.0 software	
Keycode and serial number from the Release 3.0 software	
At least 256 Mbytes of free disk space on drive D of the server PC	
The upgrade utility executable on the coresident client. This is contained in PEP NEO25003P015C or higher.	

Checklist for upgrading the server software from Release 2.0 to Release 3.0

The following table summarizes all steps involved in upgrading from Symposium Express Call Center Release 2.0 to Release 3.0. This process takes from 3 to 4 hours to complete, depending on the size of your system.

You must complete all of the following steps:

Step	✓
Use the upgrade utility to download the Symposium Express Call Center Release 2.0 scripts. See page 132. Time to complete: approximately 5 minutes	
Perform the preupgrade. See page 134. Time to complete: approximately 45 to 60 minutes	
Install the DMI. See page 136. Time to complete: approximately 5 minutes	
Install the MAS server software. See page 136. Time to complete: approximately 25 minutes	
Run the Symposium Express Call Center software upgrade. See page 136. Time to complete: approximately 35 minutes	
Use the upgrade utility to upload the Release 2.0 scripts to Release 3.0. See page 147. Time to complete: approximately 10 minutes	
Ensure the M1, M1 IE, or Succession CSE 1000 switch initializes after the server upgrade. See page 152.	

Before you begin

Before you upgrade the server software, you must do the following:

- Perform a full backup of the server. The server is offline for approximately 4 hours during the full backup operation. For more information, refer to the Symposium Express Call Center Release 2.0 documentation.
- Copy any user-defined reports to a separate location before the upgrade.
- Check for the Distributor's Technical Reference (DTR) and any Installation Addendums on your regional Symposium Express Call Center technical web site. Refer to the web site at <http://www.nortelnetworks.com> (for end customers), or <http://www.nortelnetworks.com/prd/picinfo/> (for distributors).

- Configure the M1, M1 IE, or Succession CSE 1000 switch to initialize after a server upgrade. To do this, load Overlay 48 and type **DIS ELAN TEST**, and then press Enter. Next, type **DIS ELAN X TEST** (where X is the Application Module Link), and then press Enter.
- Perform a database migration if you are changing server platforms. For more information, see “Migrating Symposium Express Call Center to a new server platform” on page 169.

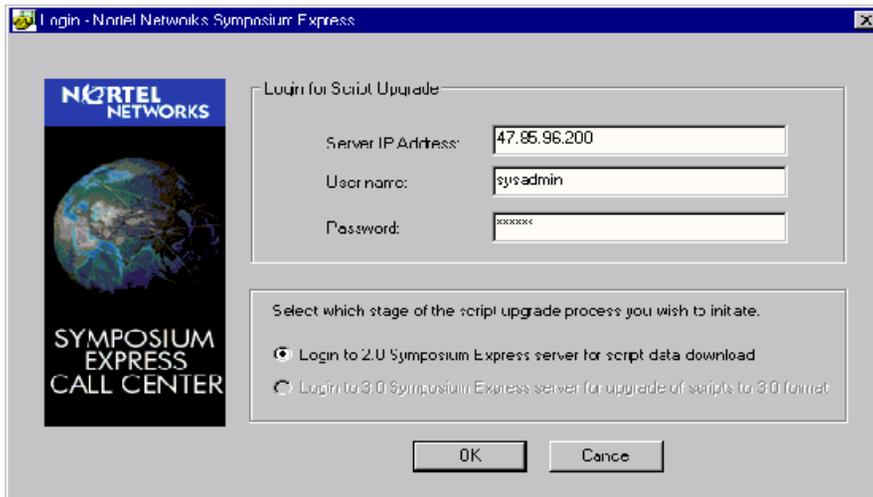
To use the upgrade utility to download the Symposium Express Call Center Release 2.0 scripts

This utility enables you to save all the Symposium Express Call Center Release 2.0 scripts to a .upg file prior to the upgrade to Release 3.0. After you complete the upgrade, you can retrieve and reinstall the scripts.

Note: You must have PEP NEO25003P015C installed on your Release 2.0 coresident client before performing this procedure.

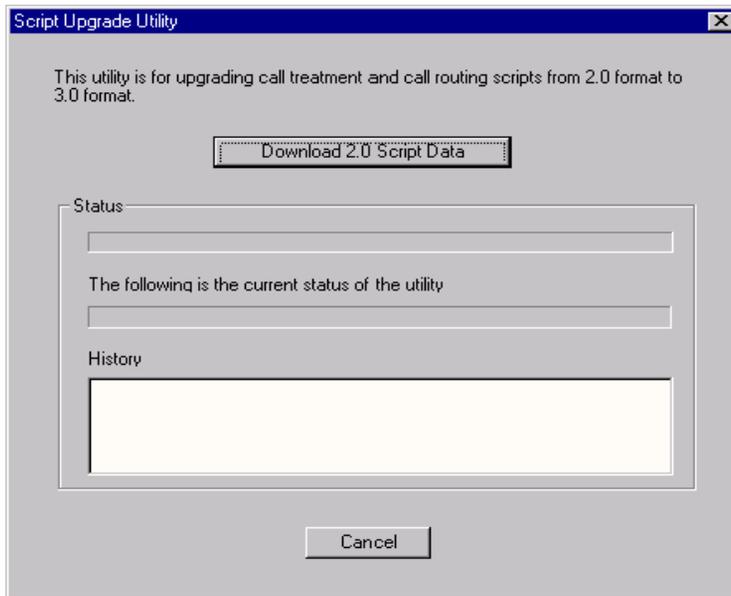
- 1 In the Release 2.0 coresident client, navigate to c:\Nortel\Client\en\bin.
- 2 Double-click nicgcsupgr.exe.

Result: The Login- Nortel Networks Symposium Express window appears.



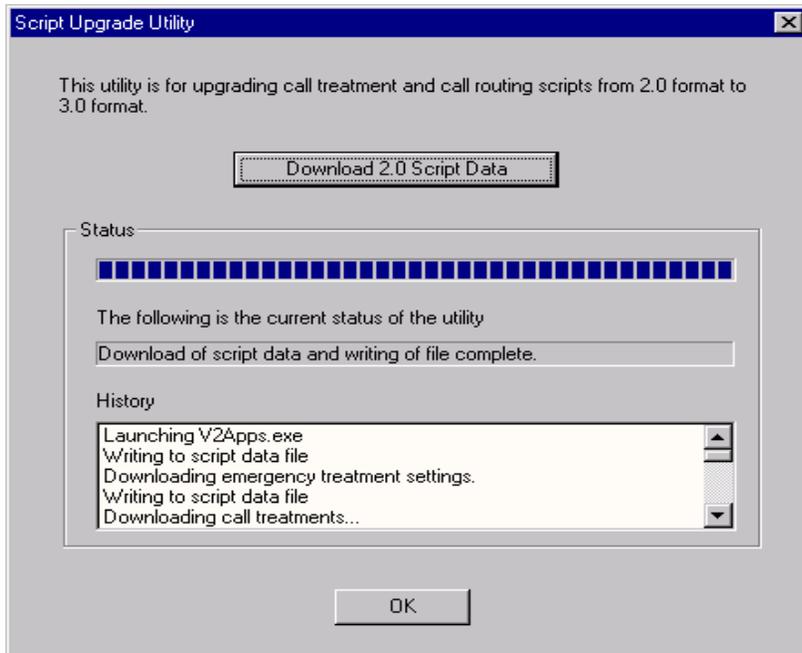
- 3 Enter the Server IP Address, the User name, and the Password, and then click OK.

Result: The Script Upgrade Utility dialog box appears.



- 4 Click Download 2.0 Script Data.

Result: The directory D:\ExpressCDN is created (if it does not already exist), and a storage file called ScriptUpgradeData.upg is put in there. All the call routing and call treatment scripts are stored in this file. When all the data has been saved to the file, the Script Upgrade Utility dialog box looks as follows:



- 5 The V2Apps automatically launches, and you must accept the values in the column as the list of CDNs in the database. The utility then writes out the data to a file.
- 6 Click OK to close the dialog box.

To perform the preupgrade

- 1 Install SNMP service. Refer to “Installing SNMP, RAS, and TCP/IP Printing services” on page 67.
- 2 Install Windows NT 4.0 Service 5 or higher. If you had already installed it, you must reinstall it. Refer to the Microsoft web site for instructions.

- 3 Ensure that the server is fully functional and that all services are up and running.
- 4 Insert the Symposium Express Call Center Release 3.0 Server Application CD into the CD-ROM drive.
- 5 Exit all applications, including screen savers, and close all windows.
- 6 From the Windows Start menu, choose Run.
- 7 Click Browse, select Setup.exe from the root directory on the CD, and click OK.

Result: The Upgrade window appears.

- 8 Click Begin Upgrade.

ATTENTION

If Dr. Watson displays Error code 87 during preconversion, click OK and ignore these error messages. They do not impact the preconversion.

Result: A window appears to remind you that no other applications can be running.

- 9 Close any active applications running on the server, including screen savers, and then click Yes to begin the conversion.



CAUTION

Risk of data loss

Although the message displayed by the program indicates that the conversion can take 45 minutes to an hour, it can actually take much longer, depending on your PC specification and speed. Do not stop the conversion manually. If you stop the conversion, restore Symposium Express Call Center Release 2.0 and begin the conversion again. For more information on restoring, refer to the Release 2.0 backup and restore instructions.

Result: The following message appears: Pre-Conversion will take at least 45 minutes to 1 hour to complete. Please wait while Pre-Conversion is running. Click OK to start.

10 Click OK.

Result: The preconversion begins, and a progress bar appears. All services are automatically shut down at this point. The preconversion process takes at least 45 minutes to complete. MS-DOS windows appear during the process, and text scrolls within the windows. Some windows may remain unchanged for long periods. You may get information dialog boxes saying that certain registry keys were not deleted because they did not exist to begin with. If you get any of these dialog boxes, click OK.

Note: If you get the following warning: Warning: Deletion of \NORTEL\Config registry key failed. Key may have been previously deleted, simply click OK.

11 When the message Upgrade Complete appears, click OK. Continue with "To install DMI" below.

To install DMI

Follow "To install the DMI" on page 102, starting with step 7.

To install the MAS server software

Follow "To install the MAS server software" on page 107.

To upgrade server software

ATTENTION

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

Note: The server application CD is still in the CD-ROM drive and all applications, including screen savers, are closed.

- 1 From the Windows Start menu, choose Run.
- 2 Click Browse, select Setup.exe from the root directory on the CD, and then click Open.

- 3 Click OK to run.

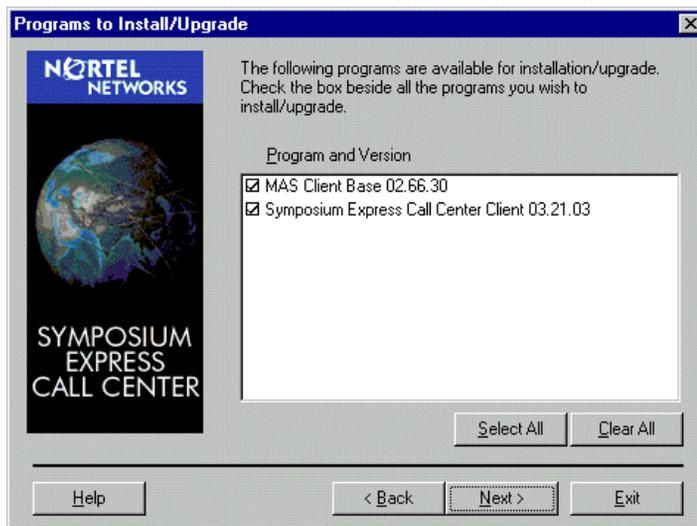
Result: The Nortel System Operations welcome dialog box appears.

- 4 Click Next.

Result: The Setup Choices dialog box appears.

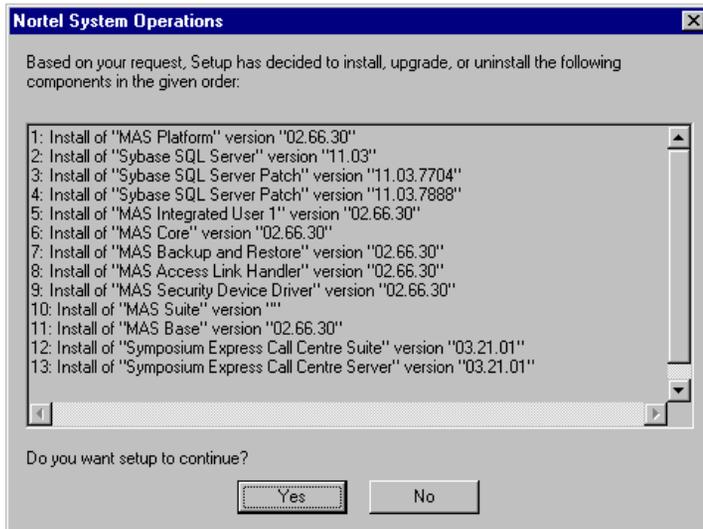
- 5 Click Install/Upgrade.

Result: Setup examines the system, and the Programs to Install/Upgrade dialog box appears.



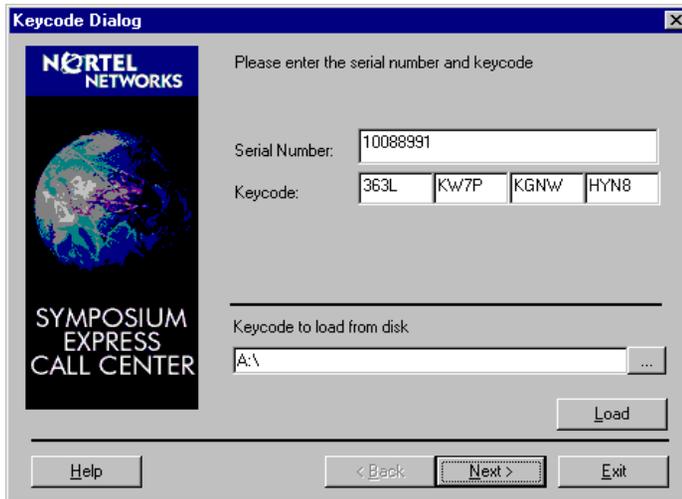
- 6 Click Select All, and then click Next.

Result: The Nortel System Operations dialog box appears and lists all components in the order in which they will be installed.



7 Click Yes.

Result: The Keycode Dialog dialog box appears.



8 Enter your keycode in one of the following ways:

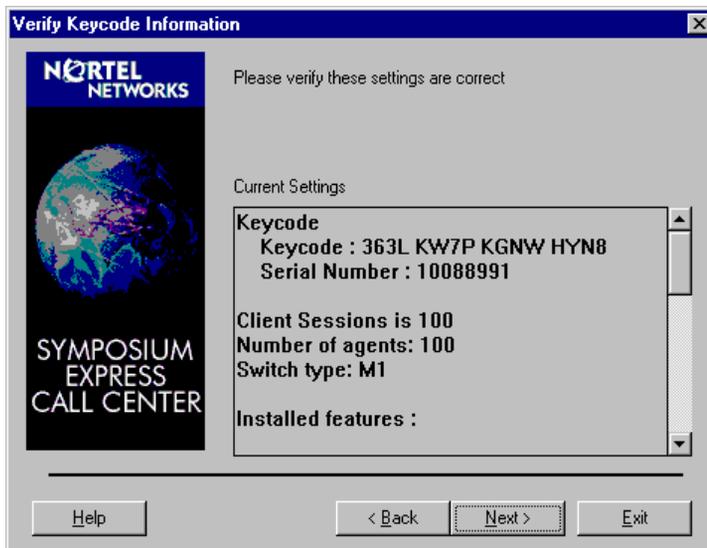
- If you have a disk that contains your keycode information, follow these steps:
 - a. Insert the keycode disk into the floppy drive.
 - b. Click the (...) button to open a browse dialog box.
 - c. Locate and select the file that contains the keycode information, and then click Load.

Result: The keycode and serial numbers are entered into the Keycode Dialog dialog box.
- If your keycode information is stored on a hard disk, follow these steps:
 - a. Click the (...) button to open a browse dialog box.
 - b. Locate and select the file that contains the keycode information, and then click Load.

Result: The keycode and serial number are entered into the Keycode Dialog dialog box.
- Type your serial and keycode numbers in the appropriate boxes.

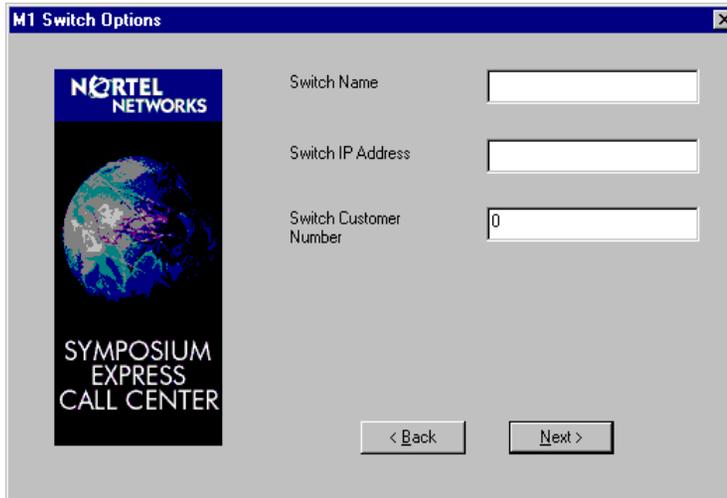
- 9 Click Next.

Result: The Verify Keycode Information dialog box appears.



- 10 Check that all keycode information is correct. If it is not correct, then click Back to change it. Otherwise, click Next.

Result: The M1 Switch Options dialog box appears.



The screenshot shows a dialog box titled "M1 Switch Options". On the left side, there is a logo for "NORTEL NETWORKS" and "SYMPOSIUM EXPRESS CALL CENTER" featuring a globe. On the right side, there are three input fields: "Switch Name", "Switch IP Address", and "Switch Customer Number" (which contains the number "0"). At the bottom of the dialog, there are two buttons: "< Back" and "Next >".

- 11 Enter the appropriate information for your switch. For more information, see "Installation and configuration checklist" on page 34.

Note: The following restrictions apply to switch names:

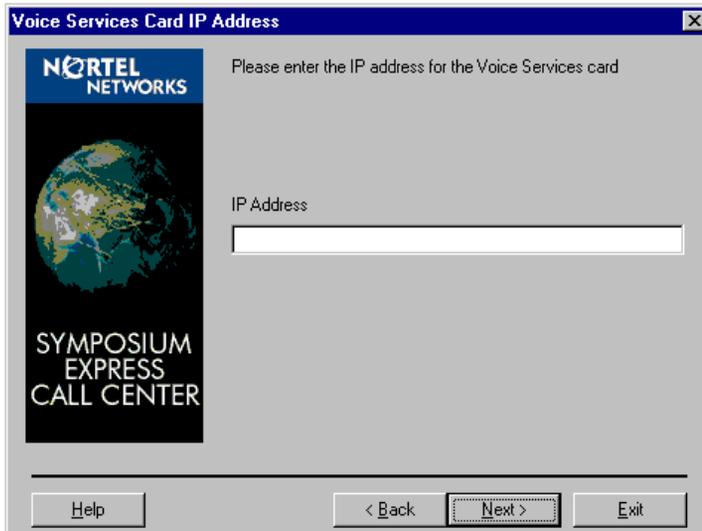
- Valid characters for switch names are A–Z, a–z, 0–9, _ (underscore), and . (period).
- Switch names must begin with an alphabetic character and cannot contain spaces.
- The last character must not be an underscore or a period.
- Switch names must not exceed 80 characters in length.

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 "Server SysOps utilities" on page 375).

- 12 Click Next.

- 13 The following dialog boxes appear only if you have purchased the Voice Services option. If you did not purchase this option, skip to step 16.

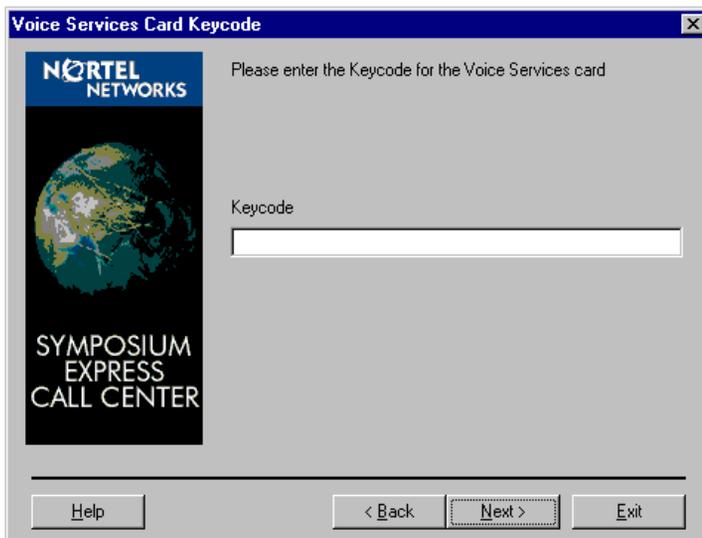
Result: The Voice Services Card IP Address dialog box appears.



The dialog box is titled "Voice Services Card IP Address" and features the Nortel Networks logo and a globe graphic. The text "SYMPOSIUM EXPRESS CALL CENTER" is displayed at the bottom left. The main instruction reads "Please enter the IP address for the Voice Services card". Below this is a text input field labeled "IP Address". At the bottom, there are four buttons: "Help", "< Back", "Next >", and "Exit".

- 14 Enter the IP Address for the Voice Services Card, and then click Next.

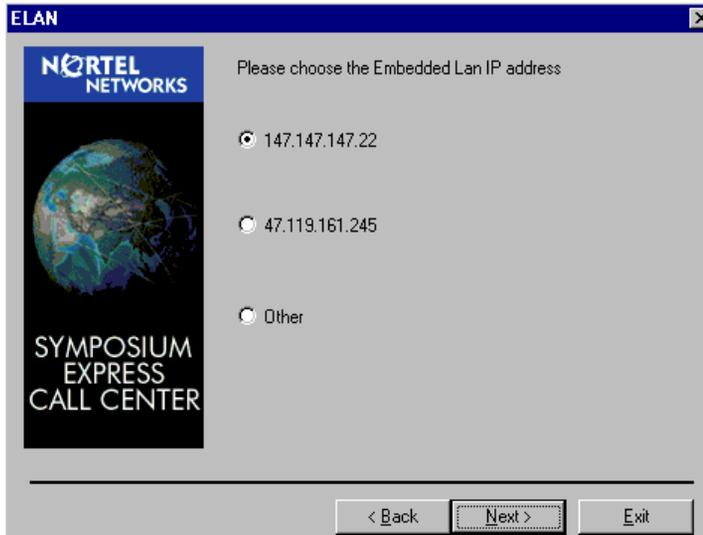
Result: The Voice Services Card Keycode dialog box appears.



The dialog box is titled "Voice Services Card Keycode" and features the Nortel Networks logo and a globe graphic. The text "SYMPOSIUM EXPRESS CALL CENTER" is displayed at the bottom left. The main instruction reads "Please enter the Keycode for the Voice Services card". Below this is a text input field labeled "Keycode". At the bottom, there are four buttons: "Help", "< Back", "Next >", and "Exit".

- 15 Enter the keycode to enable the Voice Services option, and then click Next. You must enter the keycode without spaces or hyphens.

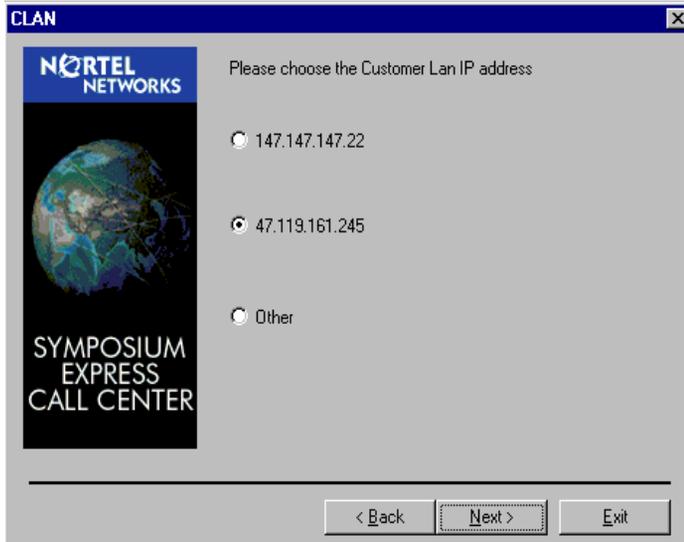
Result: The ELAN dialog box appears.



- 16 Enter the ELAN TCP/IP address for the server in one of the following ways:
- If the address appears in the dialog box, select it and click Next.

- If the ELAN TCP/IP address does not appear in the dialog box, select Other, enter the correct IP address in the dialog box that appears, and then click Next.

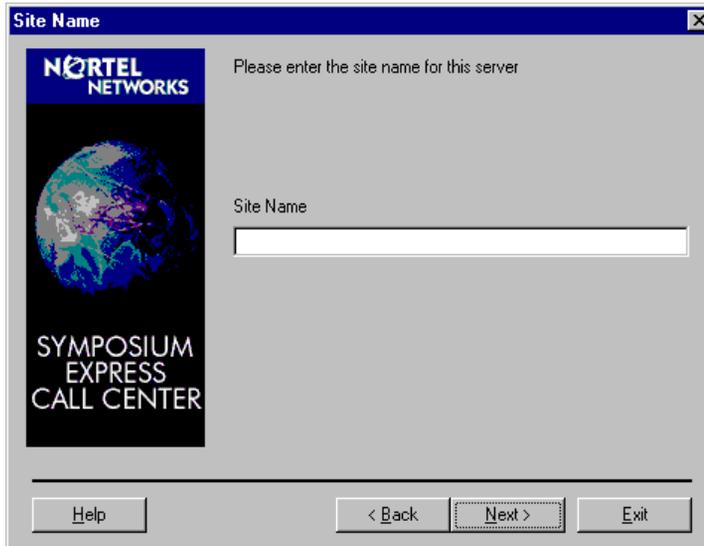
Result: The CLAN dialog box appears.



- 17 Enter the CLAN TCP/IP address for the server in one of the following ways:
- If the address appears in the dialog box, select it and click Next.

- If the CLAN TCP/IP address does not appear in the dialog box, select Other, enter the correct IP address in the dialog box that appears, and then click Next.

Result: The Site Name dialog box appears.

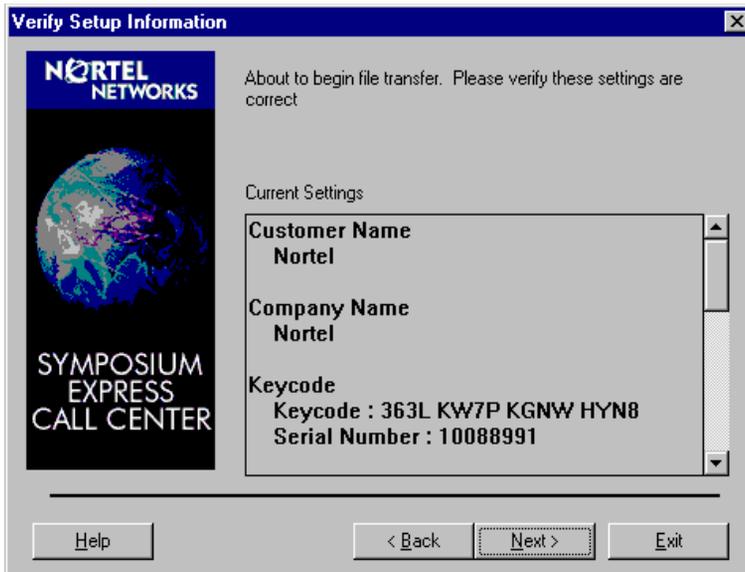


- 18 Enter a site name for the server. For more information, see “Installation and configuration checklist” on page 34.

Note: The site name must be unique and between 6–15 characters long. The only non-alphabetic characters you can use are hyphens (-) and underscores (_).

19 Click Next.

Result: The Verify Setup Information dialog box appears, similar to the following example:

**20** Examine the list of current settings. If they are incorrect, click Back to make the necessary corrections. Otherwise, click Next.

Result: The program begins copying files to the hard disk drive and a progress bar appears. Dialog boxes appear and are automatically filled in by the program. When the installation is complete, the Reboot dialog box appears.

ATTENTION

Do not touch the keyboard or mouse during the installation process, as they can cause the installation to fail.

21 What do you want to do?

IF you want to	THEN
restart the PC	<p>a. select Reboot Now, and then click Next.</p> <p>b. log on to Windows NT with the user name NGenSys and the appropriate password.</p>
upgrade the coresident client software	<p>a. click Continue and Install Client, and then click Next.</p> <p>b. continue with "Upgrading and reinstalling client software" on page 211.</p>

To use the upgrade utility to upload the Symposium Express Call Center Release 2.0 scripts to Release 3.0

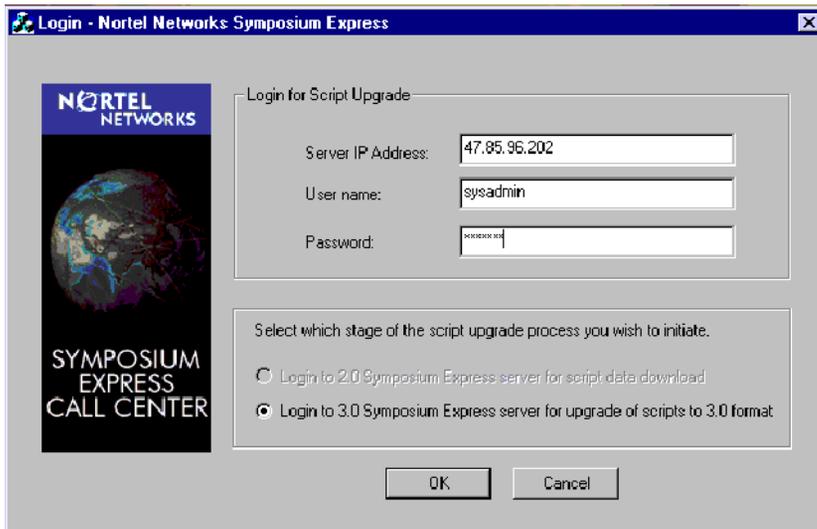
In this procedure, you replace the scripts that you had in Release 2.0 to the newly upgraded Release 3.0 system.

Before you run the utility

- you must launch a client session and log on as sysadmin to accept the end user licence agreement. When you log on for the first time, you are prompted to change the password. That new password is the one you use to run the upgrade utility.
- you must install PEP NE032105P001C. You can only do this if you have already launched your first client session (see the above point).

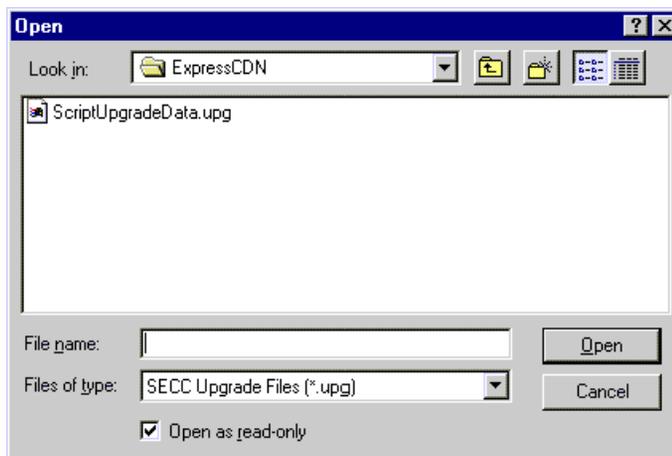
- 1 In the Release 3.0 coresident client, navigate to C:\Nortel\Client\en\bin.
- 2 Double-click nicgcsupgr.exe.

Result: The Login - Nortel Networks Symposium Express dialog box appears.



- 3 Enter the Server IP Address, the User name, and the Password, and then click OK.

Result: The Open dialog box appears.

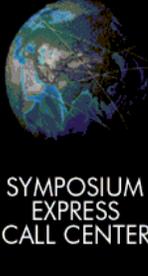


- 4 Navigate to D:\Express\CDN and open ScriptUpgradeData.upg. This is the file that you saved when you downloaded the scripts from Release 2.0. Refer to “To use the upgrade utility to download the Symposium Express Call Center Release 2.0 scripts” on page 132.

Note: If you choose an invalid file or if the file has been corrupted, then the upload is discontinued and a message box appears. The failure is logged in D:\ExpressCN\s2tos3upgrade.log.

Result: All the Release 2.0 skillsets, music\LAN routes, and treatments are added to the Release 3.0 server. The progress of each addition and any problems encountered are shown in the progress bar, and they are recorded in D:\ExpressCDN\s2tos3upgrade.log. Once all the upload is complete, a simplified Call Routing dialog box appears.

Call Routing - Incoming Call Priority - CLID

SYMPOSIUM
EXPRESS
CALL CENTER

How do you want to route the calls arriving at your call center?

Call Routing

CLID Routing	Queue your customers' phone number to skillsets (Calling Line ID)	Add phone number..
DNIS Routing	Queue your call centers' phone numbers to skillsets (DNIS)	Delete phone number..
CDN Routing	Queue the controlled call center number to skillsets (CDN)	Print call routing matrix

Call Ceiling

Please enter a global ceiling level after which calls will get a busy announcement :

Please enter a priority level for each CDN\CLID\DNIS in the matrix below. Note : Each row must have at least one high priority skillset assigned.

Incoming call priority

DN	Treatment	Ceiling	sales	supports	Skillset4	Skillset1	Skillse
12345	T1	100	1				2

Skillset Selection

<input checked="" type="checkbox"/>	Local
<input checked="" type="checkbox"/>	Network

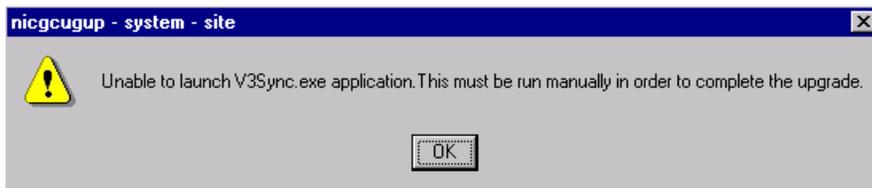
In Symposium Express Call Center Release 2.0, you can only choose priorities of 1 and 2 (1 being high priority and 2 being low priority). In Symposium Express Call Center Release 3.0, you can choose between three high priority skillsets and three low priority skillsets. In this upgrade utility, the priorities are converted as follows:

Release 2.0	Release 3.0
1	2 (high priority)
2	2 (low priority)

- If necessary, change the priorities assigned, change the treatments assigned, and add a global call ceiling and call ceilings for CLIDs, DNISs, or CDNs. For more information on adding or changing these properties, refer to the *Call Center Management Guide*. However, in this dialog box

 - networking has been disabled. You must do that through Call Routing in the Administration window.
 - you cannot add CLIDs, DNISs, or CDNs. You must do this through Call Routing in the Administration window.
 - you cannot delete CLIDs, DNISs, or CDNs. You must do this through Call Routing in the Administration window.
- Click OK.

Result: All the scripts are written to the Symposium Express Call Center Release 3.0 server. A progress bar appears that informs you of the progress. When this is complete, the V3SYNC.exe application is automatically run to synchronize all application IDs. If the server is unable to run this executable, the following dialog box appears:



- If you get this dialog box, click OK, and run V3SYNC.exe manually.

Logging information

All operations when you run the upgrade utility are logged to a file residing in S2tos3upgrade.log file that resides in the D:\EXPRESSCDN directory. If any errors occur while running the upgrade utility, check this log file for more details.

Limitations to the upgrade utility

- If the treatment already exists in Release 3.0, then the one from Release 2.0 will not be added.
- Release 2.0 RAN/Music Routes/Emergency RANs with routes 0 or 999 will fail to activate because these numbers are not allowed in Release 3.0. This is shown in both the progress bar and in the log file. If this occurs, you must modify the call treatment in Release 3.0 so that it uses a valid music/RAN route.

To modify a call treatment in Release 3.0 to use valid music/RAN route

- 1 Hit Cancel on the Call Routing dialog box part of the upgrade utility.
- 2 Go into the treatment properties through the Call Treatments icon in the Administration window. For more information, refer to the *Call Center Management Guide*.
- 3 Open any treatment that has failed to activate.
- 4 Assign a correct route between 1 and 511.
- 5 Click OK.
- 6 The treatment validates.
- 7 Rerun the upgrade utility. The newly saved treatments are not overwritten.
- 8 To ensure that all scripts are activated correctly, do the following:
 - From the Administration window, click Advanced Functions.
 - Click Call Flow Administration.
 - Double-click Scripts.
 - Ensure that the Status of each script is Active.

To ensure that the switch initializes after a server upgrade

- 1 Load Overlay 48.
- 2 Type **ENL ELAN**, and then press Enter.

If you must restore the Release 1.0 or Release 2.0 server

You can restore your Release 1.0 or 2.0 system if the conversion process is not successful. For instructions, refer to the backup and restore instructions for Release 1.0 or Release 2.0.

What's next?

Install any software PEPs. For information, see “Installing software PEPs” on page 229 Windows 98 and Windows NT. For Windows 2000/Windows XP, see “Installing PEPs on a Windows 2000/Windows XP client” on page 281.

Upgrade the client software. For information, see “Installing Windows 98 and Windows NT client software” on page 191 for Windows 98 or Windows NT, or see “Installing the client software on Windows 2000 or Windows XP” on page 249.

Complete the required post-installation activities. For information, see “Post-installation” on page 293.

Reinstalling server software

When to use

Use this procedure

- to add additional features with a new keycode for the same server version
- to reinstall the same server software version (for example, when the Symposium Express Call Center application is damaged)

You can only perform a reinstallation on a server that has already been installed properly. For example, if you have a working server that suddenly has problems in the application software, you can try to reinstall the application software.

Note: You cannot remove features or reduce the number of purchased agents with this procedure.

If you encounter a problem during a new installation, you must uninstall and then do the installation again.

The reinstallation does not repair data files or the database. If the hard drive or database has become corrupted or has failed, you must perform either a database backup or a full backup of the server. For more information, see “Restoring data from a partial backup” on page 427.

Before you begin

Make sure you have a current database backup

Before reinstalling software, create a database backup of the server. For more information, refer to the *Call Center Management Guide*.

Voice Services backup and restore

Voice Services is a keycode-enabled feature. To perform a reinstallation if you are using Voice Services, you must

- back up and restore the Voice Services data and configuration
- record Voice Services information

You must perform a Voice Services database backup of your current system, and restore this data at the end of the reinstallation procedure. You can perform a Voice Services database backup by logging on to the server, and running the Voice Services Database Backup-Restore utility. For more information, see “Voice Services backup” on page 410, and “To restore the Voice Services database” on page 432.

Note: If you do not back up and restore Voice Services, all Voice Services information and configurations will be lost in the reinstallation procedure.

You must also record information from the Voice Services configuration on the original server, so that you can add it during the reinstallation procedure or through the Voice Services configuration utility after the reinstallation procedure is complete.

To record Voice Services information

Record the following information from the Voice Services configuration utility:

- the Voice Services card name exactly as configured in the database
- keycode number
- TAPI IP address (if appropriate)
- TAPI port (if appropriate)
- default DN information

Record the following information from SMI → Advanced → Switch Administration → IVR ACD → DNs:

- the Voice Services card ports (TNs)
- IVR ACD Queue information

Shut down SMONW

Ensure SMONW is not already running on the server. If it is running, shut down SMONW.

To reinstall server software

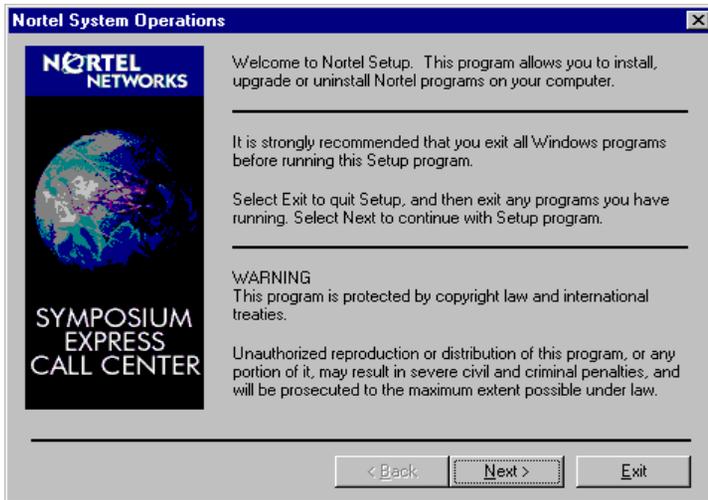
ATTENTION

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

- 1 If you are not logged on, log on to Windows NT with the username **NGenSys** and the appropriate password.
Note: If you do not log on using the NGenSys password, the install program in the following procedure prompts you to log on again using NGenSys.
- 2 Insert the Symposium Express Call Center Release 3.0 Server Application CD into the CD-ROM drive.
- 3 Exit all applications, including screen savers, and close all windows.
- 4 From the Windows Start menu, choose Run.
- 5 Click Browse, select Setup.exe from the root directory on the CD, and then click Open.

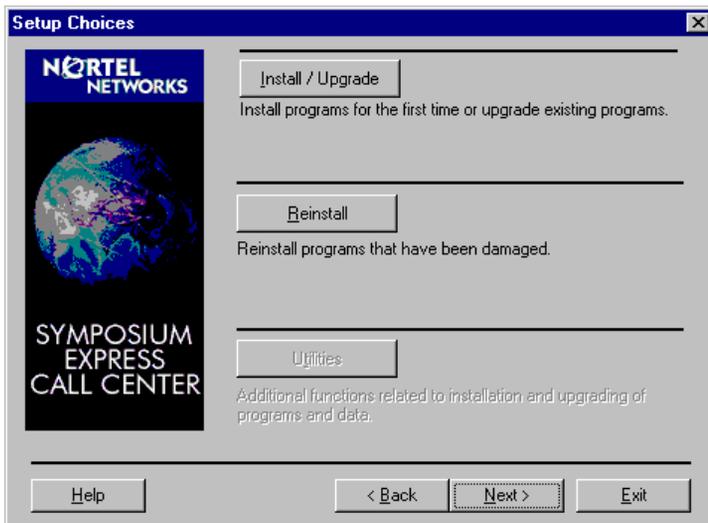
- 6 Click OK to run.

Result: The Nortel System Operations welcome dialog box appears.



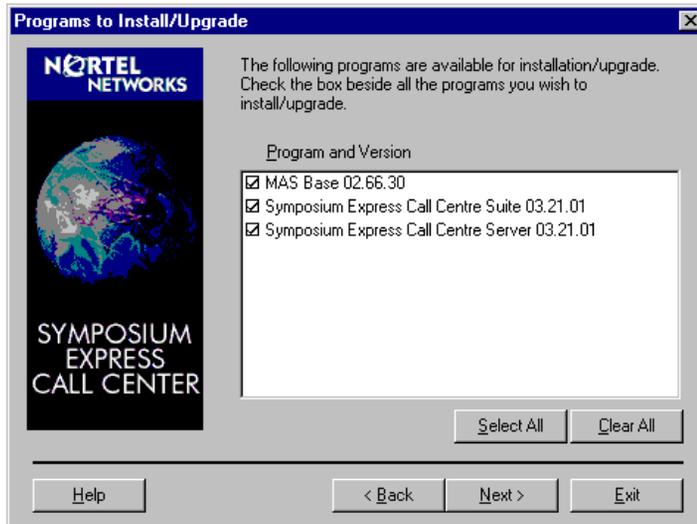
- 7 Click Next.

Result: The Setup Choices dialog box appears.



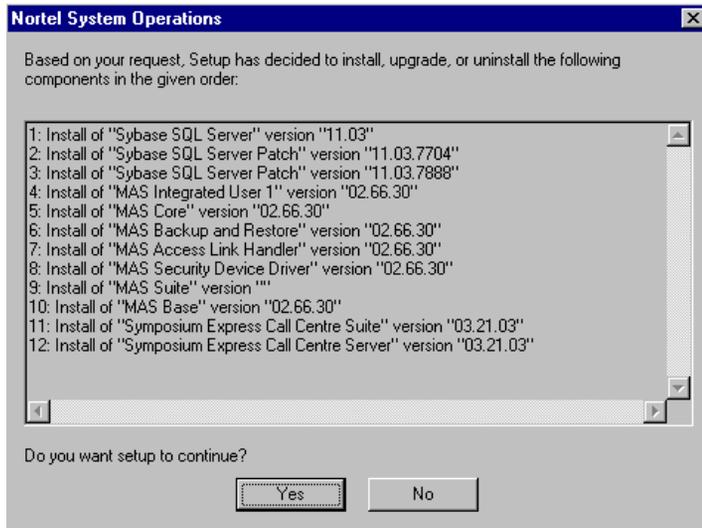
8 Click Reinstall.

Result: Setup examines the system, and the Programs to Install/Upgrade dialog box appears.



- 9 Click Select All, and then click Next.

Result: The Nortel System Operations dialog box appears and lists all components in the order in which they will be reinstalled.



- 10 Click Yes.

Note: If a warning message appears because a text printer is not found, click OK to bypass the warning. You can set up printer drivers later. For more information, see "Setting the default printer" on page 302.

- You may get the following message box:

Setup has found out that this drive "D:\\" has less than 64 Mbytes of free space. Do you still want to continue?"

ATTENTION

Nortel Networks recommends that you have 64 Mbytes of free space. You can click Yes to continue, but you do so at your own risk.

Result: Setup copies files to the server, and then the User Information dialog box appears. The boxes are automatically filled in based on your prior installation.

User Information

NORTEL NETWORKS

SYMPOSIUM EXPRESS CALL CENTER

Please enter your customer information below.

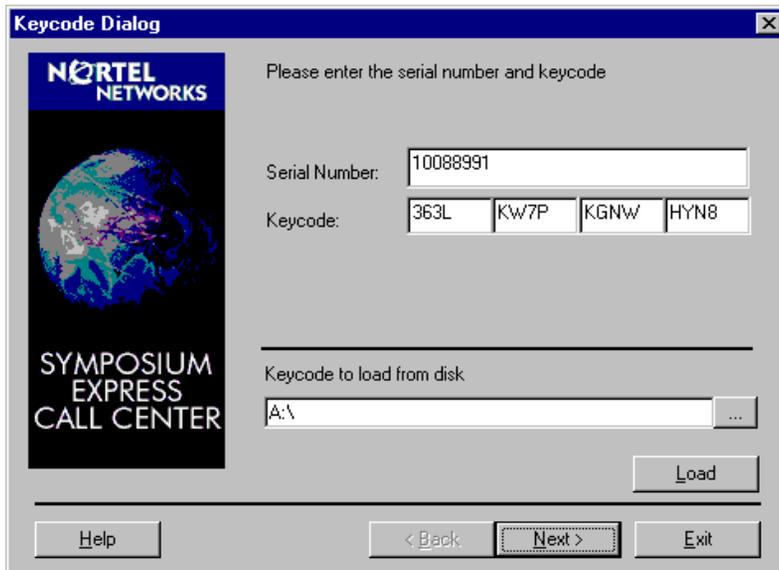
Customer Name:

Company Name:

Help < Back Next > Exit

11 Click Next.

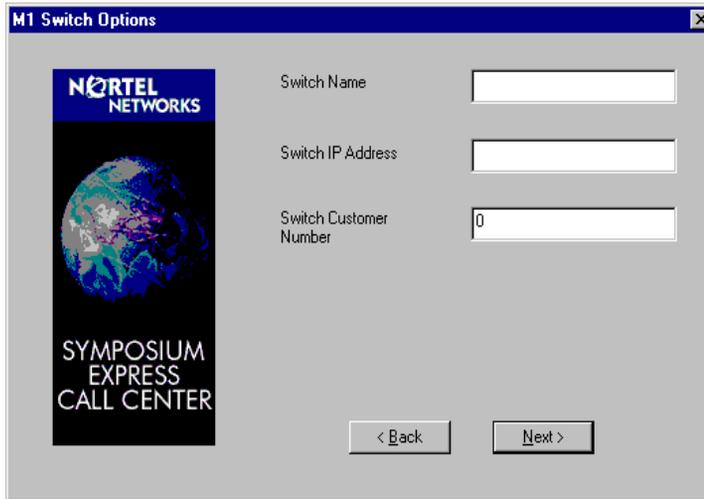
Result: The Keycode Dialog dialog box appears. The serial number and keycode are automatically entered based on your prior installation.

**12** Click Next.

Result: The Verify Keycode Information window appears.

- 13 Check that all keycode information is correct. If it is not correct, then click back to change it. Otherwise, click Next.

Result: The Switch Options dialog box appears. The information is already filled in based on your prior installation.

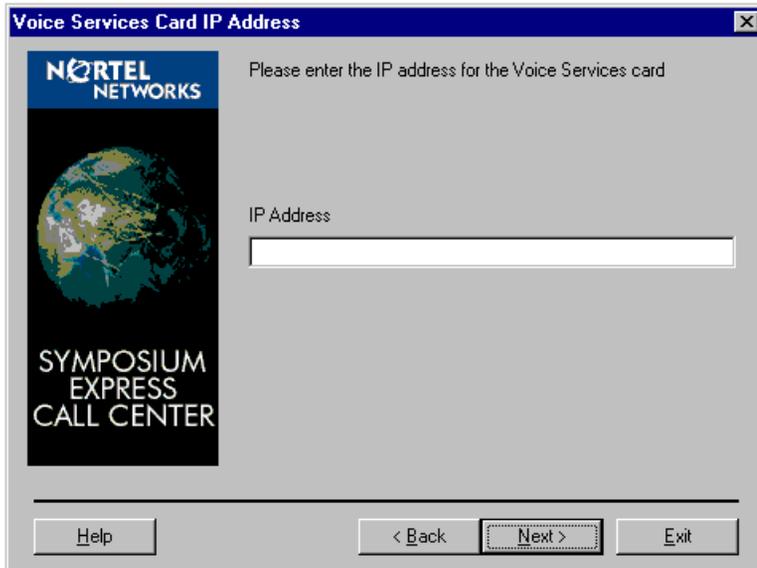


The image shows a dialog box titled "M1 Switch Options". On the left side, there is a vertical banner with the Nortel Networks logo at the top, a globe in the middle, and the text "SYMPOSIUM EXPRESS CALL CENTER" at the bottom. On the right side, there are three input fields: "Switch Name" (empty), "Switch IP Address" (empty), and "Switch Customer Number" (containing the number "0"). At the bottom of the dialog box, there are two buttons: "< Back" and "Next >".

- 14 Click Next.

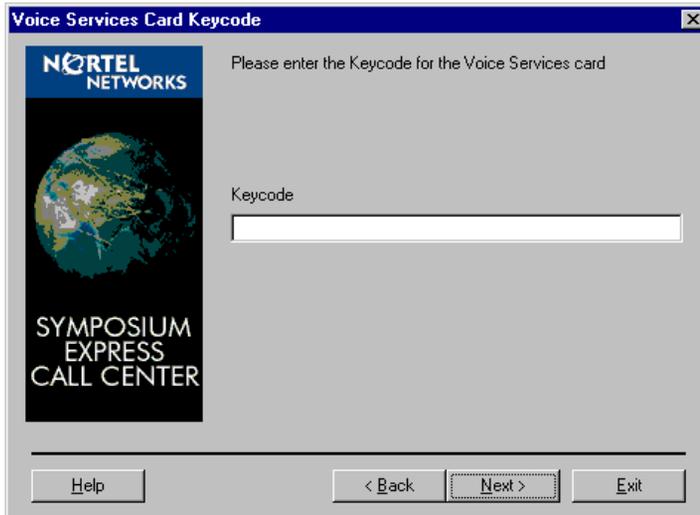
- 15 The following screens appear only if you have purchased the Voice Services option. If you did not purchase this option, skip to step 26.

Result: The Voice Services Card IP Address dialog box appears. The information is automatically entered.

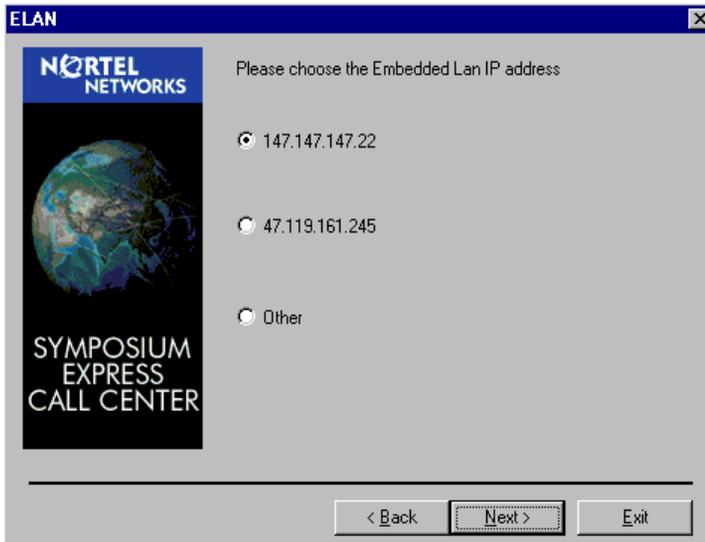


16 Click Next.

Result: The Voice Services Card Keycode dialog box appears. The information is automatically entered.

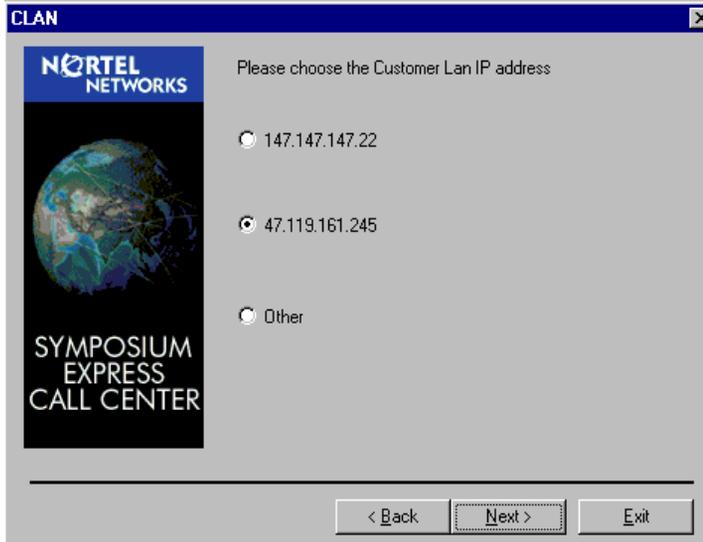
**17** Click Next

Result: The ELAN dialog box appears.



- 18 Enter the ELAN TCP/IP address for the server in one of the following ways:
- If the address appears in the dialog box, select it and click Next.
 - If the ELAN TCP/IP address does not appear in the dialog box, select Other, enter the correct IP address in the dialog box that appears, and then click Next.

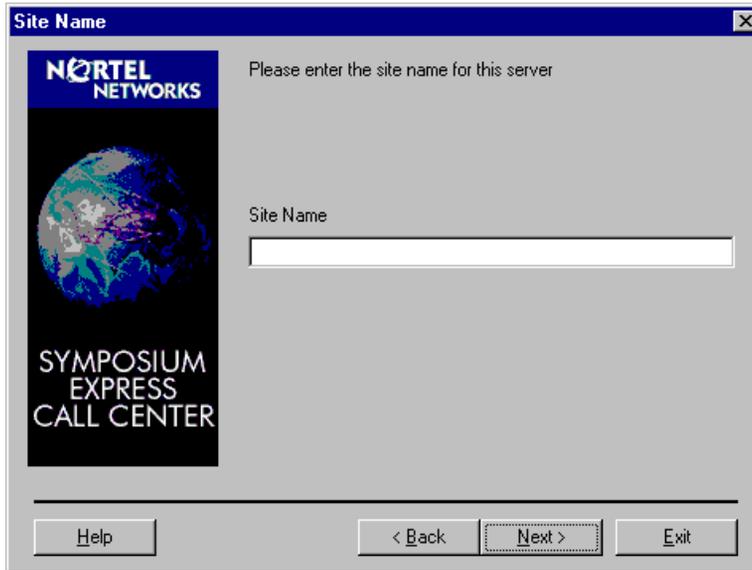
Result: The CLAN IP Address dialog box appears.



- 19 Enter the CLAN TCP/IP address for the server in one of the following ways:
- If the address appears in the dialog box, select it and click Next.

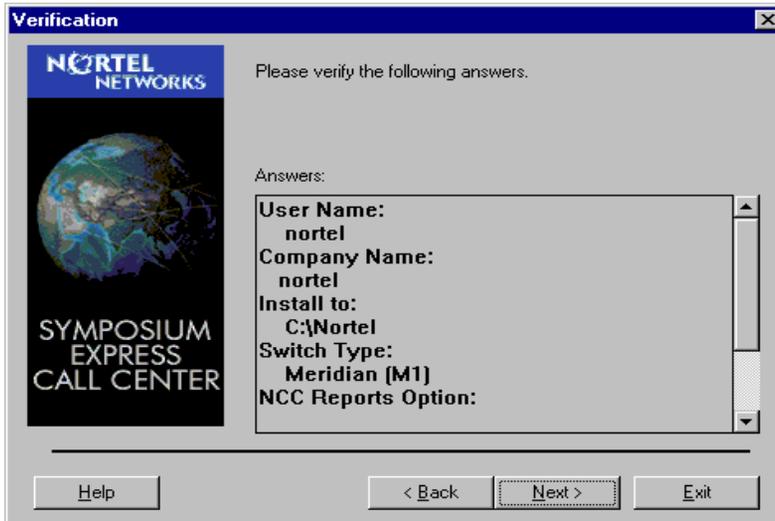
- If the CLAN TCP/IP address does not appear in the dialog box, enter the correct IP address, and then click Next.

Result: The Site Name dialog box appears. The information is entered automatically.



- 20 Click Next.

Result: The Verification dialog box appears, similar to the following example:



- 21 Examine the list of current settings. If they are incorrect, click Back to make the necessary corrections. Otherwise, click Next.
- 22 Click Next.

Result: The program begins copying files to the hard disk drive and a progress bar appears. Dialog boxes appear and are automatically filled in by the program. When the installation is complete, the Reboot dialog box appears.

ATTENTION

Do not touch the keyboard or mouse during the installation process, as they can cause the installation to fail.

23 What do you want to do?

IF you want to	THEN
restart the PC	select Reboot Now, and then click Next.
reinstall the coresident client software	<p>a. click Continue and Install Client, and then click Next.</p> <p>b. continue with “Upgrading client software” on page 257.</p>

What’s next?

Install any software PEPs. For information, see “Installing software PEPs” on page 229 for Windows 98 and Windows NT, or see “Installing PEPs on a Windows 2000/Windows XP client” on page 281.

If you are using Voice Services, you must restore the Voice Services database. This will ensure that the configurations that existed prior to the reinstallation procedure are restored. See “To restore the Voice Services database” on page 432.

You must also run the Voice Services configuration utility and update any data that you recorded prior to the reinstallation. For more information, see “Running the Voice Services configuration utility” on page 361.

Reinstall the client software. For information, see “Upgrading to a newer version of Release 3.0” on page 213, or see “Installing the client software on Windows 2000 or Windows XP” on page 249.

Complete the required post-installation activities. For information, see “Post-installation” on page 293.

Section E: Migrating Symposium Express Call Center to a new server platform

In this section

Overview	170
Migrating to a new server platform	171

Overview

Introduction

At some point, you may want to do the following tasks to migrate the server to a new hardware platform. This section describes the procedures.

Migrating to a new server platform

Introduction

If you are installing the server software on a new hardware platform, you must perform a database migration. This ensures that all the configuration information for your call center is copied onto the new server platform.

Note: Perform a database migration only if you are reinstalling or upgrading Symposium Express Call Center on a new hardware platform.

Checklist for performing a database migration

The following table summarizes the steps involved in performing a database migration. You must complete all of these steps:

Step	✓
Prepare the materials for migration. See "Preparing for migration" on page 172.	
Verify system settings on the original server PC. See page 172.	
Do a Voice Services backup. See "Migrating Voice Services" on page 175.	
Record the customer and company names. See "To determine the customer and company names" on page 174.	
Record the PEP level applied on the original server. See "To check the PEP level applied" on page 177.	
Ensure that Symposium Express Call Center supports the new server. See "Customer-supplied equipment and data checklist" on page 27.	
Configure Windows NT on the new server PC. See "What you need" on page 63 and also see page 178.	
Install RAS on the new server PC. See page 179.	

Step	✓
Install the Symposium Express Call Center server software on the new server PC. See page 179.	
Shut down any services running on the original server PC. See page 179.	
Preserve the NBSYSTEMRECORD on the original server PC. See page 180.	
Perform a database restore on the new server PC. See page 181.	
Restore the NBSYSTEMRECORD on the new server PC. See page 181.	
Disconnect the original server PC from the ELAN and CLAN. See page 182.	
Connect the new server PC to the ELAN and CLAN. See page 182.	
Perform a sanity test on the new server PC. See page 182.	
If you want to make the server coresident, install the client software. See "Installing the client software on Windows 98 or Windows NT" on page 194 and "Installing the client software on Windows 2000 or Windows XP" on page 249.	

Preparing for migration

You must have the following materials available before starting the migration process:

- blank tapes or data cartridges
- Symposium Express Call Center server software
- the latest available PEP
- a tape drive and associated driver software. The tape drive installed on the new server must be compatible with the tape drive on the original server running the Symposium Express Call Center server.

Tape drive and associated drive software

If the new server is equipped with a tape drive that is incompatible with that of the original server, remove the new server's tape drive and install a compatible tape drive and drive software.

Notes:

- The tape drive replacement is temporary and required for the migration procedure only. Save the new server's tape drive and its driver software disks for reinstallation into the new server.
- If you are borrowing the tape drive from the original server, replace the tape drive on the new server after the original server database has been backed up.

You may also need adapters to connect the tape drives. For information on replacing a tape drive, refer to the maintenance guide for your hardware platform.

Verify systems settings on the original server

Record the following information from the original Symposium Express Call Center server PC:

- computer name
- site name
- CLAN and ELAN TCP/IP addresses
- gateway, and subnet mask of both the CLAN and ELAN adapter cards

To determine the computer name

- 1 From the Start menu, choose Settings → Control Panel → Network.
- 2 Select the Identification tab.
Result: The Computer name appears.
- 3 Record the computer name.

To determine the site name, and ELAN and CLAN IP address

- 1 From the Start menu, choose Programs → Nortel Networks → Symposium Express Call Center → SysOps Utilities → Configuration.
- 2 Record the information displayed in the Configuration dialog box.

To determine the gateway and subnet mask of the ELAN and CLAN network interface cards

- 1 From the Start menu, choose Settings → Control Panel.
Result: The Control Panel appears.
- 2 Double-click the Network icon.
- 3 Select Installed Network S/W and TCP/IP Protocol, and then click properties.
- 4 Record the information for each adapter card.

To determine the switch name and type, IP address, and the customer number

- 1 From the Start menu, choose Programs → Nortel Networks → Symposium Express Call Center → SysOps Utilities → Feature report.
- 2 Click the Switch tab and record the information displayed on the property page.

To determine the serial number of the switch name and any keycoded options

- 1 From the Start menu, choose Programs → Nortel Networks → Symposium Express Call Center → SysOps Utilities → Feature report.
- 2 Click the Features tab and record the information displayed on the property page (especially the keycode).

To determine the customer and company names

- 1 From the Start menu, choose Programs → Nortel Networks → Symposium Express Call Center → SysOps Utilities → Feature report.
- 2 Click the System tab and record the customer and company names displayed.

Migrating Voice Services

You can migrate Voice Services from the original server to the new server. This involves the following procedures:

- Record information from the Voice Services configuration on the original server.
- Back up Voice Services on the original server.
- Get a copy of the current import file from LD 11.
- Shut down the original Voice Services service on the server.
- Install Voice Services on the new server.
- Restore the backup information to the new server.

To record the information

Record the following information from the Voice Services configuration utility:

- the Voice Services card name exactly as configured in the database
- keycode number
- TAPI IP address (if appropriate)
- TAPI port (if appropriate)
- default DN information

Record the following information from the SMI → Advanced → Switch Administration → IVR ACD → DNs:

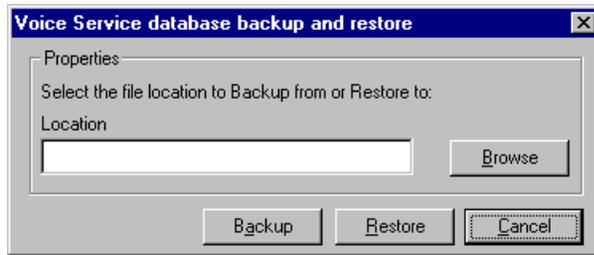
- the Voice Services card ports (TNs)
- IVR ACD Queue information

To back up the Voice Services database

Use the Backup and Restore Utility to back up the Voice Services database.

- 1 Log on to the server as **NGenSys**.
- 2 From the Windows Start menu, choose Programs → Symposium Express Call Center → Voice Services → Database backup-restore.

Result: The Voice Service database backup and restore dialog box appears.



- 3 Insert the preformatted disk that you will use to back up the database. The backup is stored as a .csv file. It is highly unlikely that it will be too large to fit on a single disk.
- 4 Click Browse to select the location of the disk, and then click Backup.
- 5 Label the disk with the following information:
 - date
 - version
 - customer name
 - server name
- 6 Repeat steps 2 to 5 to make another copy of the backup on a separate disk.



CAUTION

Risk of data loss

Always back up the information on two separate disks. Never rely on a single disk for the backup. For disaster recovery, Nortel Networks recommends that you retain two Voice Services database backup disks in a secure off-site location.

- 7 Repeat steps 2 to 5, but this time back up the database to the server's hard disk. This enables you to do a quick restoration of the Voice Services database. Ensure that you use an appropriate time stamping method when saving to the hard drive so that there is a record of when the backup was performed.

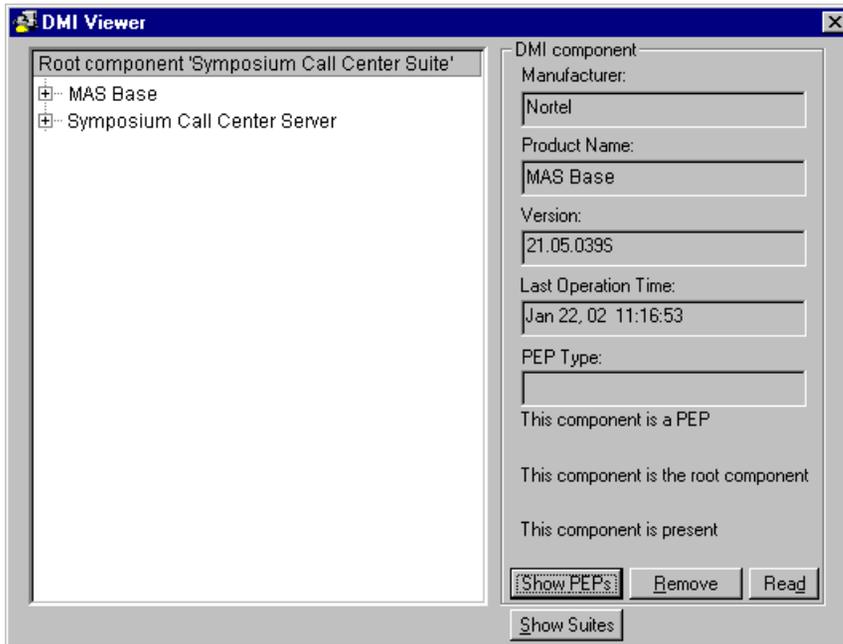
To check the PEP level applied

You must install the new server with the same PEP level as the original server.

To check the PEP levels on the original server

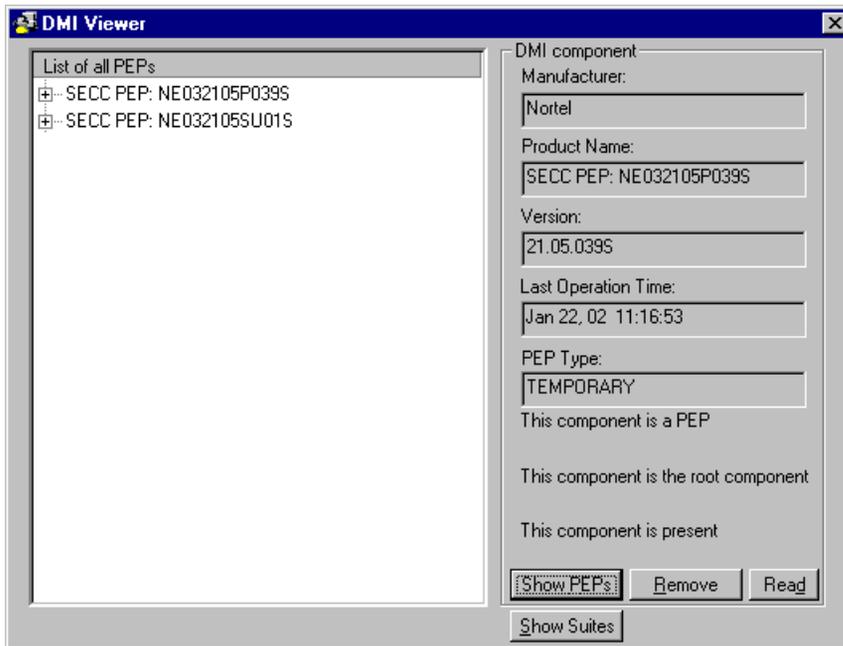
- 1 On the original server, from the Windows Start menu, choose Programs → Symposium Express Call Center → DMI View.

Result: The DMI Viewer appears.



- 2 Click Show PEPS.

Result: The List of all PEPs appears.



- 3 Click each displayed PEP on the list of PEPs. For each PEP, record the PEP Product Name, PEP Version, and PEP Type listed in the DMI Component area.

Configure Windows NT on the new server PC

Install Windows NT Server 4.0 (as a stand-alone server) onto a new server PC. Use the same computer name and TCP/IP properties you recorded from the original server PC. Do not connect the new server PC to the ELAN or CLAN at this time.

For more information on how to configure Windows NT, see “Configuring Windows NT” on page 64. Also, see the related procedures:

- “Installing SNMP, RAS, and TCP/IP Printing services” on page 67

- “Installing WinNT 4.0 Service Pack 6 or higher” on page 71
- “Configuring the Remote Access Service modem” on page 74
- “Removing daylight saving time” on page 77
- “Verifying system settings” on page 78
- “Installing pcAnywhere 9.2” on page 84
- “Configuring pcAnywhere” on page 86

Install RAS on the new server PC

For information on how to install RAS on the new Symposium Express Call Center server PC, see “Configuring the Remote Access Service modem” on page 74.

Install the Symposium Express Call Center server software on the new server PC

For information on how to install the Symposium Express Call Center server software, see “Installing the server software” on page 102, and the related procedures:

- “To install the MAS server software” on page 107
- “Installing the server software” on page 102

During installation, you are prompted to enter the information you recorded from the original server PC. Ensure that you enter this information exactly as it appeared on the original server PC. Once the installation is complete, you do not need to reconfigure resources such as agents or supervisors. These resources are automatically configured once you restore the Symposium Express Call Center database.

To shut down any services running on the original server PC

- 1 From the Start menu, choose Programs → Nortel Networks → Symposium Express Call Center → SysOps Utilities → Shutdown.
- 2 When the message `Your system has been shut down` appears, click OK.

- 3 Check the log file (C:\Sysops\insccsd.log) to ensure that all services were shut down successfully.

To preserve the NBSystemRecord on the original server PC

- 1 From the Start menu, choose Programs → MS-DOS Prompt.
- 2 At the prompt, type **sybping**, and then press Enter.
- 3 Record the name of the SQL Server Service. It appears in the format Computername_SQLSRV.
- 4 Choose Exit to close the sybping window.
- 5 Insert a blank disk into drive A.
- 6 Navigate to the D:\Nortel\ICCM\bin directory.
- 7 At the prompt, type **perl bcpio.pl out A: <servername>_SQLSRV**, (where <servername> is the name assigned to the Symposium Express Call Center server PC).

Example: Where the server name is PCLDY05A, type
perl bcpio.pl out A: PCLDY05A_SQLSRV

8 Press Enter.

Note: This command is case sensitive.

9 Remove the disk from drive A. Use the disk to restore the NBSystemRecord on the new server PC.

10 Label the disk.

You may need to switch a tape drive over to the new server at this stage, but this will not be possible until the call center closes. Any necessary SCSI drivers and tape drivers can be sourced by the distributor, or it may be possible to download them from the Internet.

Perform a database restore on the new server PC

For information on how to restore the database on the new Symposium Express Call Center server PC, see “Restoring data from a partial backup” on page 427.

To restore the NBSystemRecord on the new server PC

If you have started services on the new server PC, you must shut them down before restoring the NBSystemRecord on the new server PC.

- 1** Shut down any services running on the new server PC. See “To shut down any services running on the original server PC” on page 179.
- 2** From the Start menu, choose Programs → MS-DOS Prompt.
- 3** At the prompt, type **sybping**, and then press Enter.
- 4** Record the name of the SQL Server Service. It appears in the format Computername_SQLSRV.
- 5** Insert the disk you used to preserve the NBSystemRecord from the original server PC into drive A.
- 6** Navigate to the D:\Nortel\ICCM\bin directory.
- 7** At the prompt, type **perl bcpio.pl in A: <servername>** (where <servername> is the name assigned to the Symposium Express Call Center server PC).

Example: Where the server name is PCLDY05A, type
perl bcpio.pl in A: PCLDY05A_SQLSRV

8 Press Enter.

Note: This command is case sensitive.

9 Remove the disk from drive A.

To disconnect the original server PC from the ELAN and CLAN

- 1 Shut down Windows NT and turn the power supply off.
- 2 Disconnect the original Symposium Express Call Center server PC from the ELAN and CLAN.

To connect the new server PC to the ELAN and CLAN

- 1 Connect the new Symposium Express Call Center server PC to the ELAN and CLAN.
- 2 Connect the switch to the ELAN.

To perform a sanity test on the new server PC

For information on how to perform a sanity test, see “To check the server PC configuration” on page 80.

Install PEPs

For information on how to install PEPs, see

- “Installing software PEPs” on page 229 for Windows 98 and Windows NT
- “Installing PEPs on a Windows 2000/Windows XP client” on page 281

To install the client software

If you want to make the server coresident, install the client software now. For information, see “Installing the client software on Windows 98 or Windows NT” on page 194, and “Installing the client software on Windows 2000 or Windows XP” on page 249.

To install Voice Services

When the installation is complete, including PEPs installation, restore the Voice Services database from the backup tape. For information, see “Performing Voice Services restores” on page 429. The Voice Services restore procedure is effectively a new installation, except that you restore the data from the backup tape, and import the Voice Services configuration information you recorded at the start of the Voice Services migration procedure. For more information, see the *Symposium Express Voice Services Card Installation Guide*.

To import Voice Services card information

For information on importing Voice Services card information, see “Importing Voice Services card information” on page 364.

Post-installation procedures

For information on post-installation tasks, see

- “To update the emergency repair disk” on page 295
- “To add an SMI system” on page 296
- “To connect to the server for the first time” on page 300
- “To set the default printer” on page 302
- “To log off the server computer” on page 303

Section F: Uninstalling the server application software

Overview	186
Uninstalling server software	187

Overview

Introduction

Follow this procedure to completely uninstall the server application software.

Note: You must remove the client software before you uninstall the server software.

Checklist for uninstalling server software

Step	
Obtain the current password for the NGenSys account.	
Uninstall the server software. See page 187.	
Uninstall the Desktop Management Interface (DMI). See page 188.	

Before you begin

Ensure that you have shut down the SMONW and NETSMONW services before uninstalling the server software. Also ensure that the VPSRPC Server service and the VS Service status window are shut down before uninstalling the server software.

Uninstalling server software

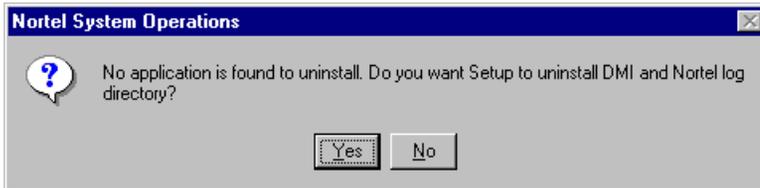
To uninstall server software

- 1 Log on to Windows NT as **NGenSys**.
- 2 From the Windows Start menu, choose Programs → Symposium Express Call Center → Uninstall.
Result: Setup examines the system, and the Uninstall Programs dialog box appears. This dialog box lists all programs available to be uninstalled.
Note: The list contains all Performance Enhancement Packages (PEPs) installed on the server. Ensure that all PEPs are selected for uninstallation.
- 3 Click Select All, and then click Next.
Result: The Nortel System Operations dialog box appears and lists all of the components in the order in which they will be uninstalled.
- 4 Click Yes.
Result: The Nortel System Operations uninstall summary dialog box appears.
- 5 Click OK.
Result: A confirmation prompt appears.
- 6 Click Yes.
Result: The system prompts you to restart.
- 7 If the uninstall has completed successfully, click No (do not restart the server at this time). You can now uninstall DMI. Continue with the following procedure.
Note: If you encounter a problem during the uninstall, then do not uninstall the DMI. The DMI is not automatically uninstalled during the uninstallation process because all logs that can be used by customer technical support to troubleshoot problems are deleted when the DMI is uninstalled.

To uninstall the DMI

- 1 From the Windows Start menu, choose Programs → Symposium Express Call Center → Uninstall.

Result: The following prompt appears:



- 2 Click Yes.

Result: The Nortel System Operations uninstall summary dialog box appears.

- 3 Click OK.

Result: The setup program prompts you to restart.

- 4 Click OK to restart.

- 5 The server software is now completely uninstalled.

ATTENTION

Make sure that all the folders named Nortel and their subfolders in each of the local drives are removed. Remove them manually if they still exist.

To uninstall Voice Services PEPs

Before removing any Voice Services PEPs, you must back up the Voice Services database. For more information, see “Voice Services backup” on page 410.

Note: Make sure you have the latest PEPs. Contact your Nortel Networks customer representative for more information.

To uninstall server PEPs, see “Uninstalling server software” on page 187.

Chapter 4

Client software on Windows 98 and Windows NT

In this chapter

Overview	190
Section A: Installing Windows 98 and Windows NT client software	191
Section B: Upgrading and reinstalling client software	211
Section C: Installing software PEPs	227
Section D: Uninstalling client software	231

Overview

Introduction

This chapter describes the procedures for managing Symposium Express Call Center client software on a PC running the Windows 98 or Windows NT operating system, including

- installing the client software
- upgrading and reinstalling the client software
- installing software PEPs
- uninstalling the client software

Section A: Installing Windows 98 and Windows NT client software

In this section

Overview	192
Installing the client software on Windows 98 or Windows NT	194

Overview

Introduction

Follow the procedures in this section to install the Symposium Express Call Center client software.

Timing

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

Before you begin

- Ensure that the PC is running one of Windows 98, Workstation 4.0 with Service Pack 4 or higher, or Windows 2000. If you are installing the coresident client, the PC must be running Windows NT 4.0 Server with Service Pack 6 or higher.
To check the Windows version, right-click the My Computer icon and choose Properties. On the General property page, view the current installed version of Windows.
- If the client will be accessing the server by modem, TCP/IP, or PPP connection, install Dial-Up Networking. Refer to the appropriate customer-supplied Windows documentation.
- Ensure that the client PC is running Microsoft TCP/IP. Symposium Express Call Center operates with Microsoft TCP/IP only.
- If a Software Development Kit (SDK) is installed on the client PC, uninstall it following the instructions in “Uninstalling the Software Development Kit” on page 196.
- If Sybase Open Client is installed on the client PC, you must uninstall it before installing the client software. Refer to the appropriate Sybase documentation.

Things to remember

Follow the steps in the installation checklist

See “Checklist for installing Symposium Express Call Center client software” on page 195.

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 the Desktop Management Interface

If you are prompted to install the Desktop Management Interface (DMI), click Yes to install it. The DMI is part of the client software. If the DMI is already installed, you are not asked to install it again.

Install Acrobat Reader 3.0 with search plug-in

You need Adobe Acrobat Reader to view the online documentation. Adobe Acrobat Reader is available on the Symposium Express Call Center Release 3.0 Client Application CD in the MAS directory.

Installing the client software on Windows 98 or Windows NT

Introduction

Follow this procedure to install the Symposium Express Call Center client software on PCs with Windows 98 or Windows NT operating systems.

Notes:

- On the server PC, you must install the server software on the D partition, and the coresident client software on a different partition.
- You install the first client on the PC on which you installed the server software.

Logging on to Windows

If you install both the client and server software on the same PC, log on to Windows NT with the system administrator user name and password provided by the customer, or log on as user ID NgenSys and the appropriate password when you install the client software.

Coresident client installation differences

There are differences between the coresident client software installation and the standalone client installation. These differences are summarized in the following table:

Coresident client	Stand-alone client
You must choose a Nortel Log directory.	You do not choose a Nortel Log directory.
You must install the client on a different partition than the server.	You can install the client on any drive.

Coresident client	Stand-alone client
The Customer Information window does not appear.	The Customer Information window appears.
The LAN Connectivity (TCP/IP) window does not appear.	The LAN Connectivity (TCP/IP) window appears.
DMI and Sybase are not installed.	DMI and Sybase are installed.
ODBC is not installed.	ODBC is installed.

Any differences in windows are noted in the procedures.

Checklist for installing Symposium Express Call Center client software

The following table summarizes all of the steps involved in installing the client software. You must complete all of these steps:

Step	✓
Obtain the user ID and password that you need to log on to the client PC. On a Windows NT client PC, you need an account that has local administrative privileges.	
Review the requirements in the hardware and software checklist on page 28.	
Review the limitations on page 196.	
Uninstall the Software Development Kit (SDK) if it is installed. See page 196.	
Ensure that the temp directory has enough space. See page 197.	
Check the “Things to remember” section on page 193.	
Install PEPs if a PEP CD was provided. See page 229.	

Note: If Sybase Open Client is installed on the client PC, you must uninstall it before installing the client.

Limitations

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.

Unsupported combinations

The Symposium Express Call Center client application cannot reside on the same PC as

- earlier versions of the Symposium Express Call Center client application
- the Symposium 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 Sybase Open Client

The Symposium Express Call Center client application uses its own version of the Sybase Open Client software. It cannot be installed on a PC that already contains Sybase. (This is a Sybase limitation.) Thus, any Sybase-based applications (such as SQL Server 7) are incompatible with the Symposium Express Call Center client and cannot coexist on the same PC.

Uninstalling the Software Development Kit

Before you install client software, you must ensure that the Software Development Kit (SDK) is not installed on the client PC. SDK and Symposium Express Call Center 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 From the Windows Start menu, choose Settings → Control Panel.
- 3 Double-click Add/Remove Programs.
- 4 Scroll through the list, looking for Symposium Express Call Center Runtime. If this program appears in the list, continue with the following steps to uninstall it.
- 5 Click Add/Remove.

Result: A WARNING dialog box appears.

- 6 Click Yes.

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

- 7 Click OK.
- 8 Restart the computer.

Checking the temp directory size

Use this procedure to ensure that you have at least 500 Mbytes of free space on the hard drive containing your Windows Temp directory. (This directory is usually located on drive C.) The client software requires 500 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 From the Windows Start menu, choose Programs → Command Prompt.
- 3 At the prompt, type **dir**.
Result: The Contents of the current directory appears, along with a summary of free disk space.
- 4 Check the amount of free disk space that appears on the last line:

- If the free disk space summary shows more than 500 Mbytes, then you can proceed with installing the client software.
- If the free disk space summary shows less than 500 Mbytes of free disk space, then remove unnecessary data or programs from the PC until you have at least 100 Mbytes of free disk space.

To delete temporary files

You should delete temporary files on a regular basis. This avoids potential disk space problems caused by the accumulation of large temporary files created from generating reports and from other client activities. To delete temporary files, follow these steps.

- 1 From Windows Explorer, navigate to your system's temporary directory.
Note: The usual path to this directory is C:\Windows\Temp for Windows 98, and C:\Winnt\Temp for Windows NT.
- 2 Select and then delete all files in the temporary directory.
- 3 From Windows Explorer, navigate to the Recycle Bin and choose File → Empty Recycle Bin.

To start the client installation

ATTENTION

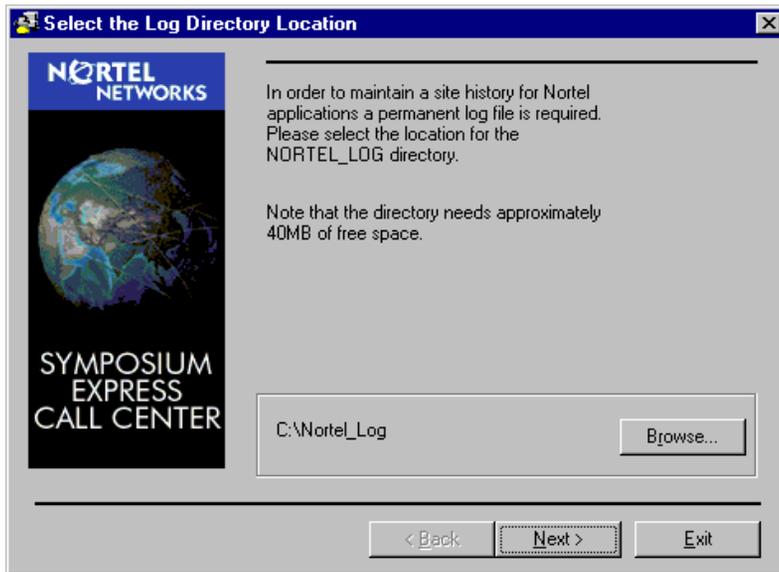
During the installation, there are points where the setup program performs automatic installation steps between wizard setup windows. Do not close any windows that appear during these steps. Wait for the next wizard setup window before you use the mouse or keyboard.

If you abort the installation, you must uninstall all components and then restart the installation.

- 1 Log on to the client PC. If you are installing a coresident client, log on with the username **NGenSys** and the appropriate password.
Note: If the client PC is running Windows NT Workstation, log on using the system administrator user ID and password. You must be logged on with administrative privileges to install, upgrade, or convert Symposium Express Call Center software.
- 2 Exit all applications, including screen savers, and close all windows.

- 3 Insert the Symposium Express Call Center software Client Application Product release 3.0 CD into the CD-ROM drive.

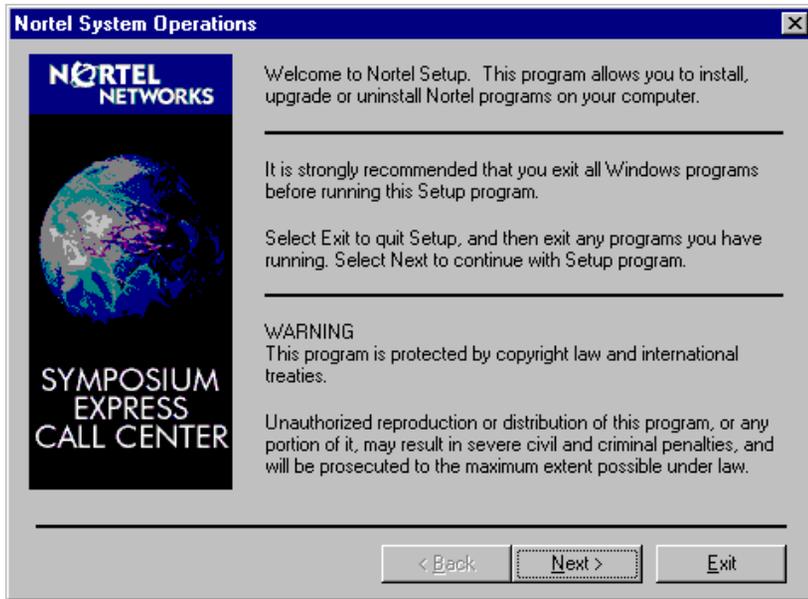
Result: The Setup program starts automatically and loads the installation wizard. The Select the Log Directory Location window appears.



- 4 To change the location, click Browse and select the desired location.

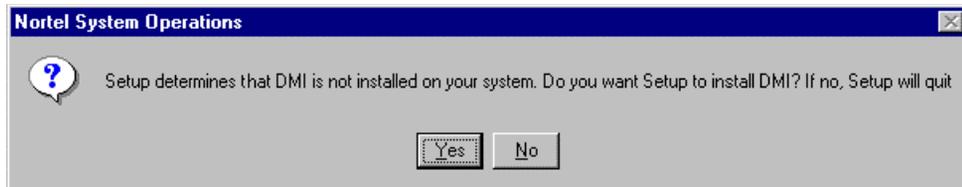
- 5 Click Next.

Result: The Welcome window appears.



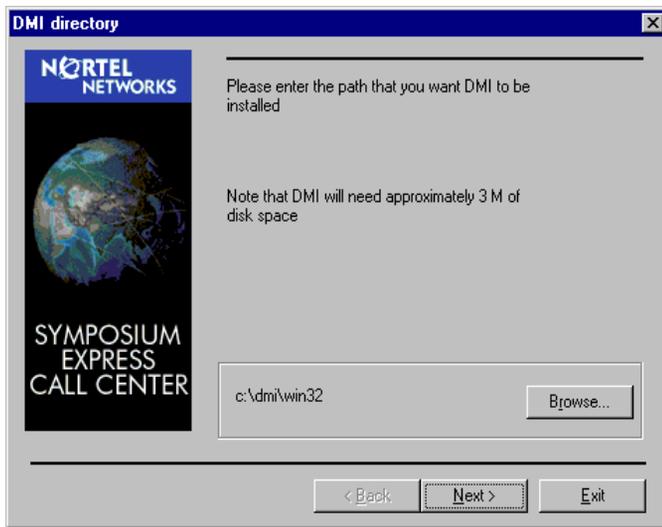
- 6 Click Next.

Result: If DMI is already installed on the system (as it is with the coresident client), skip to step 10. If DMI is not already installed on the system, the following dialog box appears:



- 7 Click Yes to install the DMI.

Result: The DMI directory window appears.



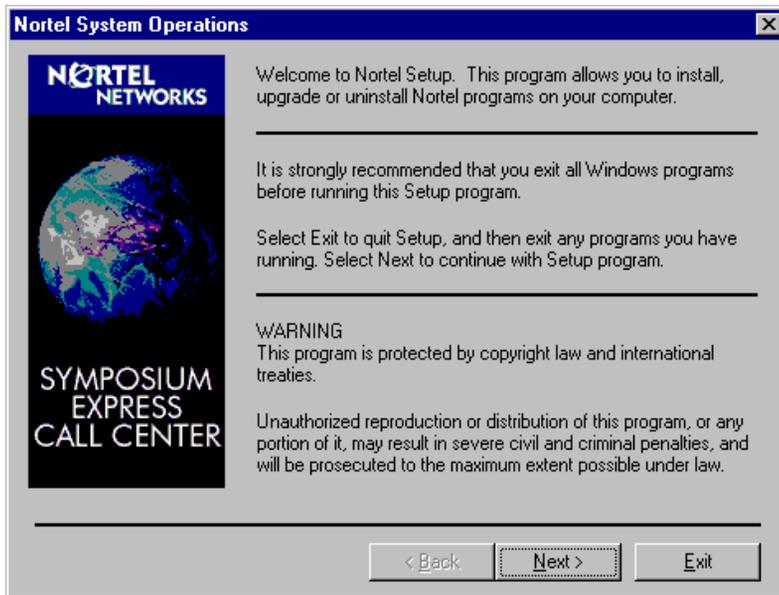
- 8 To change the location, click Browse and select the desired location.

- 9 Click Next.

Result: The DMI installs in approximately 1 minute, and then the Nortel System Operations window appears.

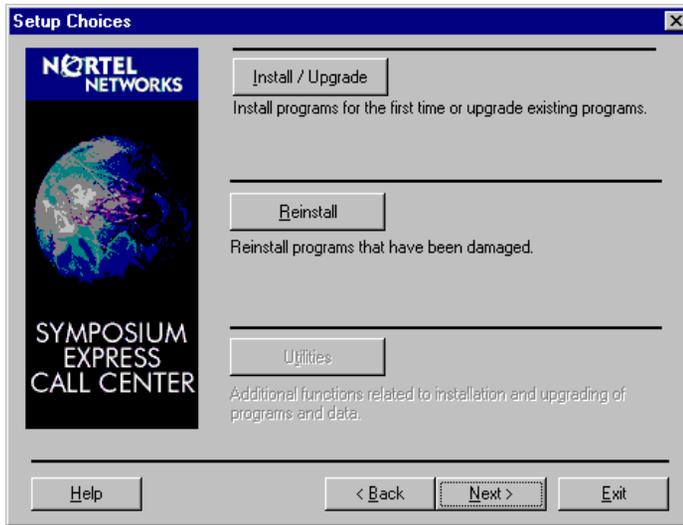
ATTENTION

Do not use the keyboard or mouse during the installation process, as they can cause the installation to fail.



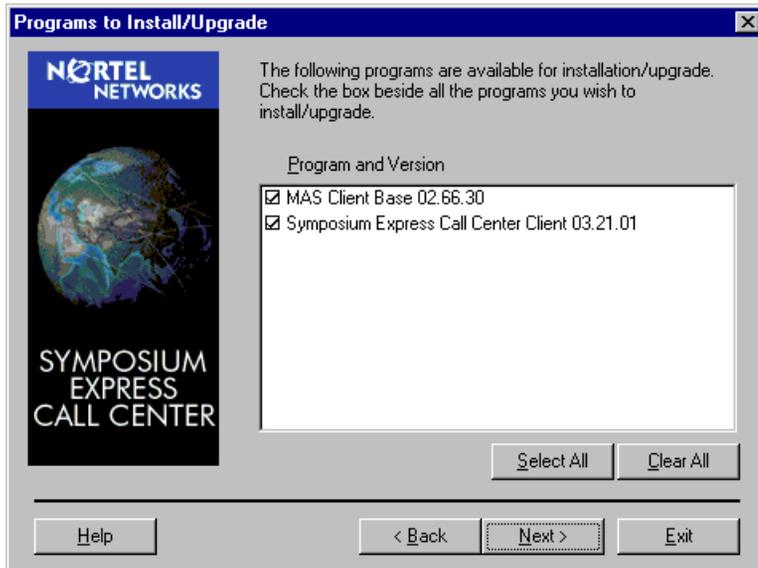
10 Click Next.

Result: The Setup Choices window appears.



11 Click Install/Upgrade.

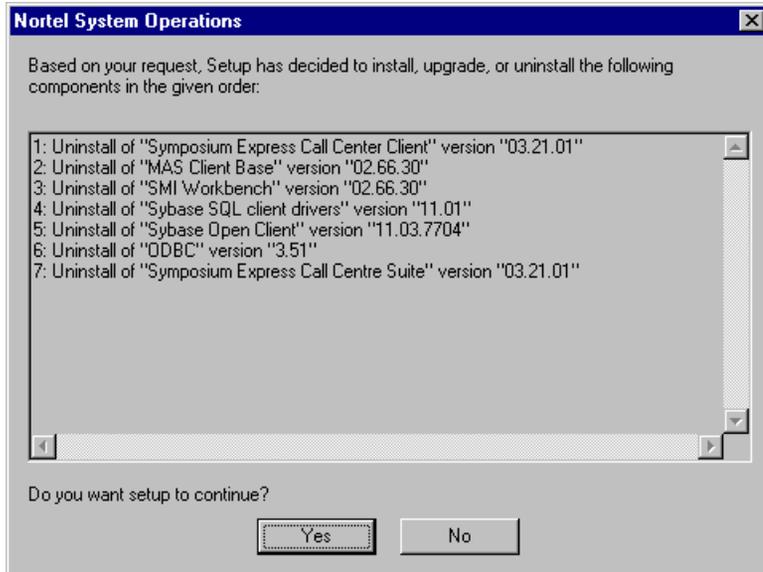
Result: Setup examines the system, and the Programs to Install/Upgrade window appears.



12 Click Select All, and then click Next.

Result: The Nortel System Operations window, similar to the following, appears and lists all of the components in the order in which they will be installed.

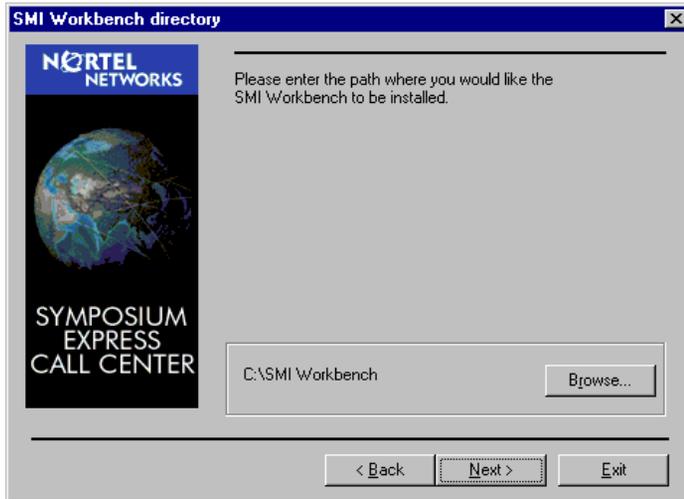
Note: The contents of this window are different for coresident and stand-alone installations.



13 Click Yes.

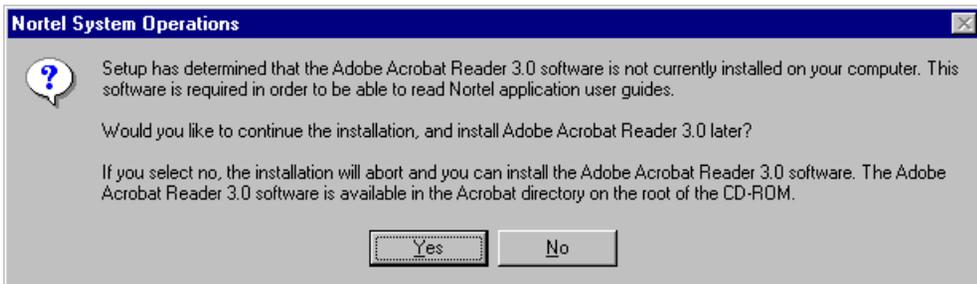
Note: If you are installing the coresident client, at this point all services are automatically shut down.

Result: The SMI Workbench directory window appears.

**14** To change the location, click Browse, select the desired location, and then click Next.

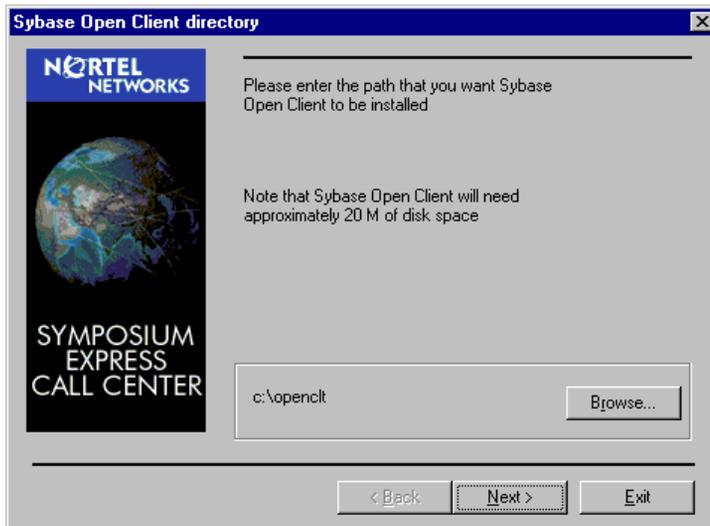
Note: For the coresident client, accept the default location.

Result: The setup program checks to see whether the required version of Adobe Acrobat reader is installed. If it is not installed, the following dialog box appears:

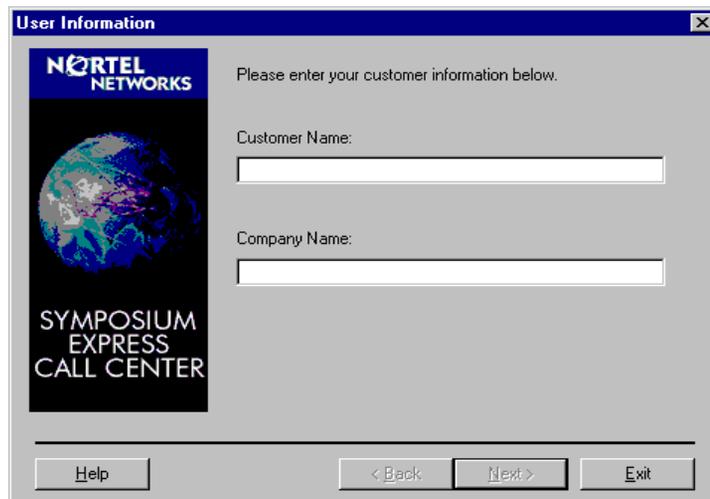


15 Click Yes.

Result: If you are installing a coresident client, skip to step 17. If you are installing a standalone client, then the Sybase Open Client directory window appears.

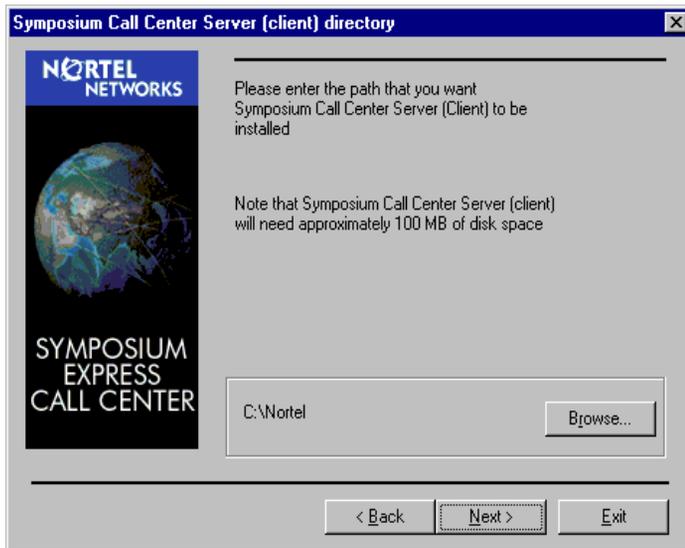
**16** To change the location, click Browse and select the desired location.

Result: The User Information window appears.



- 17 Enter the customer name and company name, and then click Next. If you are installing the coresident client, this information is filled in automatically.

Result: The Symposium Call Center Server (client) directory window appears.

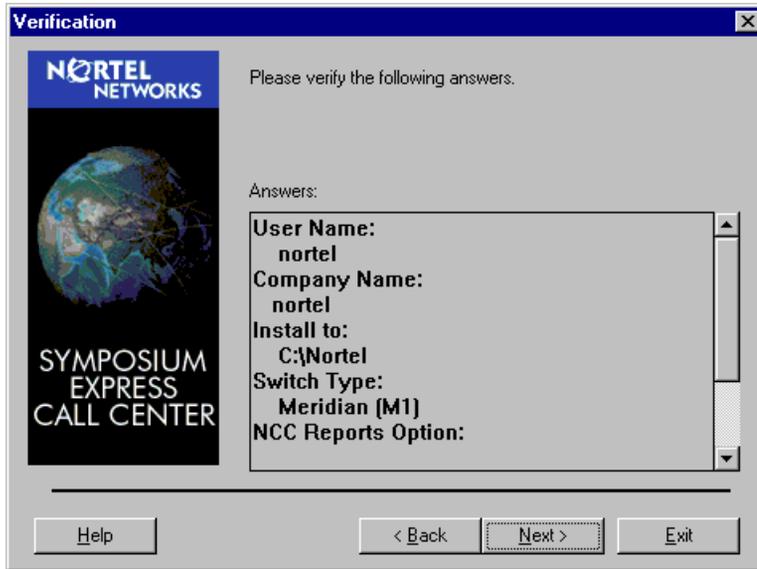


- 18 To change the location, click Browse and select the desired location.

Note: For the coresident client, accept the default location.

- 19 Click Next.

Result: The Verification window appears.



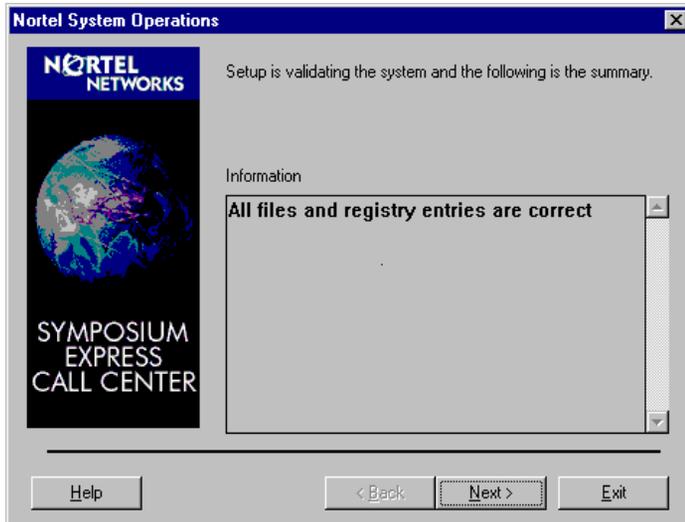
- 20 Verify that all of the options showing in the Verification dialog box are correct. If any errors appear, click Back to make the necessary corrections. Otherwise, click Next.

Result: Setup installs the listed components. This takes approximately 15 minutes.

ATTENTION

Do not use the keyboard or mouse during the installation process, as they can cause the installation to fail.

When the installation has completed, the Nortel System Operations validation summary appears.



21 Click Next.

Result: The system asks if you want to read the readme file.

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

Result: The program prompts you to restart.

23 Click Yes to restart the computer.

Result: The computer restarts, and the client installation is complete.

Section B: Upgrading and reinstalling client software

In this section

Overview	212
Upgrading to a newer version of Release 3.0	213
Reinstalling client software	224

Overview

Introduction

This section describes

- how to upgrade client software from within Symposium Express Call Center Release 3.0
- how to convert Symposium Express Call Center client software from Release 1.0 or Release 2.0 to Release 3.0. This process requires the additional step of preconversion.
- how to reinstall client software

Note: You must upgrade the client software after you upgrade your Symposium Express Call Center server from Release 2.0 to Release 3.0. You cannot connect to a Release 3.0 Symposium Express Call Center server using a Release 2.0 client.

Operating systems

The following operating systems and their corresponding versions of Symposium Express Call Center Client are supported by the export utility:

Supported client PC Windows Operating System	Symposium Express Call Center client version
Windows 98, Windows NT 4.0 Workstation	2.0
Windows 98, Windows NT 4.0 Workstation	3.0 (Windows 98, Windows NT 4.0 client)
Windows 2000 Professional, Windows XP Professional	3.0 (Windows 2000/Windows XP Client)

Upgrading to a newer version of Release 3.0

Introduction

Follow this procedure to upgrade Windows 98 or Windows NT client software to a newer version of Symposium Express Call Center Release 3.0, or to upgrade from Symposium Express Call Center Release 2.0 for Windows 98 or Windows NT clients.

To upgrade from Release 1.0 to Release 3.0, you must first upgrade to Release 2.0. Refer to the *Nortel Networks Symposium Express Call Center Planning, Installation, and Administration Guide*, Release 2.0.

To reinstall the current version of the client software or add features, see “Reinstalling client software” on page 224.

You cannot downgrade to a previous version of Symposium Express Call Center software.

Before you begin

Make a copy of all of your user-defined or user-created reports in a separate directory as a safeguard.

Things to remember

Update DLLs

During the upgrade, 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.

Uninstall PEPs

During the upgrade, Performance Enhancement Packages (PEPs) are listed as components to uninstall in the Programs to Install/Upgrade window. PEPs must be uninstalled as part of the upgrade. Ensure that all items in the window are selected so that the PEPs are uninstalled.

Acrobat Reader 3.0 with search plug-in

When you install the client software, the installation procedure instructs you to install Acrobat Reader 3.0 from the client CD. The Acrobat Reader 3.0 version on the client CD includes the search plug-in. This is an enhancement to Acrobat Reader that provides the capability to search for keywords across the suite of online documentation. If Acrobat Reader 3.0 is not already installed on the client PC, then the upgrade program notifies you.

The client upgrade program does not automatically install Acrobat Reader 3.0. However, a copy of this software is available on the client CD in the MAS folder. During the upgrade, you are asked if you want to install Acrobat Reader from the client CD.

Therefore, you should check to see if Acrobat Reader 3.0 or higher is already installed on the client PC. If it is installed and you do not want to replace it with the version on the client CD, make sure that you also have the search plug-in (Asrch32.api) installed.

To upgrade the client software

- 1 Log on to the client PC. If you are upgrading the coresident client, log on as **NGenSys** with the appropriate password.

ATTENTION

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

- 2 Exit all applications and close all windows.
- 3 Insert the upgrade client CD into the CD-ROM drive.
- 4 From the Windows Start menu, choose Run.

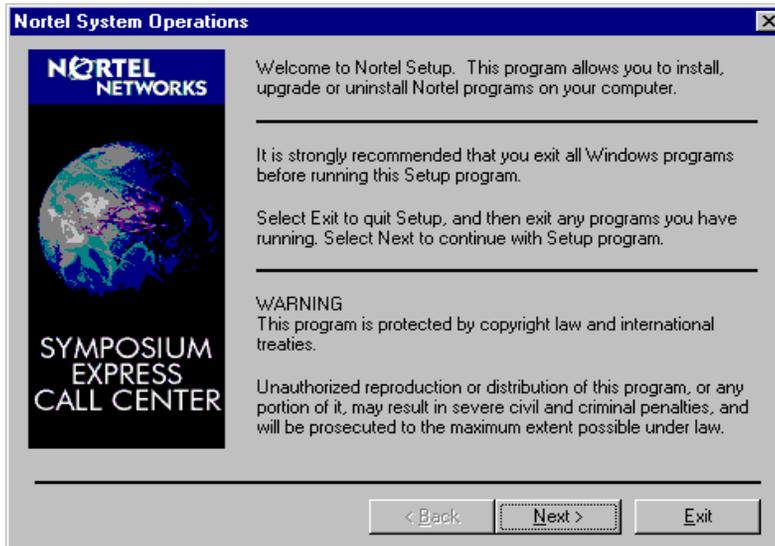
- 5 Click Browse, and then select Setup.exe from the root directory on the CD.
- 6 Click OK to run.
- 7 If the message Setup determines that DMI is not installed appears, click Yes. This appears only if you are upgrading a noncoresident client upgrading from Release 2.0.

Result: The Select the Log Directory Location window appears.



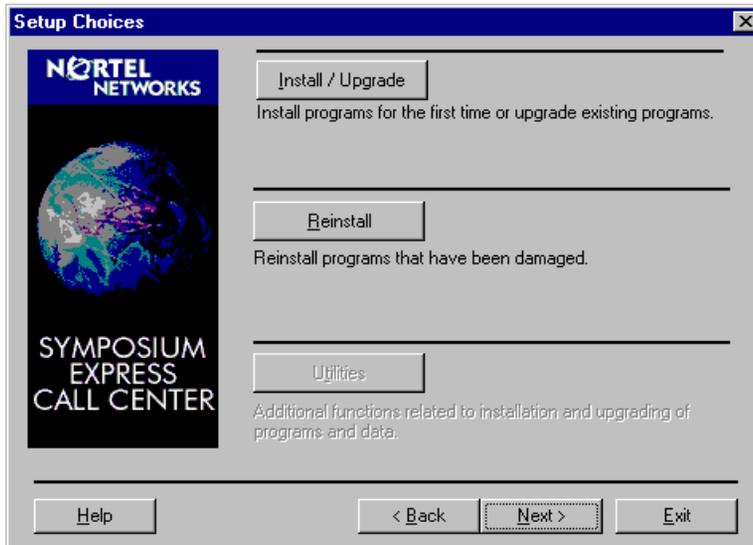
- 8 To change the location, click Browse, select the desired location, and then click Next.

Result: The Nortel System Operations welcome dialog box appears.



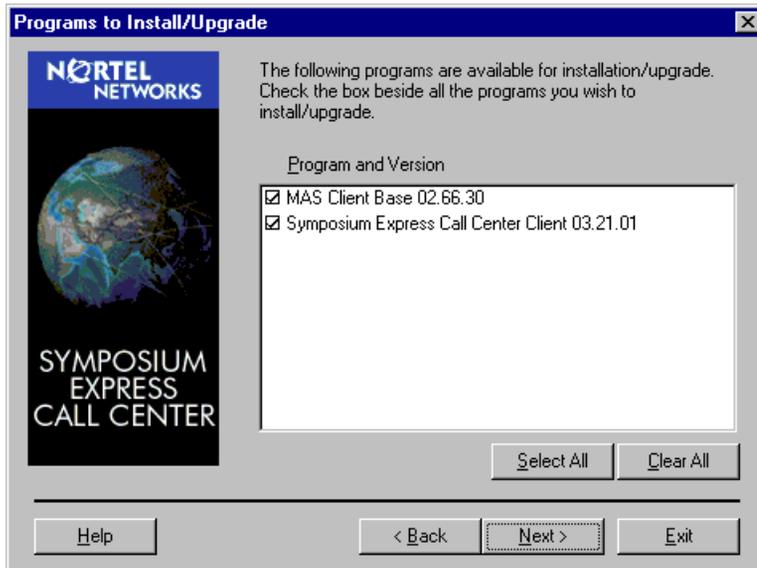
- 9 Click Next.

Result: If you are installing the client coresident with the server software, you see messages that state that services are shutting down. Then, the Setup Choices window appears.



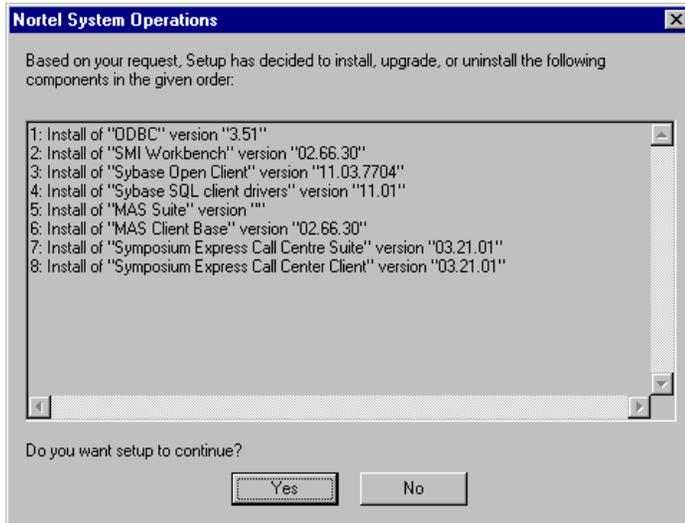
10 Click Install/Upgrade.

Result: Setup examines the system, and the Programs to Install/Upgrade dialog box appears.



- 11 Click Select All, and then click Next.

Result: The Nortel System Operations dialog box appears and lists all components in the order in which they will be installed.

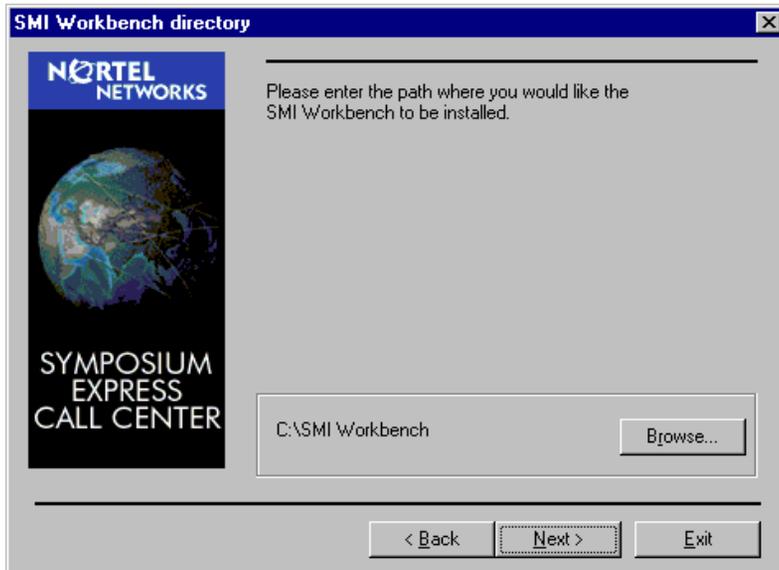


Note: Information on this window varies, depending on the components that are being upgraded and the client PC configuration.

- 12 Click Yes.

Note: If the message Setup has determined that the SMI Workbench cannot integrate with the version of MAT on your system. Would you like to continue with the installation? appears, click Yes to continue.

Result: Setup copies files to the client, and the SMI Workbench directory dialog box appears.

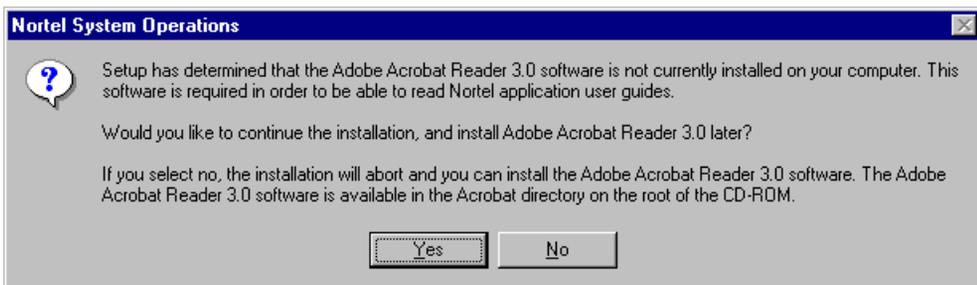


- 13 To change the location, click Browse and select the desired location.

Note: For the coresident client, accept the default location.

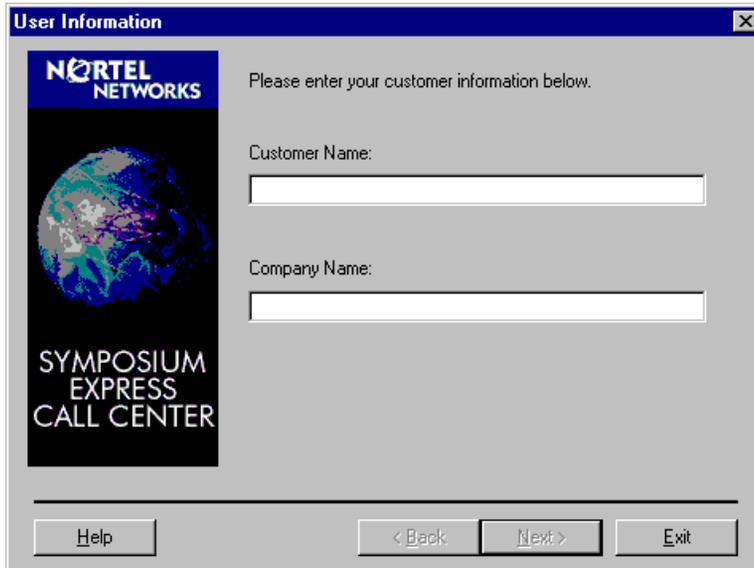
- 14 Click Next.

Result: The setup program checks to see whether the required version of Adobe Acrobat Reader is installed. If it is not installed, the following dialog box appears:



15 Click Yes.

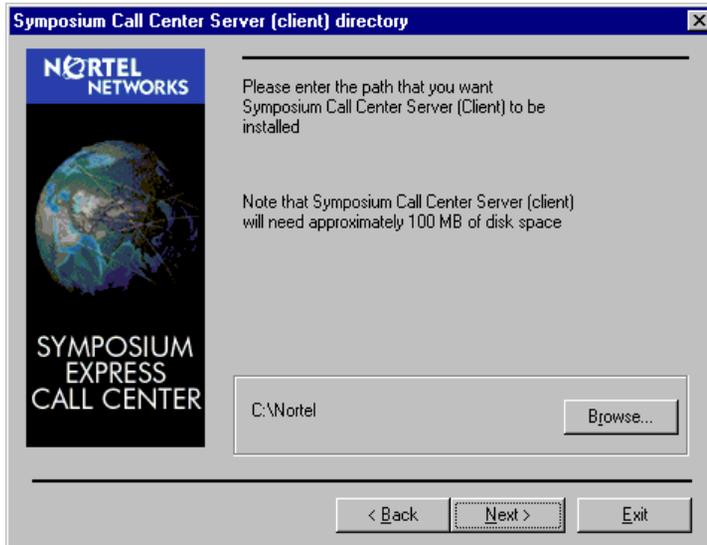
Result: The User Information dialog box appears. If you are installing the coresident client, this information is already filled in.



The image shows a Windows-style dialog box titled "User Information" with a close button (X) in the top right corner. On the left side, there is a vertical banner with the "NORTEL NETWORKS" logo at the top, a stylized globe in the middle, and the text "SYMPOSIUM EXPRESS CALL CENTER" at the bottom. The main area of the dialog box contains the text "Please enter your customer information below." followed by two input fields: "Customer Name:" and "Company Name:". At the bottom of the dialog box, there are three buttons: "Help", "< Back", and "Next >", and an "Exit" button.

- 16 Enter the customer name and company name, and then click Next.

Result: The Symposium Call Center Server (client) directory window appears.

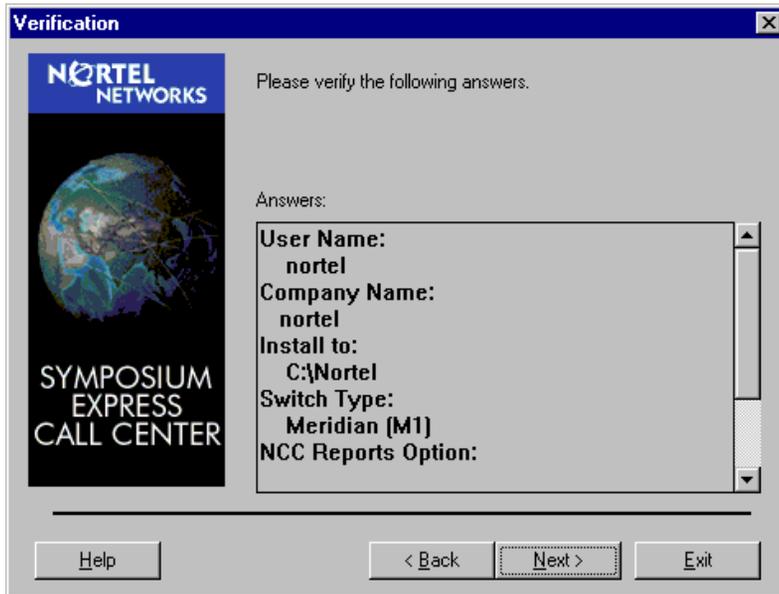


- 17 To change the location, click Browse and select the desired location.

Note: For the coresident client, accept the default location.

- 18 Click Next.

Result: The Verification window appears.



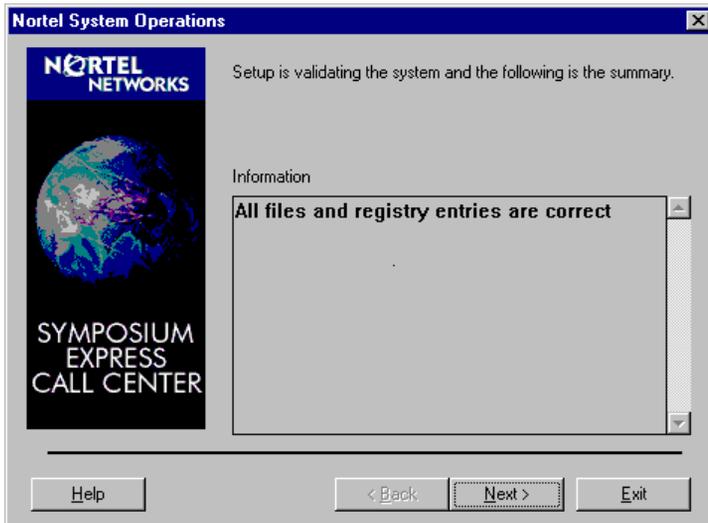
- 19 Verify that all options showing in the Verification dialog box are correct. If any errors appear, click Back to make the necessary corrections. Otherwise, click Next.

Result: Setup installs the listed components. This takes approximately 15 minutes.

ATTENTION

Do not touch the keyboard or mouse during the installation process, as they can cause the installation to fail.

When the installation has completed, the Nortel System Operations validation summary appears.



- 20 Click Next.

Result: The system asks whether you want to read the readme file.

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

Result: The program prompts you to restart.

- 22 Click Yes to restart the computer.

Result: The computer restarts, and the client upgrade is complete.

What's next?

- Install any software PEPs. For information, see “Installing software PEPs” on page 229.
- If you do not have a PEP CD, or after you install the PEPs, you must add an SMI system. For more information, see “Adding an SMI system” on page 296.
- Complete the required post-installation activities. For information, see “Post-installation” on page 293.
- Upgrade other client computers.
- Run the configuration report.

Reinstalling client software

Introduction

Use this procedure to reinstall the Symposium Express Call Center client application when it is damaged.

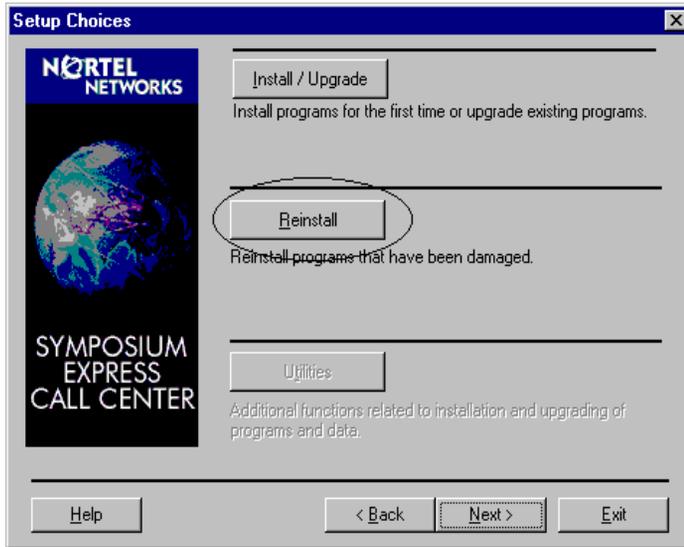
You can only perform a reinstallation on a client that has already been installed properly. For example, if you have a working client that suddenly has problems in the application software, you can try to reinstall the application software.

If you encounter a problem during a new installation, then you must uninstall and do the installation again.

Note: The reinstallation does not repair data files.

To reinstall client software

- 1 Follow the instructions for starting the client installation on page 198, and proceed to step 11. However, instead of clicking Install/Upgrade in step 11 on page 204, click Reinstall.



Result: The following message appears: You already have the current version of these programs. You do not need to reinstall these unless they are damaged. Click the box beside any program you wish to reinstall.

- 2 Click Next.

What's next?

- Reinstall any software PEPs. For information, see “Installing software PEPs” on page 229.
- If you do not have a PEP CD, or after you install the PEPs, you must add an SMI system. For more information, see “Adding an SMI system” on page 296.
- Complete the required post-installation activities. For information, see “Post-installation” on page 293.
- Run the configuration report.

Section C: Installing software PEPs

In this section

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Overview

Introduction

Product Enhancement Packages (PEPs) are software updates that are installed on the Symposium Express Call Center server or client.

PEPs can be provided on a supplementary CD, in the form of a Service Update pack, or individually. The supplementary CD generally contains Service Updates.

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. Use Service Update packs when available.

Service Update packs and PEPs are available from the Meridian PEP Library. For more information, contact your Nortel Networks customer support representative.

ATTENTION

When you install the client software (or upgrade to a new version), you should install the latest Service Update pack or PEPs on the server and on the client.

If you receive a Supplementary CD containing PEPs or Service Update packs with your Symposium Express Call Center application software, you should install them after you finish installing the client software. Otherwise, ensure you download the latest Windows 2000 PEPs from Meridian PEP Library.

Note: You may also receive supplementary CDs periodically; you should install these upon receipt. Check with Nortel Networks to determine whether new PEPs are available for your software.

Installing software PEPs

Introduction

This section contains procedures to install Symposium Express Call Center PEPs on PCs running the Windows 98 and Windows NT client application software. PEPs contain product enhancements and bug fixes, and are required to ensure the smooth operation of your system.

Before you begin

Ensure you have the latest PEPs. See page 228.

To install PEPs or Service Update packs on the client PC for Windows 98 or Windows NT

- 1 Log on to the Windows NT Server PC as **NGenSys**. If you are logging on to a stand-alone client PC, log on using the Administrator ID and password.
- 2 Shut down all applications, including screen savers.
- 3 If you are installing PEPs from a CD, insert the PEP CD into the CD-ROM drive.
- 4 Locate the PEP directory on the CD, or the directory into which you downloaded the PEPs.

Example: For the PEP named NE032105P001S, the path may be E:\03.21.05\PEPs\NE032105P001S, where

Code	Meaning
NE	Nortel Networks Symposium Express Call Center
032105	build number of Symposium Express Call Center software
P	<i>General Release</i> (Other options include SU=Service Update, L=Limited, and R=Restricted.)
001	the PEP number
S	a server PC PEP (Other options include C=Client.)

- 5 Check the readme file in the PEP directory for any special instructions or dependencies before installing the PEP.
- 6 Double-click the file runme.exe, and follow the window instructions.

Result: The PEP installer wizard verifies that the PEP can be installed successfully. For PEPs installed on the client PC, the PEP installer checks that no Symposium Express Call Center services are currently running. This process takes several minutes. The client PC is not shut down. The PEP is installed on the PC and all updated files are backed up.

Note: If the PEP installer detects that the PEP cannot be installed successfully, contact your Nortel Networks customer support representative for assistance.

Section D: Uninstalling client software

In this section

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Overview

Introduction

Follow the procedures in this section if you want to uninstall the client software for Symposium Express Call Center from a customer-supplied PC. This process removes any registry entries and other Symposium Express Call Center application software from the PC.

There are separate processes for uninstalling the client and server application software. For information on uninstalling server application software, see “Uninstalling the server application software” on page 185.

Note: On the coresident PC, you should always uninstall the client software first.

Uninstalling the 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, uninstall the client software first.

ATTENTION

Do not uninstall the client software before upgrading software.

This uninstall program removes the Sybase Open Client software from your computer. Applications that use the Sybase Open Client or Symposium Express Call Center shared registries may not be functional after this uninstall.

Before you begin

Ensure that the PC is not logged on to the server and there are no other applications running on the client computer.

Note: The uninstall (stand-alone client) procedure may not remove all files associated with Sybase, MAT Common Services, or the Nortel folder. Remnant disk files should not adversely affect subsequent installations of the client software. However, to ensure that all files are removed, reboot the client PC before uninstalling the client software to ensure that no processes are running on the client PC. If you experience problems uninstalling or reinstalling client software, see “Uninstall (stand-alone client) does not completely clean the registry” on page 389.

Uninstall PEPs from Windows 98 or Windows NT

During the uninstallation, PEPs are listed as components to uninstall in the Uninstall Programs dialog box. Ensure that all items in the dialog box are selected so that the PEPs are uninstalled.

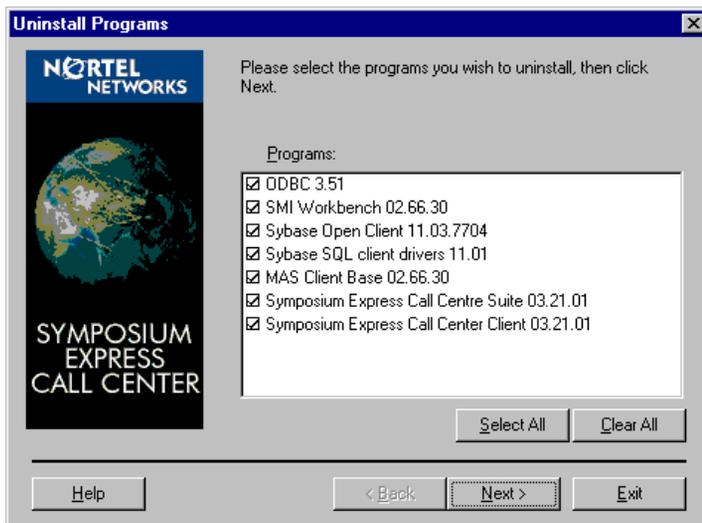
To uninstall the client software from a Windows 98 or Windows NT

- 1 Log on to the client PC.

Note: If the client PC is running Windows NT Workstation, log on as Administrator. You must be logged on with administrative privileges to uninstall Symposium Express Call Center software.

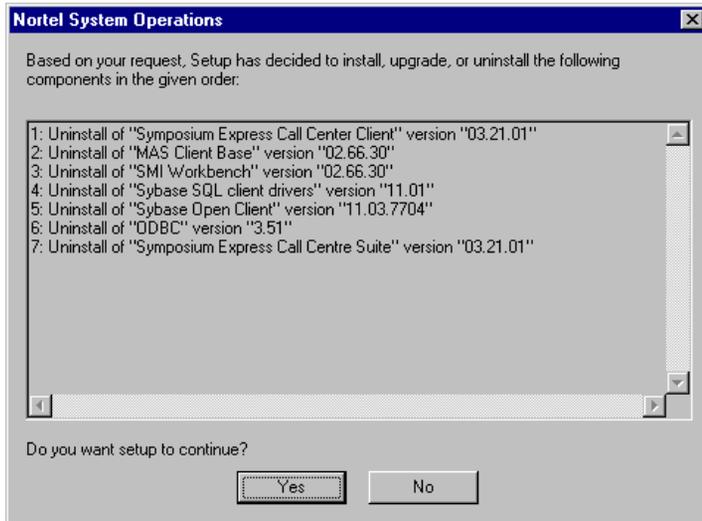
- 2 From the Windows Start menu, choose Programs → Symposium Express Call Center → Uninstall.

Result: Setup examines the system, and the Uninstall Programs dialog box appears.



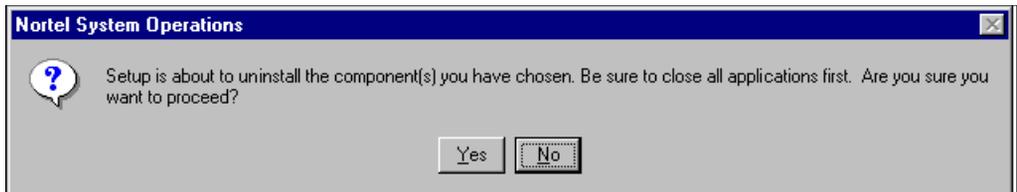
- 3 Click Select All, and then click Next.

Result: The Nortel System Operations dialog box appears and lists all of the components in the order in which they will be uninstalled.



- 4 Click Yes.

Result: A confirmation dialog box appears.



- 5 Click Yes.

Result: The Nortel System Operations uninstall summary dialog box appears.

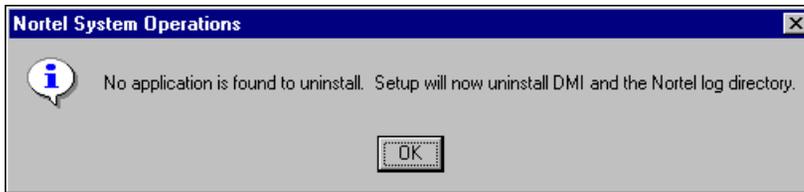
Note: If any window obscures the uninstallation summary, minimize the window.

- 6 Click OK.

Result: The system asks if you want to uninstall DMI and the Nortel Log directory.

- 7 Click Yes.

Result: The Nortel System Operations 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 Express Call Center features appears, click OK.

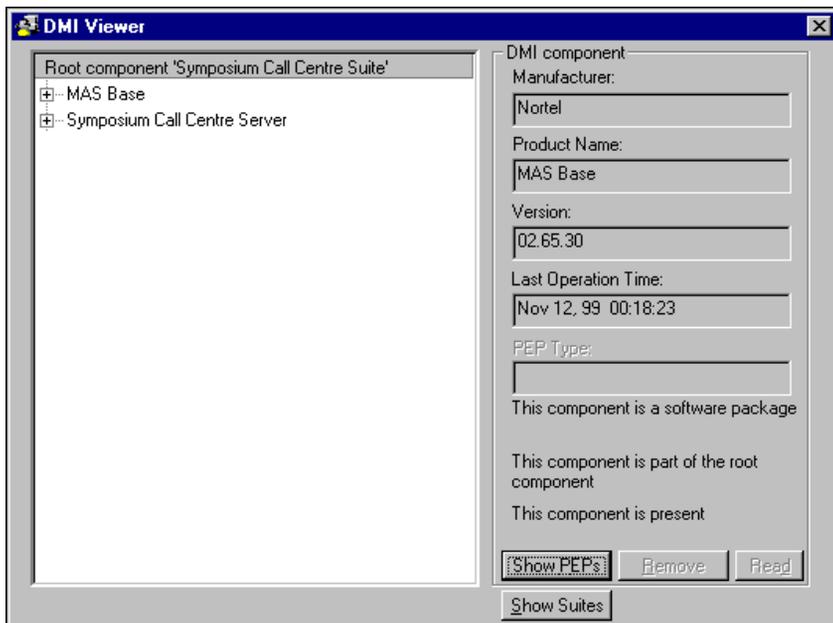
Uninstalling software PEPs

To uninstall PEPs from server or client PCs running Windows 98 or Windows NT

- 1 Log on to Windows as **NGenSys** for the server.
Log on to Windows as **Administrator** for the client PC.
- 2 Start the DMI View utility by choosing, from the Windows Start menu, Programs → Symposium Express Call Center → DMI View.

Note: For a coresident configuration, this shortcut appears as DMI View (Client) for the client and DMI View (Server) for the server.

Result: The DMI Viewer window appears.



- 3 Click Show PEPs.
- 4 Select the PEP you want to uninstall.

5 Click Remove.

Result: The utility removes the PEP and prompts you to restart.

6 Click OK to restart the server or client PC.

Chapter 5

Client software on Windows 2000 and Windows XP

In this chapter

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Overview

Introduction

This chapter describes the procedures for managing Symposium Express Call Center client software on a PC running the Windows 2000 Professional/Windows XP Professional operating system, including

- installing client software
- upgrading client software
- uninstalling client software
- installing and uninstalling PEPs
- using the PEP utility for a Windows 2000 Professional/Windows XP Professional client

Section A: Installing Windows 2000/ Windows XP client software

In this section

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Overview

Introduction

You can install the Symposium Express Call Center Release 3.0 client on a PC running Windows 2000 Professional or Windows XP Professional. The client installation software for Windows 2000 Professional/Windows XP Professional is packaged on a separate CD. Contact your Nortel Networks distributor for more information.

The Windows 2000/Windows XP client cannot coexist with the Symposium Express Call Center server.

Pre-installation

Introduction

Follow this procedure to install the Symposium Express Call Center client software, Windows 2000/Windows XP client version.

Timing

The installation procedure in this section takes approximately 1 hour to complete.

Before you begin

- Ensure that the PC is running the Windows 2000 Professional (with Service Pack 2) or Windows XP Professional operating system.
 - To check the Windows 2000 version, right-click the My Computer icon, and then choose Properties. In the Properties window, click the General tab to view the current installed version of Windows.
 - To check the Windows XP version, click Start → My Computer, and then select View System Information. The current installed version of Windows appears in the General tab.
- Ensure that the client PC is running Microsoft TCP/IP. Other types of TCP/IP do not work with Symposium Express Call Center.
 - To check the TCP/IP version in Windows 2000, select Start → Settings → Control Panel → Network → Local Area Connections. Microsoft TCP/IP should appear in the list of installed network components. For more information, select Properties. The IP addresses appear.
 - To check the TCP/IP version in Windows XP, select Start → Control Panel → Network and Internet Connections → Network Connections → Local Area Connections. Microsoft TCP/IP should appear in the list of installed network components. For more information, select Properties. The IP addresses appear.
- If an earlier version than version 12 of Sybase Open Client is installed on the client PC, uninstall it before installing the Symposium Express Call Center client software.

- Install Acrobat Reader 3.0 with the Search plug-in. You need Adobe Acrobat Reader to view online documentation. Adobe Acrobat Reader is available on the Symposium Express Call Center Release 3.0 Client Application CD in e:\acrobat\setup.exe, where e:\ is your CD-ROM drive. It is not automatically installed; you must install it.
- The Symposium Express Call Center Release 3.0 Windows 2000/Windows XP client is designed to run as a stand-alone client only.
- Refer to “Customer-supplied equipment and data checklist” on page 27, specifically the “Hardware and software checklist for client PCs with Windows 2000/Windows XP” on page 32.

Required installation software checklist

Installation items

The following table lists the software you need to complete the Symposium Express Call Center installation:

Check Qty	Description
1	Symposium Express Call Center Release 3.0 Client Application CD. This CD contains the setup program and all software to be installed on the client PC(s).
1	Symposium Express Call Center Supplementary CD (if supplied). If no Supplementary CD is supplied, you must download Windows 2000/Windows XP PEPs from the Meridian PEP Library. For more information, contact your Nortel Networks customer support representative.

Checklist for installing Symposium Express Call Center Windows 2000/Windows XP client software

The following table summarizes the steps involved in installing the client software. You must complete all of these steps:

Step	✓
Review the requirements in the checklist on page 32.	
Obtain the user ID and password that you need to log on to the client PC. This account must have local administrative privileges.	
Check the temp directory size. See “Checking the temp directory size” on page 247.	

Step (Continued)	✓
Install PEPs. See “To install PEPs or Service Update packs on the Symposium Express Call Center client PC for Windows 2000/Windows XP” on page 281.	

Note: If an earlier version than Version 12 of Sybase Open Client is installed on the client PC, uninstall it before installing the Symposium Express Call Center Windows 2000/Windows XP client.

Limitations

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.

Unsupported combinations

The Symposium Express Call Center client application cannot reside on the same PC as

- earlier versions of the Symposium Express Call Center client application
- the Symposium 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.

Uninstalling the Software Development Kit

Before you install client software, you must ensure that the Software Development Kit (SDK) is not installed on the client PC. SDK and Symposium Express Call Center 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 2000, from the Windows Start menu, choose Settings → Control Panel.
 - In Windows XP, from the Windows Start menu, choose Control Panel.
- 3 In Windows 2000, double-click Add/Remove Programs.
- 4 In Windows XP, double-click Add or Remove Programs.
- 5 Click Change or Remove Programs.
- 6 Scroll through the list, looking for Symposium Express Call Center Runtime or Symposium Call Center Runtime. If this program appears in the list, continue with the following steps to uninstall it.
- 7 Click Remove.
- 8 A confirmation dialog box appears.
Result: A WARNING dialog box appears.
- 9 Click Yes.
Result: The system prompts: Uninstall Finished. Please reboot your system.
- 10 Click OK.
- 11 Restart the computer.

Checking the temp directory size

Use this procedure to ensure that you have at least 500 Mbytes of free space on the hard drive containing your Windows temp directory. (This directory is usually located on drive C.) The client software requires 500 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 From the Windows Start menu, choose Run.
- 3 In the text box, type **cmd**.
- 4 Click OK.
- 5 Navigate to the path where the temp directory is stored.

Tip: Use the DOS Change Directory (CD) command.

- 6 At the prompt, type **dir** and press <Enter>.

Result: The contents of the current directory appear, along with a summary of free disk space.

- 7 Check the amount of free disk space that appears on the last line:
 - If the free disk space summary shows more than 500 Mbytes, then you can proceed with installing the client software.
 - If the free disk space summary shows less than 500 Mbytes of free disk space, then remove unnecessary data or programs from the PC until you have at least 500 Mbytes of free disk space.

To delete temporary files

You should delete temporary files on a regular basis. This avoids potential disk space problems caused by the accumulation of large temporary files created from generating reports and from other client activities. To delete temporary files, follow these steps.

- 1 From Windows Explorer, navigate to your system's temporary directory.

Note: The usual path to this directory is c:\winnt\temp or c:\Documents and Settings\Administrator\Local Settings\Temp.
- 2 Select and then delete all files in the temporary directory.
- 3 From Windows Explorer, navigate to the Recycle Bin and choose File → Empty Recycle Bin.

Installing the client software on Windows 2000 or Windows XP

To start the client installation

- 1 Log on to the client PC as **Administrator**. You must be logged on with an account that has local administrative privileges to install Symposium Express Call Center software.
- 2 Exit all applications and close all windows.
- 3 Insert the Symposium Express Call Center Release 3.0 Windows 2000/Windows XP Client Application CD into the CD-ROM drive.

Result: The Setup program starts automatically and loads the installation wizard. After analyzing the current version of Windows installer, the InstallShield Wizard window appears.



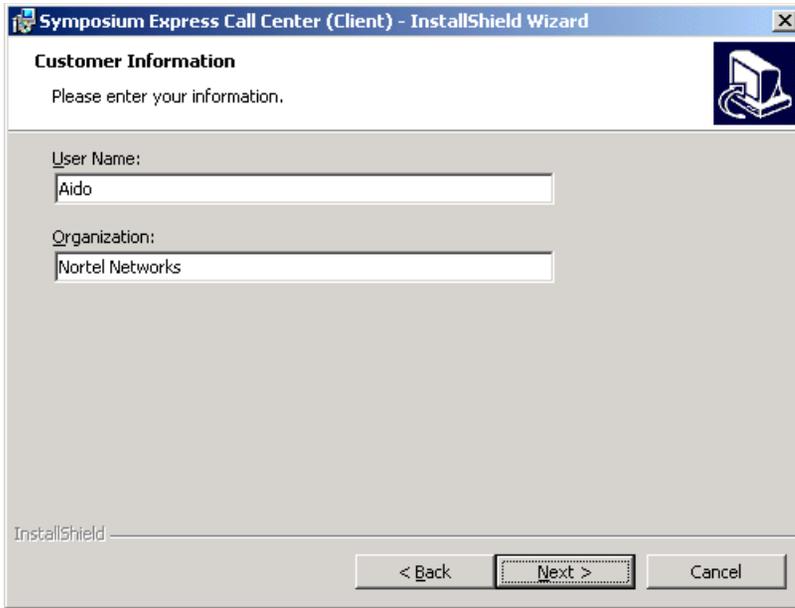
Note: If the CD does not autorun (that is, start the installation automatically), then click Start → Run → Browse, and select Setup.exe from the root directory on the CD. Click OK to run.

ATTENTION

As highlighted in the window above, if you are performing an upgrade, refer to Section B: “Upgrading client software,” on page 257.

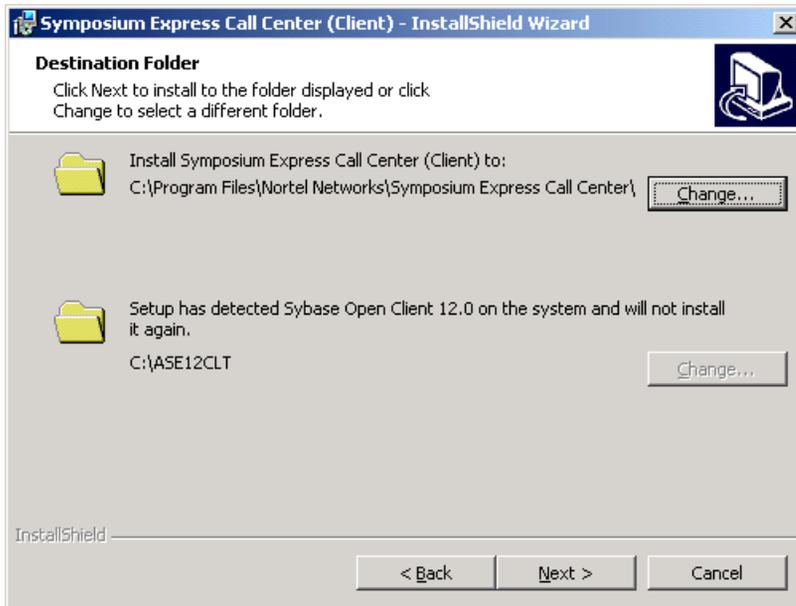
- 4 Click Next.

Result: The Customer Information window appears.



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

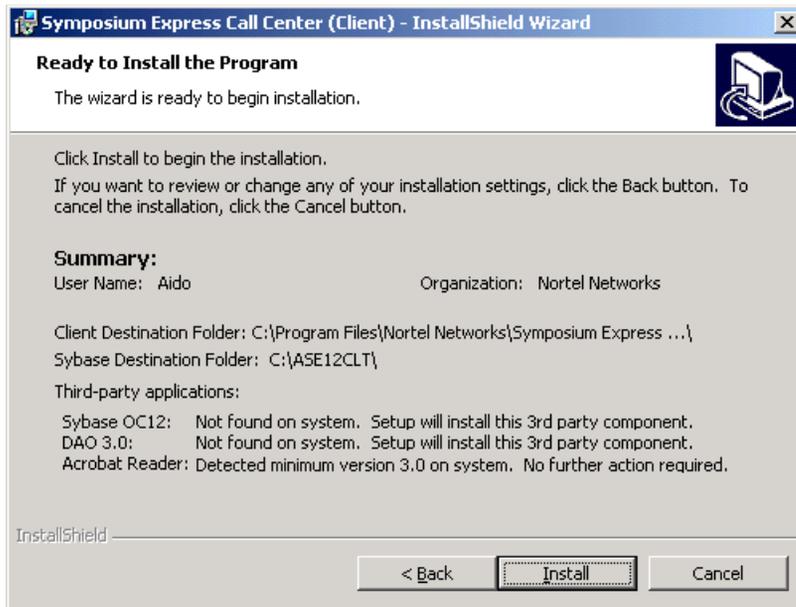
Result: The Symposium Express Call Center (Client) Destination Folder window appears.



- 6 To change the location of either Symposium Express Call Center (Client) or Sybase Open Client, click Change, and then select the desired location.

7 Click Next.

Result: The Verification window appears.



8 Verify that all options showing in the Verification window are correct. If any errors appear, click Back to make the necessary corrections.

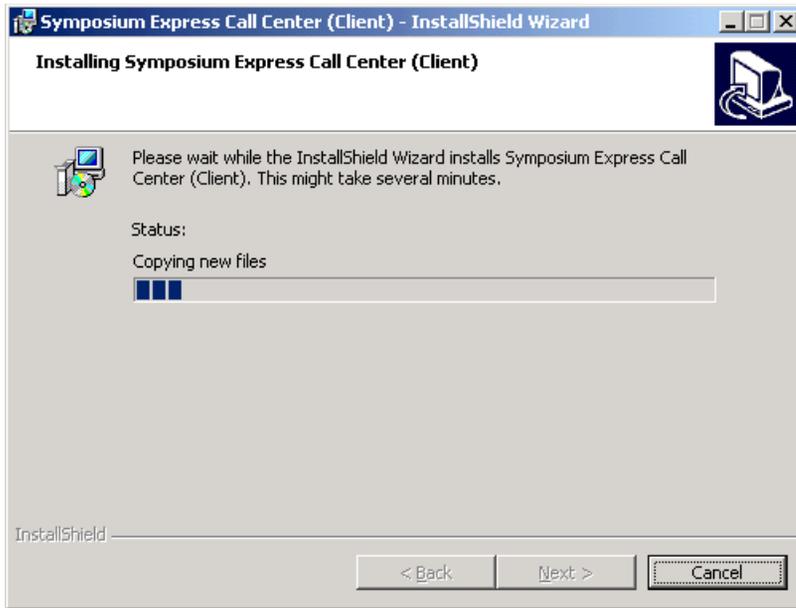
Note: As you can see in the above window, Setup has detected that Sybase OC12 (Sybase Open Client 12) and DAO 3.0 (Microsoft Data Access Objects 3.0) are not installed on the system, and it will install them. Adobe Acrobat Reader is currently available on the system— No further action required. If Adobe Acrobat is not found on the system, it can be installed from the client CD at e:\acrobat\setup.exe, where e:\ is your CD-ROM drive letter.

9 If no errors appear in the Verification window, click Install.

Result: Setup installs the listed components. This takes approximately 10 minutes.

10 As the wizard installs the necessary components, progress appears on the screen. A sample screen appears below. The installation details and status

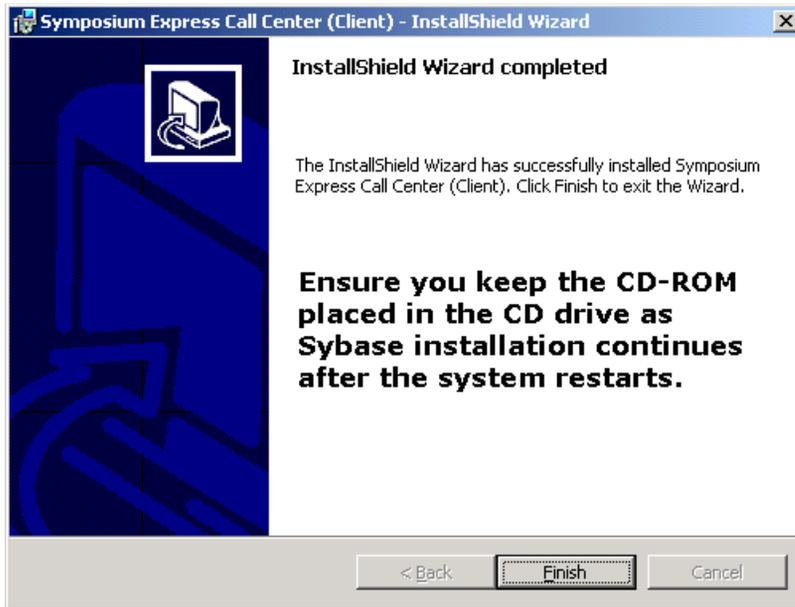
messages change as the installation proceeds. As you can see below, installation is beginning to copy new files to the system.



- 11 When the system has finished copying new files, Setup installs the third-party components, which include Sybase Open Client Version 12 and DAO 3.0. The client installation program installs both of these components automatically if they are not found on the system.

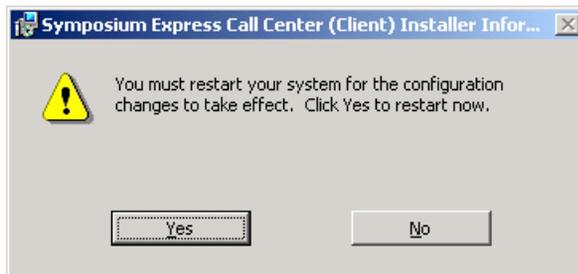
- 12 When the installation is complete, the InstallShield Wizard completed window appears.

Result: The program displays the InstallShield Wizard completed window.



- 13 Click Finish to complete the first part of the installation process.

Result: The program prompts you to restart.



- 14** Click Yes to restart the computer.

Result: The computer restarts, and the first part of the client installation is complete.

- 15** When the computer has restarted, log on again using the same User ID and password as before.

Result: Once you are logged on again, the system completes the installation by configuring Sybase Open Client (automatically self-executing), populating both the MAS and Symposium Express Call Center databases, and removing temporary files created during the install process.

- 16** Once temporary files have been removed, the client is now fully installed.

To access Symposium Express Call Center

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

Note: In the SMI Workbench folder, you must add an SMI system for each server before you can connect from the client PC. For information, see “To add an SMI system” on page 296.

What's next?

If you did not receive a PEP CD, check whether there are any PEPs available for the version of the software you just installed. You can download PEPs and Service Update packs from the Meridian PEP Library. For more information, contact your Nortel Networks customer support representative.

If you received a PEP CD, then install the PEPs. For information, see “PEPs” on page 279.

Complete the required post-installation activities. For information, see “Post-installation” on page 293.

Section B: Upgrading client software

In this section

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Upgrade paths	259

Overview

Introduction

This section describes how to upgrade client software from within Symposium Express Call Center Release 3.0.

Notes:

- You must upgrade the client software after you upgrade your Symposium Express Call Center server from Release 2.0 to Release 3.0. You cannot connect to a Release 3.0 Symposium Express Call Center server using a Release 2.0 client.
- Follow this procedure to upgrade the client software to a newer version of Symposium Express Call Center Release 3.0 on a Windows 2000/Windows XP client.
- Windows 2000/Windows XP clients only operate with Release 3.0.
- To upgrade from Release 1.0 to Release 3.0, you must first upgrade to Release 2.0. Refer to the *Nortel Networks Symposium Express Call Center Planning, Installation, and Administration Guide*, Release 2.0.
- You cannot downgrade to a previous version of Symposium Express Call Center software.

Upgrade paths

Data Migration Utility

The Data Migration Utility, also referred to as the Data Migration Wizard, enables you to back up the existing customized client data (for example user-defined and user-created reports) before completing an upgrade of the client software, where no direct upgrade path is available.

The Data Migration Utility is included in the Symposium Express Call Center Release 3.0 for Windows 2000/Windows XP clients, and provides the facility to export data from the existing client and import data to the new Windows 2000/Windows XP client.

Operating systems

The following operating systems and their corresponding versions of Symposium Express Call Center Client are supported by the Data Migration Utility:

Supported client PC Windows Operating System	Symposium Express Call Center client version
Windows 98, Windows NT 4.0 Workstation	2.0
Windows 98, Windows NT 4.0 Workstation	3.0 (Windows 98, Windows NT 4.0 client)
Windows 2000 Professional, Windows XP Professional	3.0 (Windows 2000/Windows XP client)

Before you begin

Locate where all existing user-created reports are stored on the existing client PC, and make a copy of them in a safe location.

To locate reports

- 1 Launch the Symposium Express Call Center SMI Administration window on the client.
- 2 Launch the Reports application.
- 3 Select View → User-created reports.
- 4 Select a report, and then right-click it.
- 5 Select Properties.
Result: The directory path appears, indicating the report location.
- 6 Make a record of the report location.
- 7 Repeat this process for all user-created reports.
- 8 Keep the record of the report locations.
- 9 Copy all the user-created reports to a safe location, such as a secondary partition that is not shared with the operating system, or a mapped network shared location.

Upgrading client software to Symposium Express Call Center Release 3.0 Windows 2000/Windows XP

This section describes how to upgrade from a Symposium Express Call Center Release 2.0 or 3.0 client to a Symposium Express Call Center Release 3.0 Windows 2000/Windows XP client:

1. Run the Data Migration Utility to export client data.
2. Uninstall the 2.0 or 3.0 client software.
3. Install Microsoft Windows 2000 Professional and Service Pack 2 or Windows XP Professional.
4. Install the Symposium Express Call Center Windows 2000/Windows XP client software.
5. Run the Data Migration Utility to import the data you previously exported.
6. Install PEPs.

7. Add an SMI System.

Introduction

Follow this procedure to upgrade client software to Symposium Express Call Center Release 3.0 on Windows 2000 or Windows XP, or to upgrade from Symposium Express Call Center Release 2.0 to Symposium Express Call Center Release 3.0 on Windows 2000 or Windows XP.

Note: You must have administrator privileges to perform client installations for Windows 2000/Windows XP.

ATTENTION

If you are removing the existing installation from the client, you must ensure that client data is safely stored (for example to a separate partition) before starting the uninstall.

Reports location management

When exporting client data, the Data Migration Utility asks you to select a location to store the client data.

The Data Migration Utility creates a subdirectory (client\en\rpt\UserCreated) in the location you selected, and exports the data there. It also creates a file (UserCreatedReports.txt) and locates this file in the root directory of the export location you defined. You can use this file to view locations of previous user-created reports.

Later, after the client is upgraded, the Data Migration Utility imports the data from the export location you selected onto the upgraded client.

Finally, after the data import is complete, the user-created reports must be copied to the exact location on the upgraded client as on the original client. See “To locate reports” on page 260.

To export the data

- 1 Ensure that no SMI workbench sessions are running on the client PC before you start the exporting process.

ATTENTION

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.

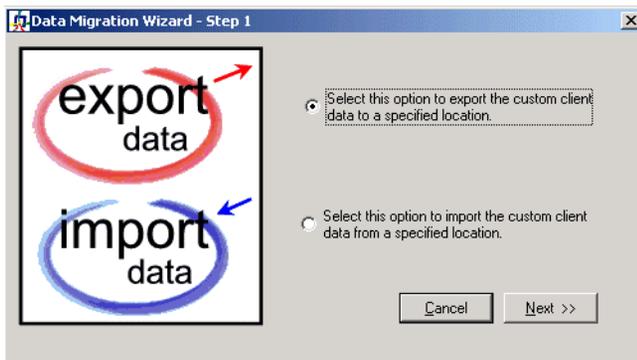
- 2 Identify where the existing user-created reports are currently stored, and then record the location(s). See “To locate reports” on page 260.
- 3 Decide where you want to store the exported client data. If you want to create a new folder to store the data, do so now.
- 4 Log on to the client PC. If applicable, use the local administrator account.
- 5 The Data Migration Utility is located on the Symposium Express Call Center Windows 2000/Windows XP Release 3.0 CD. To run the Data Migration Utility, follow these steps:

- a. Insert the CD into the CD-ROM drive.

Note: The setup program starts automatically and loads the installation wizard. As you will not be performing an install, click Cancel to exit the wizard.

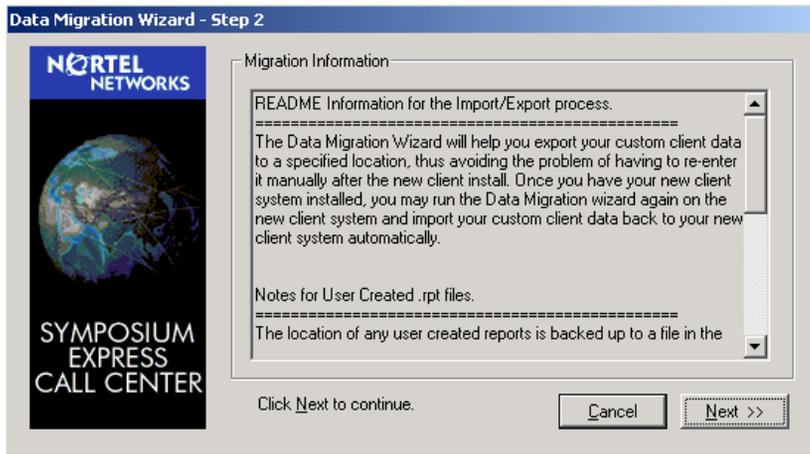
- b. From the Start menu, select Run → Browse, and Datamgr.exe from the root directory of the CD. Click OK to run.

Result: The Data Migration Wizard window appears.



- 6 Ensure the export option button is selected, and then click Next.

Result: The next Data Migration Wizard window appears with general information concerning the import/export process.



- 7 Read the text, and then press Next to continue.

Result: The Export folder - Step 3 window appears.



- 8 Select the folder where you want to save your exported data.

- a. In this folder, the Data Migration Utility creates a subdirectory: client\en\rpt\UserCreated.
- b. The Data Migration Utility also creates a file called UserCreatedReports.txt, which is located in the root directory that you selected.

For example, if you selected D:\export as the location for your exported data, the Data Migration Utility creates the subdirectory in D:\export\client\en\rpt\UserCreated.

The Data Migration Utility creates the file UserCreatedReports.txt in D:\export.

ATTENTION

Ensure that the folder you select is in a safe location.

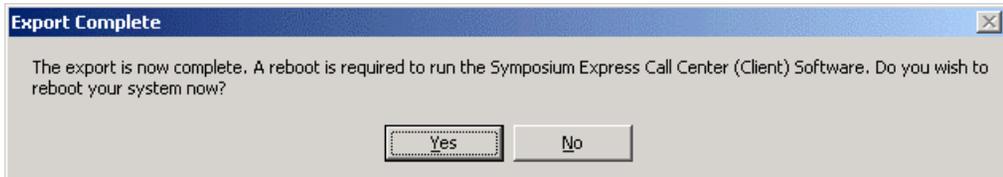
- 9 Click OK.

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 computer.



- 10 Click OK.

Result: At this point, you may need to wait while the program completes its tasks. The system informs you when the export is complete and asks you to restart the client computer.



- 11 Click Yes.

Uninstall the old client software

You now have the following options:

1. Uninstall the Release 2.0 or 3.0 software, upgrade your operating system to Windows 2000 Professional or Windows XP Professional, and then load the Symposium Express Call Center Windows 2000/Windows XP client.

Or

2. Completely reinstall your operating system to Windows 2000 Professional or Windows XP Professional, and then load the Symposium Express Call Center Windows 2000/Windows XP client.

For details on how to uninstall the Release 2.0 client, see page 91 of the *Nortel Networks Symposium Express Call Center Planning, Installation, and Administrative Guide*, Release 2.0.

For information on how to uninstall the Windows 98 or Windows NT Release 3.0 client, see “Uninstalling client software” on page 271.

To install the Windows 2000/Windows XP client Release 3.0

To import client data

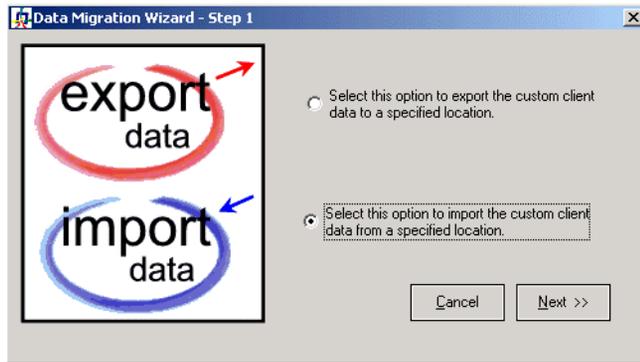
Follow this procedure to import your customized client data (such as user-defined and user-created reports) to the new Release 3.0 Windows 2000/Windows XP Client, and copy the user-created custom Crystal Reports back to their original locations.

- 1 Log on to the client PC using the local Administrator account.

Note: You must be logged on with administrative privileges to run the Data Migration Utility.

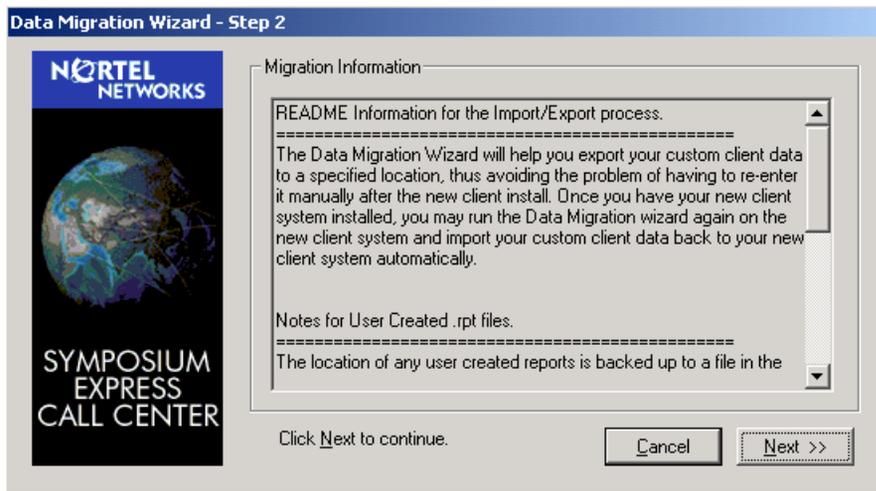
- 2 Click Start → Programs → Symposium Express Call Center → Data Migration Wizard.

Result: The Data Migration Wizard - Step 1 dialog box appears.



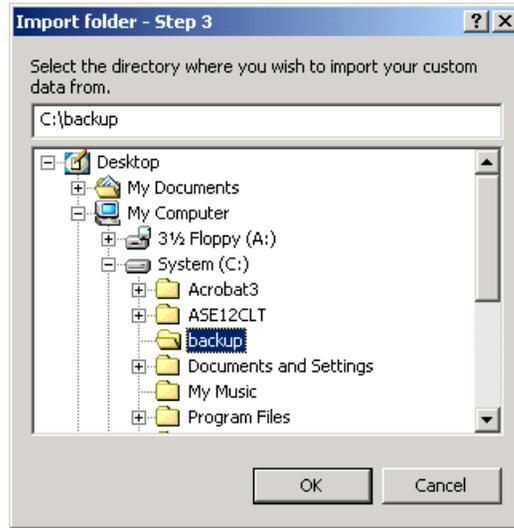
- 3 Select the import option button, and then click Next.

Result: The Data Migration Wizard - Step 2 window appears with general information concerning the import/export process.



- 4 Read the text, and then press 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.

Tip: Go to the same folder to which you previously exported your data at step 8 on page 263.

- 6 Click OK to continue.

Result: A confirmation dialog box appears informing the user that the import may take a few minutes.



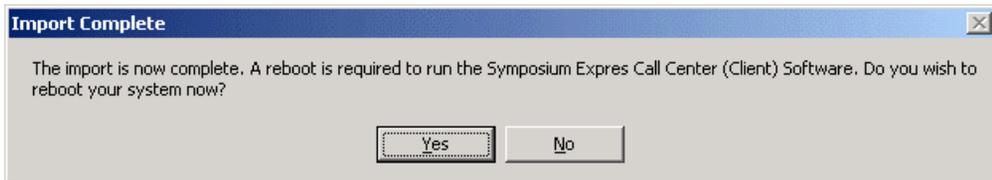
- 7 Click OK to continue.

Note: At this point, you may need to wait while the program completes its tasks. If you are importing data from Symposium Express Call Center Release 2.0, the dialog box below appears. This dialog box appears during the reports database conversion phase.



- a. Click OK to continue.

Result: The data is imported. When the import is complete, the system informs you that you must restart the computer.



- 8 Click Yes to reboot.
- Result:** The system restarts.
- 9 When the operating system has restarted, copy all user-created report files from the location to which they were imported (that is, <install Directory>\client\en\rap\UserCreated\..) to the exact location where they were on the previous system. (<Install Directory> is the folder where you installed the Windows 2000 or Windows XP client.)

For more information, see “Reports location management” on page 261.

Result: The data is now imported from the backup location to the Release 3.0 client.

Installing PEPs

You must install the Symposium Express Call Center Windows 2000/Windows XP client PEPs now. For information on installing PEPs, see “PEPs” on page 279.

Adding an SMI system

If you do not have a supplementary CD, or after you install the PEPs, you must add an SMI system. This enables you to connect to the Symposium Express Call Center server. See “To add an SMI system” on page 296.

Section C: Uninstalling client software

In this section

Overview	272
Uninstalling client software from Windows 2000/Windows XP client PCs	273

Overview

Introduction

Follow the procedures in this section if you want to uninstall the Symposium Express Call Center Windows 2000/Windows XP client software for Symposium Express Call Center from a customer-supplied PC. This process removes any registry entries and other Symposium Express Call Center application software from the PC.

Uninstalling client software from Windows 2000/Windows XP client PCs

Introduction

Uninstall the client software when you want to use the client PC for another purpose. If you must reinstall the client software, uninstall the client software first.

ATTENTION

 Uninstall all PEPs before you uninstall the client software.

Before you begin

Ensure that the PC is not logged on to the server and there are no other applications running on the client computer.

To uninstall the client software from a Windows 2000/Windows XP client PC

Follow the uninstallation checklist below when uninstalling the client software from a Windows 2000/Windows XP client PC.

Uninstallation checklist

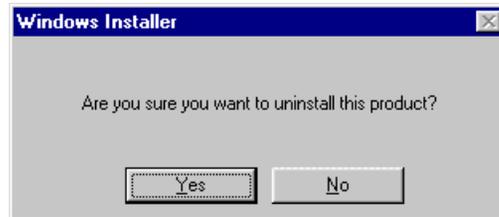
Steps	✓
Obtain the user ID and password that you need to log on to the client PC. This account must have local administrative privileges.	
Uninstall all PEPs. See “PEPs” on page 279.	

Note: You must remove client PEPs before uninstalling the client software. To remove PEPs, see “PEPs” on page 279.

To uninstall the client software

- 1 Log on to the client PC as **Administrator**. You must be logged on with an account which has local administrative privileges to uninstall Symposium Express Call Center software.
- 2 From the Windows Start menu, choose Programs → Symposium Express Call Center → Uninstall.

Result: A confirmation dialog box appears, asking if you are sure you want to proceed with the uninstall.



- 3 Click Yes.

Result: Setup examines the system, and the Uninstall Notes dialog box appears.



- 4 Click OK to continue the uninstall, or Cancel to exit.
- 5 Once the client uninstall has finished, the program prompts you to restart.
- 6 Click Yes to restart the computer.

Result: The computer restarts. The client uninstall is complete.

Note: You can also uninstall the client using the Add/Remove Programs window (for Windows 2000), or the Add or Remove Programs window (for Windows XP) in the Control Panel. Click the Remove option opposite Symposium Express Call Center (Client) in the Currently installed programs list box.

Uninstalling related software manually

The uninstall (stand-alone client) process does not remove all files associated with Sybase, DAO, or ISScript. You can manually uninstall these components as outlined in “To uninstall DAO and ISScript manually” below, and “To uninstall Sybase ASE 12 manually” on page 276.

The following folders and registry entries can be removed manually when the client uninstall has completed (only if there is no other Nortel Networks software installed):

Files/Folders

- C:\secc.log
- C:\seccun.log
- <installdir>\Program Files\Nortel Networks

Registry Entries

- HKEY_LOCAL_MACHINE\SOFTWARE\Nortel
- HKEY_CURRENT_USER\SOFTWARE\Nortel

To uninstall DAO and ISScript manually

You can manually remove DAO and ISScript when the client uninstall has completed. As these components are installed using third-party installation programs, they are not automatically uninstalled when the Symposium Express Call Center client is uninstalled.

To remove DAO

- 1 From the Windows start menu, choose Settings → Control Panel → Add/Remove Programs.
- 2 Select Data Access Objects (DAO) 3.0.
- 3 Click the Remove button to the right of the application name.

Result: DAO will be uninstalled.

To remove ISScript

- 1 From the Windows start menu, choose Settings → Control Panel → Add/Remove Programs,
- 2 Select ISScript.
- 3 Click the Remove button to the right of the application name.

Result: ISScript is uninstalled.

To uninstall Sybase ASE 12 manually

There is no uninstall program for the Sybase ASE 12 software, which is installed during the Symposium Express Call Center Windows 2000/Windows XP client installation. Use the following procedure to uninstall Sybase ASE 12.

ATTENTION

There is a 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.

To remove Sybase ASE 12

- 1 From the Windows start menu, choose Run.
- 2 Type regedit, and then click OK.
Result: The Registry Editor window appears.
- 3 Navigate to HKEY_LOCAL_MACHINE/System/CurrentControlSet/Control/Session Manager/Environment.
- 4 Next:
 - a. Remove values Sybase and Sybase_OCS.
 - b. Modify the PATH key to remove any Sybase-related paths.
Note: Do not remove any winnt paths by mistake.
- 5 In HKEY_LOCAL_MACHINE/Software, remove the key sybase.
- 6 Exit Regedit.

- 7 Delete the Sybase folder.

Note: When Sybase is installed with Symposium Express Call Center Windows 2000/Windows XP client, the default folder is C:\ASE12CLT.

- 8 Reboot the client PC.

Result: Once the client computer has restarted, you have removed Sybase from the client PC.

Section D: PEPs

In this section

Overview	280
Installing PEPs on a Windows 2000/Windows XP client	281
PEP Utility	287
Uninstalling software PEP(s) from a Windows 2000/Windows XP client	289

Overview

Introduction

Product Enhancement Packages (PEPs) are software updates that are installed on the Symposium Express Call Center server or client.

PEPs can be provided on a supplementary CD, in the form of a Service Update pack, or individually. The supplementary CD generally contains Service Updates.

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. Use Service Update packs when available.

Service Update packs and PEPs are available from the Meridian PEP Library. For more information, contact your Nortel Networks Customer Support representative.

ATTENTION

When you install the client software (or upgrade to a new version), you should install the latest Service Update pack or PEPs on the server and on the client.

If you receive a Supplementary CD containing PEPs or Service Update packs with your Symposium Express Call Center application software, you should install them after you finish installing the client software. Otherwise, ensure you download the latest Windows 2000/Windows XP PEPs from the Meridian PEP Library.

Note: You may also receive supplementary CDs periodically; you should install these upon receipt. Check with Nortel Networks to determine whether new PEPs are available for your software.

Installing PEPs on a Windows 2000/Windows XP client

Introduction

This section contains procedures to install Symposium Express Call Center PEPs on Windows 2000/Windows XP client PCs. PEPs contain product enhancements and bug fixes, and are required to ensure the smooth operation of your system.

Before you begin

Ensure you have the latest PEPs. See page 280.

To install PEPs or Service Update packs on the Symposium Express Call Center client PC for Windows 2000/Windows XP

- 1 Log on to the client PC as **Administrator**. You must be logged on with an account which has local administrative privileges to install PEPs.
- 2 Shut down all applications.
- 3 Locate the latest PEPs.
- 4 Load the PEPs onto the client PC.

ATTENTION

For the Symposium Express Call Center Windows 2000/Windows XP GA release, the PEP numbering scheme is 032107.

Example:

For the PEP named NW032107P001C, the path may be E:\03.21.07\PEPs\NW032107P001C, where

Code	Meaning
NW	Nortel Networks Symposium Express Call Center Windows 2000/Windows XP

Code	Meaning
032107	GA Build
P	PEP (Other options include SU=Service Update, L=Limited, and R=Restricted.)
001	the PEP number
C	a client PC PEP

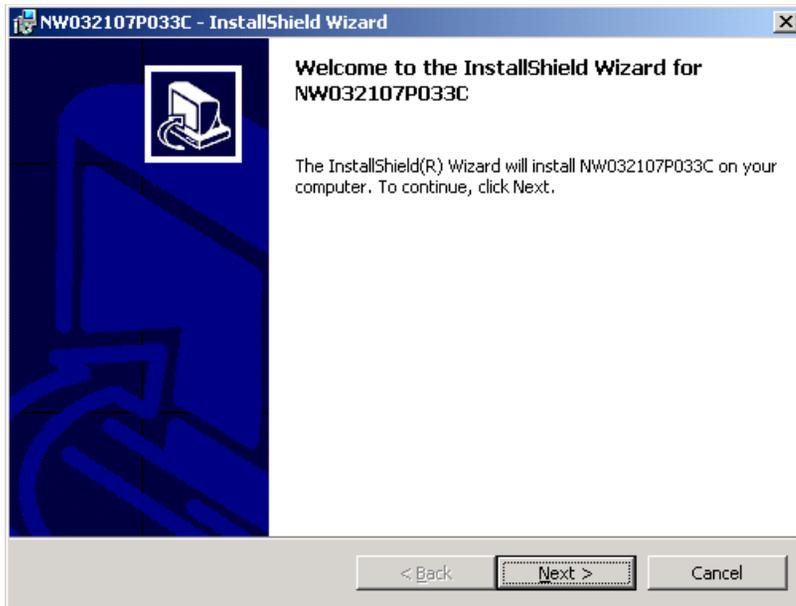
ATTENTION

 Check the readme file in the PEP directory for any special instructions or dependencies before installing the PEP.

- 5 Go to the directory where the PEPs are located.

- 6 Double-click the file name for the PEP you want to install (that is, PEP NW032107P001C will have a file name called NW032107P001C.msi).

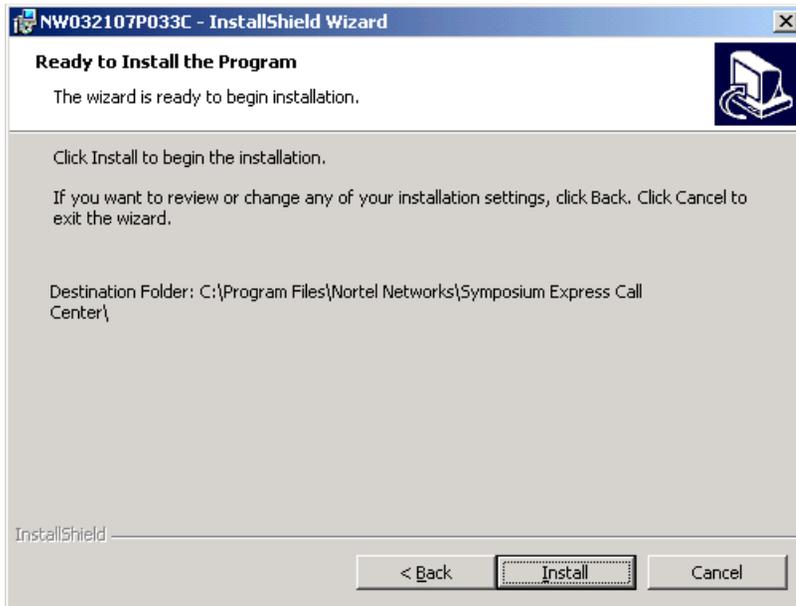
Result: The PEP InstallShield Wizard window opens. It checks that no Symposium Express Call Center services are currently running. The client PC is not shut down.



- 7 Click Next.

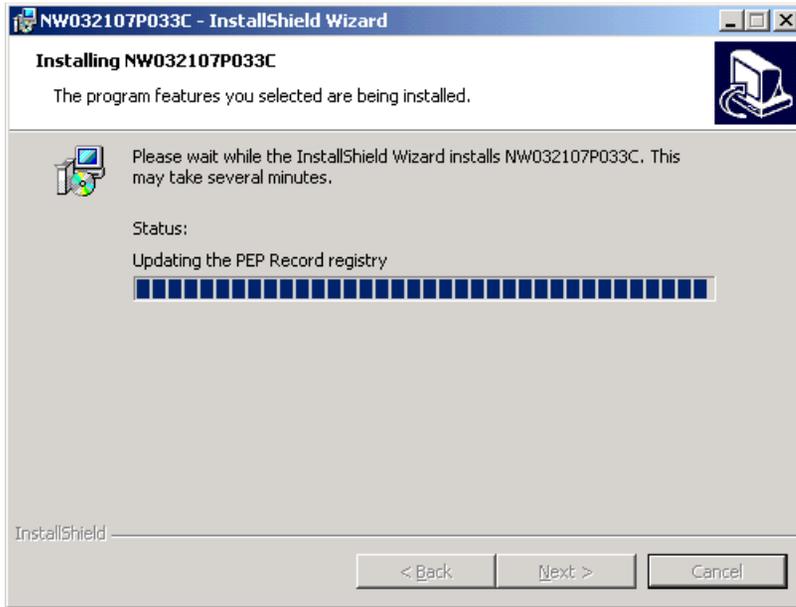
Result: The Ready to Install window opens.

If you want to change any installation settings, click Back. If you want to exit the wizard, click Cancel.

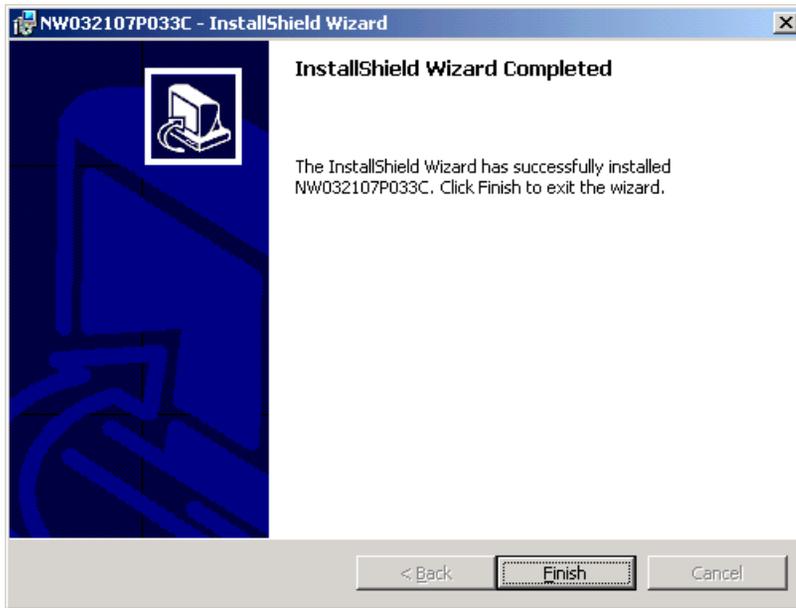


- 8 Click Install.

Result: The PEP installation begins.



Result: When installation is complete, the InstallShield Wizard Completed window appears.



Note: If the PEP installer detects that the PEP cannot be installed successfully, contact your Nortel Networks customer support representative for assistance.

PEP Utility

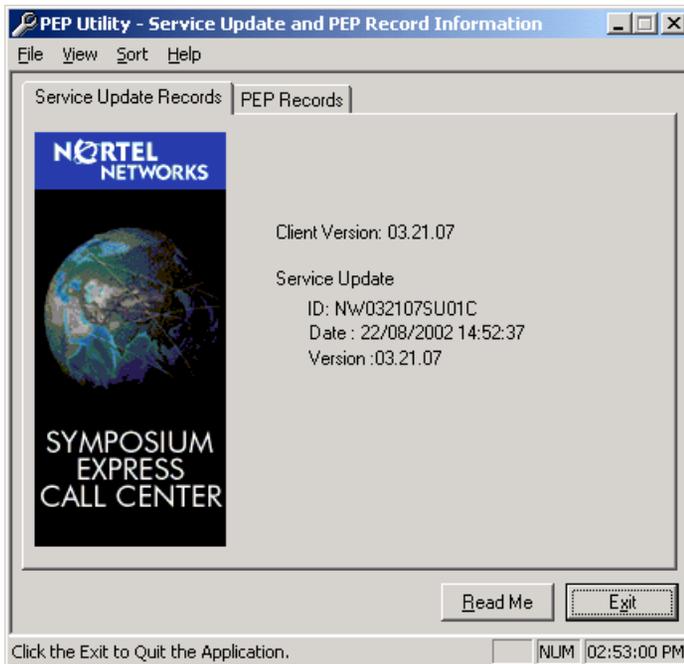
Introduction

To see which PEPs are installed on a Symposium Express Call Center Windows 2000/Windows XP client, use the PEP Utility.

To view PEPs

- 1 Start the PEP Utility by choosing, from the Windows Start menu, Programs → Symposium Express Call Center → PEP Viewer.

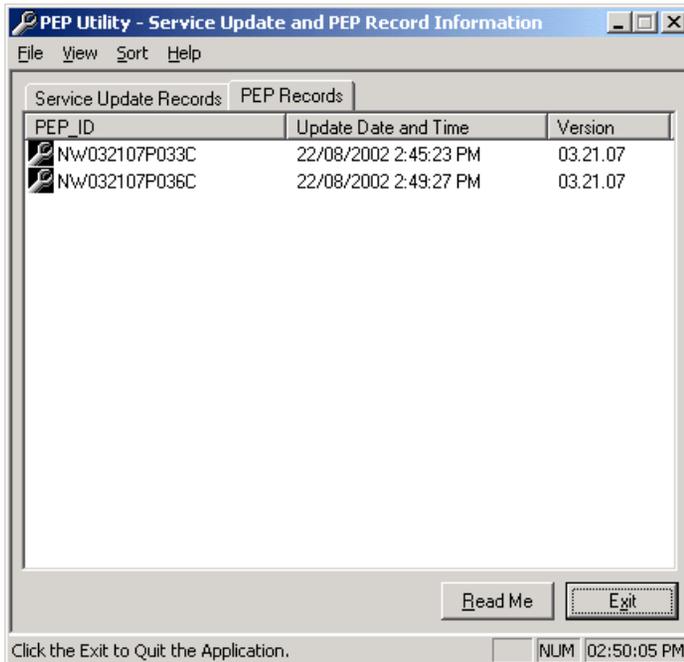
Result: The PEP Utility appears.



The current Client Version and details of any service updates that have been applied appear on the main window. In the window above, there is one Service Update installed on the system (NW032107SU01C).

- 2 To view the list of installed PEPs, click the PEP Records tab.

Result: The list of installed PEPs appears. (PEPs are shown for illustrative purposes only in this window. Service Updates are not listed here.)



- 3 To view the PEP read me file, select the PEP_ID, and click Read Me.

Uninstalling software PEP(s) from a Windows 2000/Windows XP client

ATTENTION

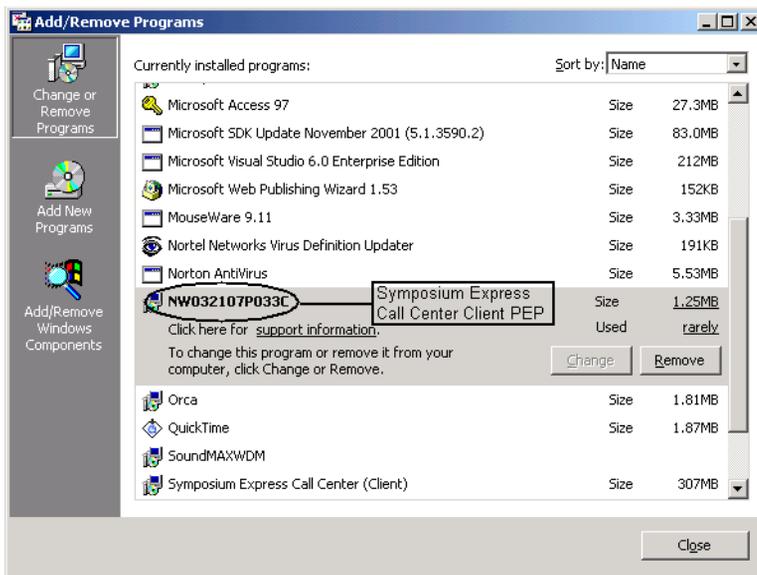
You must remove all PEPs prior to uninstalling the Windows 2000/Windows XP client software. See “Uninstalling client software from Windows 2000/Windows XP client PCs” on page 273.

To uninstall software PEPs

- 1 Log on to the client PC as **Administrator**. You must be logged on with an account that has local administrative privileges to uninstall PEPs.
- 2 From the start menu, choose Settings → Control Panel → Add/Remove Programs.

Result: The installed PEP appears in the list of currently installed programs.

Note: The contents of the list of currently installed programs will vary.



Note: If there are multiple PEPs installed on the system, you must remove them in the reverse sequence in which they were installed. For example, if the PEP install sequence is PEP 1, PEP 2, and PEP 3, the PEP removal sequence must be PEP 3, PEP 2, and PEP 1. If you try to remove a PEP out of the install sequence, you get an error message and the PEP removal is aborted.

- 3 Click the Remove option opposite the PEP name to uninstall the PEP.

Result: A confirmation dialog box appears, asking you to confirm if you are sure you want to proceed with the PEP uninstall.

- 4 Click Yes.

Result: The PEP Setup examines the system, and the PEP uninstall program dialog box appears. The selected PEP is uninstalled.

- 5 Repeat these steps for each PEP you want to uninstall.

Chapter 6

Post-installation

In this section

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Adding an SMI system	296
Connecting to the server	300
Setting the default printer	302
Logging off	303

Overview

Introduction

After you complete the installation of the server and client on the same PC, there are a number of tasks to complete to verify and safeguard your installation.

These include

- updating the emergency repair disk
- adding an SMI system
- checking the connection to the server
- setting the default printer
- logging off the system

Updating the emergency repair disk

Introduction

You must restart the server and update the emergency repair disk to record the latest configuration data for the server.

Note: This does not copy the latest NT SAM database (the security database). Consequently, the new accounts and passwords will not be copied. You should ensure that any passwords used originally in the installation (for example, the password for the Administrator account) are noted.

To update the emergency repair disk

- 1 From the Windows Start menu, choose Programs → MS-DOS Prompt.

Result: The MS-DOS Prompt window appears.

- 2 Insert the emergency repair disk into the floppy drive.

Note: If the disk is not available, insert a blank disk. The program formats the disk before it copies the configuration files.

- 3 At the command line, type **rdisk**, and then press Enter.

Result: The Repair Disk Utility window appears.

- 4 Click Update Repair Info.

Result: A configuration dialog box opens.

- 5 Click Yes.

Result: The utility copies the latest configuration data to the hard drive and you see the message `Saving Configuration`.

- 6 Click Create Repair Disk.

- 7 Follow the prompts to update the emergency repair disk.

Note: All existing data is erased when the configuration data is saved. If you are using a blank disk, the program formats it first, and then it copies the configuration data.

- 8 Close the MS-DOS window by typing **exit** and then pressing Enter.

- 9 Remove the emergency repair disk and store it in a safe place.

Adding an SMI system

Introduction

Use the SMI Workbench folder to add an SMI system for each server to which you want to connect from the client PC. When you double-click the system icon, 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 Symposium Express Call Center.

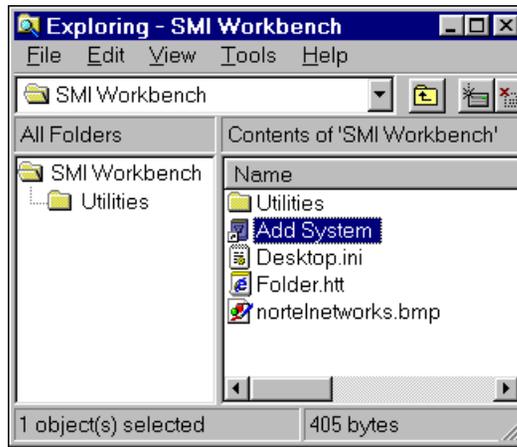
Using a dial-up connection to the server

Client PCs that are not on the same LAN as the server must use Dial-Up Networking to establish a network connection. For more information, refer to your Windows operating system documentation.

To add an SMI system

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

Result: The SMI Workbench folder appears.



- 2 Double-click Add System.

Result: The Add SMI System dialog box appears.

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

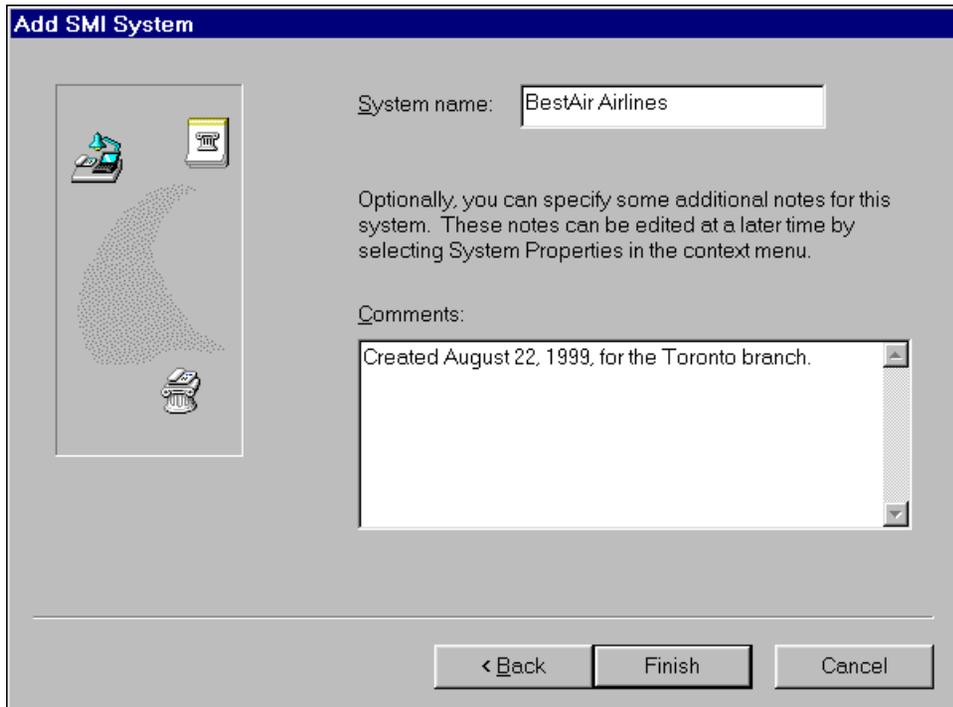
- 3 Enter the computer name or CLAN IP address of the server you want to access.

Note: If you are using a dial-up connection to the server, 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.
- 8 An SMI system is added to the SMI Workbench folder.

To add a desktop shortcut

- 1 From the Windows Start menu, choose Programs → SMI Workbench.
- 2 In the SMI window, right-click the icon for the Symposium Express Call Center site for which you want to create a shortcut.
- 3 Drag the cursor to your desktop, release the mouse button, and then choose Create Shortcut(s) Here from the context-sensitive menu.

Result: The shortcut for the system appears on your desktop.

Grouping SMI systems by site

Group SMI systems by site if the client PC is administering servers that are located in different locations.

To group SMI systems

- 1 Create subfolders in the SMI Workbench folder.
- 2 Name these subfolders by the site names.
- 3 Click and drag the SMI systems into the appropriate folders.

What's next?

Continue with “Connecting to the server” on page 300.

Connecting to the server

Introduction

Use this procedure to test connection to the Symposium Express Call Center server that has been configured.

Note: The first time you log on to the server, the End User Licence Agreement window appears. Only the system administrator (sysadmin) can accept this agreement. Therefore, sysadmin should be the first user to log on to the server.

Changing passwords

Note: The first time you connect to the server with a particular user ID, you must change the password for that user ID.

To connect to the server for the first time

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

Result: The SMI Workbench window appears.

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

Result: The Nortel Networks SMI Logon window appears.

- 3 Type **sysadmin** for the user ID.

- 4 Enter the password. (Contact your Nortel Networks representative for the password.)

Note: User IDs and passwords are case sensitive.

- 5 Click OK.

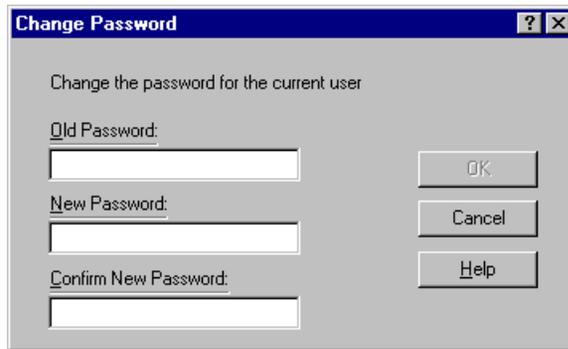
Result: The End User Licence Agreement window appears.

- 6 Click Accept.

Result: The Password Expiry dialog box appears.

- 7 Click Change Password.

Result: The Change Password dialog box appears.



- 8 For Old Password, enter the password that you used in step 4.
- 9 For New Password and Confirm New Password, enter the new password for the sysadmin user ID, and then click OK.

Result: The Symposium Express Call Center Administration window appears.

Note: If the IP address is incorrect or the link between the server and client is not available, you see the following message:

```
IP address is unreachable. Connection failed.
```

- 10 Click OK.
- 11 Check the IP address against the information in “Customer-supplied equipment and data checklist” on page 27.

Setting the default printer

Introduction

To print a scheduled report, a default printer must be set on the client PC on which the report schedule was created.

To set the default printer

- 1 From the Windows Start menu, choose Settings → Printers.
- 2 Right-click the printer on which the report is to be printed.
- 3 Select Set as default.

If the default printer is not set

If a default printer is not set, you will notice display errors in the background. In this case, spool the print jobs until the printer is available.

Logging off

Introduction

Use this procedure to log off from either Symposium Express Call Center or the server.

To log off from Symposium Express Call Center

- 1 In the Administration window, click Close.
- 2 Click Yes to confirm that you want to log off.

To log off the server computer

- 1 Press Ctrl+Alt+Delete.
Result: The Windows NT Security window appears.
- 2 Click Log Off.
- 3 Click OK in the dialog box to indicate that you want to end your Windows NT session.
Result: You are logged off the server.

Chapter 7

Using the configuration utilities

In this chapter

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Section B: Switch resource configuration	317
Section C: Configuring and importing data	337
Section D: Configuration report	347

Overview

Introduction

In addition to providing descriptions of the types of users in Symposium Express Call Center, this chapter provides the procedures to do the following tasks:

- Log on and log off the system.
- Use the Meridian 1 switch configuration parser to automatically configure Symposium Express Call Center with data from the switch.
- Import switch data to Symposium Express Call Center using the Import wizard.
- Run the Voice Services Configuration utility to import Voice Services card information into Symposium Express Call Center.
- Configure call center users, skillsets, agent assignments, and call presentation classes while offsite using offline mode.
- Import configuration data using the Import wizard.

Section A: Accessing the system

In this section

User types in Symposium Express Call Center	308
User access model	309
Logging on to Symposium Express Call Center	313
Logging off Symposium Express Call Center	315

User types in Symposium Express Call Center

Introduction

This section describes the types of users in the system and their access levels. Symposium Express Call Center requires that users log on by supplying their user ID and password. Each type of user has different system access levels. These access levels are set and cannot be changed.

User access model

Introduction

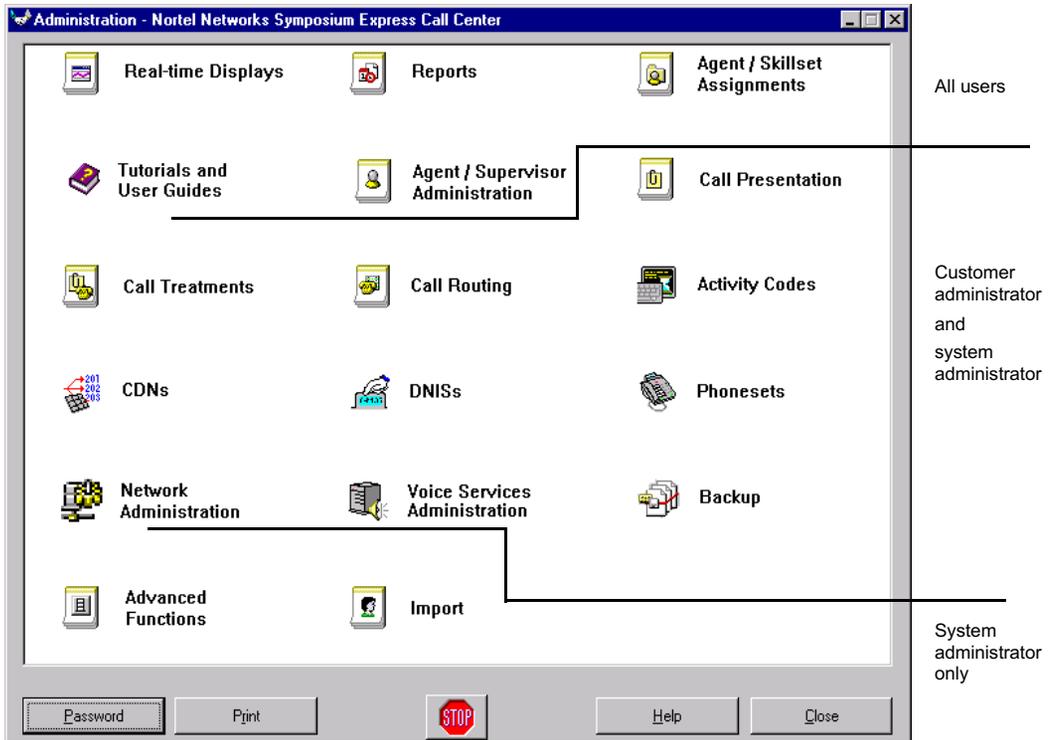
There are four types of users on Symposium Express Call Center:

- system administrator (user ID sysadmin)
- customer administrator (user ID custadmin)
- supervisors
- senior supervisors

Note: Agents do not have PC user IDs. They can only log on to their phonesets.

When you install Symposium Express Call Center, the system administrator and customer administrator are created automatically. You must add supervisors and senior supervisors individually.

The following illustration shows the functions that are available to each of these types of users:



System administrator

When you install Symposium Express Call Center, only the system administrator (sysadmin) can log on. This logon ID is intended for the distributor only.

The system administrator has access to every part of the Symposium Express Call Center system, including the Import wizard and Advanced Functions. The Advanced Functions icon on the Administration window accesses the system tree from Symposium Call Center Server Release 3.0.

Customer administrator

The customer administrator (custadmin) has access to all functions associated with the Administration window of Symposium Express Call Center except for the Import and Advanced Functions icons. Therefore, the customer administrator cannot update the switch resources of Symposium Express Call Center.

Supervisors

Supervisors on Symposium Express Call Center can do the following tasks:

- Run any report.
- Use real-time displays to view agents assigned to them.
- View and edit agent to skillset assignments for agents assigned to them.
- View all online tutorials.

Supervisors cannot see or access the following icons on the main window:

- Call Presentation
- Call Treatment
- Call Routing
- Activity Codes
- CDNs
- DNISs
- Phonesets
- Network Administration
- Backup
- Voice Services
- Import
- Advanced Functions

Supervisors cannot perform the following tasks:

- Add or remove either the agent or the supervisor attribute for any users.
- View the Alarm Monitor window.

- View Stop.

Senior supervisors

Senior supervisors can perform all tasks associated with a supervisor, as well as the following tasks:

- View all call center operations under the control of a specific supervisor.
- View the configuration properties of all agents in the call center, not only the agents assigned to them.

Logging on to Symposium Express Call Center

Introduction

You must have a user ID and password to log on to Symposium Express Call Center. To perform the tasks outlined in this guide, you must use the system administrator user ID and password.

The first time you log on to Symposium Express Call Center using a particular user ID, you must change the password for that user ID.

To log on to Symposium Express Call Center

- 1 From the Start menu, choose Programs → SMI Workbench, and then double-click the server icon in the SMI Workbench folder (or double-click the desktop shortcut, if one is available).

Note: If you do not have a desktop shortcut icon, refer to “Switch resource configuration” on page 317.

- 2 In the User ID box, type the user ID assigned to you.

Note: Your user ID must correspond to the level of configuration you want to perform.

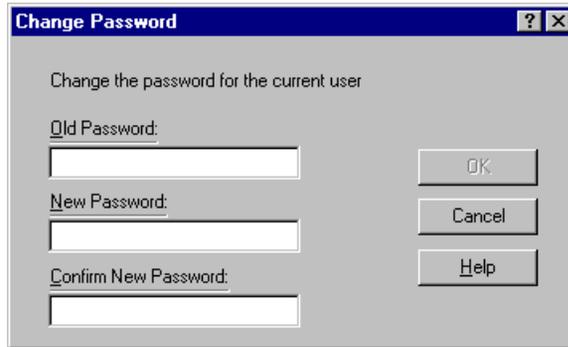
- 3 In the Password box, type the password assigned to you.

- 4 Click OK.

Result: If this is the first time you have used this user ID, the Password Expiry dialog box appears. Otherwise, the Administration window appears.

- 5 Click Change Password.

Result: The Change Password dialog box appears.



The image shows a Windows-style dialog box titled "Change Password". The dialog box has a blue title bar with a question mark icon and a close button (X). The main area is light gray and contains the text "Change the password for the current user". Below this text are three input fields: "Old Password:", "New Password:", and "Confirm New Password:". To the right of these fields are three buttons: "OK", "Cancel", and "Help".

- 6 For Old Password, enter the password that you used in step 3.
- 7 For New Password and Confirm New Password, enter the new password for the user ID, and then click OK.

Result: The Symposium Express Call Center Administration window appears.

Logging off Symposium Express Call Center

To log off Symposium Express Call Center

In the Administration window, click Close, and then click Yes.

Result: The window and all open real-time displays close.

Section B: Switch resource configuration

In this section

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Overview

Introduction

You must configure resources that are defined on the M1, M1 IE, or Succession CSE 1000 switch for Symposium Express Call Center. These resources include

- voice ports
- phonesets
- Voice Services voice ports (optional, if you have purchased the Voice Services feature)
- CDNs
- IVR ACD-DNs
- routes

Resource acquisition

Some resources—voice ports, phonesets, CDNs, IVR ACD-DNs, and routes—must be acquired from the switch so that the switch sends Symposium Express Call Center information about their status. In addition to adding these resources, you must then acquire them.

Ways to configure and acquire switch resources

There are two ways you can configure and acquire switch resources:

- Use the Import wizard provided with Symposium Express Call Center in the main application window.
- Manually configure and acquire switch resources as in Nortel Networks Symposium Call Center Server Release 3.0. For more information, refer to the Symposium Call Center Server Release 3.0 documentation.

Using the Import wizard to import switch data

Introduction

Symposium Express Call Center automates the process of configuring and acquiring switch resources on the call center system. Rather than manually enter configuration data for the phonesets, CDNs, IVR ACD-DNs, voice ports, Voice Services ports, and routes on the server, you can use the switch overlay programs to capture information about resources defined on the switch, and then use the Import wizard to copy this information to the server.

Note: The system administrator can also configure and acquire switch resources manually using the Advanced Functions. For information on using Advanced Functions, refer to the documentation for Nortel Networks Symposium Call Center Server Release 3.0 or the online Help.

Who can use the Import wizard

Only users with the system administrator password can access the Import wizard.

The process

To import switch resource data to Symposium Express Call Center, you must do the following tasks:

- Configure the M1, M1 IE, or Succession CSE 1000 switch for your Symposium Express Call Center installation.
- Use the Data Parser to determine switch settings. The Data Parser uses three overlay programs (LD 81, LD 21, LD 23) to download and save the switch data information to a file.
- Use the Import wizard from the Administration window of Symposium Express Call Center to set up and acquire the switch resources.

Rerunning the Import wizard

To modify switch resource data after it has been imported, run the Data Parser utility and Import wizard again. New changes are added to Symposium Express Call Center. You can omit data by simply not choosing the options when running the Import wizard.

Connecting to the switch and parsing the data

Introduction

Follow this procedure to log on to the switch and use overlay programs to download the M1, M1 IE, or Succession CSE 1000 switch resource configuration data. Three overlay programs are used:

- LD 81, which provides information about the phonesets (TNs) configured on the switch
- LD 21, which provides information on all routes and trunk types configured on the switch
- LD 23, which provides information about each CDN and ACD configured on the switch

For more information about the overlays, refer to the X11 documentation.

Who can use the overlay programs

A technician with access to the switch who knows the user ID and password can use the overlay programs to download the switch data.

Potential interference

The switch can be set up to send out intermittent maintenance messages. If any of these messages are transmitted during the data capture process, the import fails. To prevent interference from these messages, disable maintenance messages before you begin downloading resource data from the switch.

Before you begin

Before you begin to download configuration data from the switch

- ensure your PC is connected to the switch using terminal emulation software. The following table shows the required settings:

Emulation terminal and connection setup	Value
Baud rate	9600 kbits
Terminal type	VT100
Parity	8: 6 bits None: no parity
Stop bits	1
Flow control	None
Serial port	Com 1 or Com 2

- the M1, M1 IE, or Succession CSE 1000 switch should already be configured for Symposium Express Call Center

What you need

You need a disk on which to store the data from the switch. Alternatively, you can store the switch data locally and then copy it to the network.

To disable maintenance messages

- 1 Log on to a PC that has M1, M1 IE, or Succession CSE 1000 terminal emulation software (such as Reflections or HyperTerminal) installed, and that is connected to the switch.
- 2 Launch the terminal emulation software and establish a session with the switch.
- 3 Load Overlay 22 by typing **LD22** at the prompt.

- 4 Respond to the prompts as shown in the table. If a prompt appears that is not in the table, press Enter to accept the default value.

Prompt	Response	Description
REQ	prt	
TYPE	adan tty x	where x is the tty number from logon

Result: A list of parameters appears.

- 5 Make a note of all maintenance messages on the User parameter line. You must reenable them after printing the switch resources to a file.
- 6 Type **** to exit from the overlay.
- 7 Load Overlay 17 by typing **LD17** at the prompt.
- 8 Respond to the prompts as shown in the table. If a prompt appears that is not in the table, press Enter to accept the default value:

Prompt	Response	Description
REQ	chg	
TYPE	adan	
ADAN	chg tty x	where x is the tty number from logon
USER	type an x in front of all messages	Example: xmtc xtrf sbug

Note: Always leave at least one message enabled. Nortel Networks suggests that this message be the sch message, as it will not affect the parsing process.

- 9 Type **** to exit from the overlay, and then press Enter.
- 10 Log off the switch so that your changes take effect.

To get phoneset information

- 1 Create the text file in which the captured data will be stored.
Note: You can give the file any name, as long as it has a .txt extension.
- 2 Log on to a PC that has the switch terminal emulation software installed and is connected to the switch.
- 3 Launch the terminal emulation software, and establish a session with the switch.
- 4 Set the Capture to file feature on the terminal emulation application you are using, and select the name of the text file you created in step 1.
- 5 Load Overlay 81 by typing **LD81** at the prompt.
- 6 To capture the TNs (phonesets) that are configured as agents (AGN) and supervisors (SPV), respond to the prompts as shown in the table. If a prompt appears that is not in the table, press Enter to accept the default value:

Prompt	Response	Description
REQ	lst	List the phonesets
CUST	nn	Customer number
DATE		Current date
PAGE		
DES		
FEAT	agn	Agents
FEAT	spv	Supervisors
FEAT		

- 7 Type ******** to exit from the overlay.

To get Voice Services voice port information

Note: Voice Services is a keycoded feature. Follow this procedure only if you have purchased the Voice Services option and have installed and configured a Voice Services card on the switch.

- 1 Load Overlay 11 by typing **LD11** at the prompt.
- 2 Respond to the prompts as shown in the following table. If a prompt appears that is not in the table, press Enter to accept the default value:

Prompt	Response	Description
REQ	prt	
TYPE	2616	
TN		If your switch is an Option 11, enter the TN of the card. If you use any other type of switch, enter the loop/shelf/unit number of the card.

- 3 Type ******** to exit from the overlay.

To get voice port information

- 1 Load Overlay 81 by typing **LD81** at the prompt.
- 2 To capture the voice ports that are configured on the switch, respond to the prompts as shown in the table. If a prompt appears that is not in the table, press Enter to accept the default value:

Prompt	Response	Description
REQ	lst	
CUST	nn	Customer number
DATE		Current date
PAGE		
DES		
FEAT	vma	Voice Messaging
FEAT		

Note: This overlay program only recognizes voice ports configured as TNs on the switch. These may be required for either Meridian Mail or Meridian Mail ACCESS. When you use the Import wizard, you can exclude those voice ports.

- 3 Type ******** to exit from the overlay.

To get CDN information

- 1 Load Overlay 23 by typing **LD23**.
- 2 To capture CDNs that are configured on the switch, respond to the prompts as shown in the table. If a prompt appears that is not in the table, press Enter to accept the default value:

Prompt	Response	Description
REQ	prt	
TYPE	cdn	
CUST	nn	Customer number

Prompt	Response	Description
ACD		

- 3 Type **** to exit from the overlay.

To get IVR ACD-DN information

- 1 Load Overlay 23 by typing **LD23**.
- 2 To capture the IVR ACD-DNs that are configured on the switch, respond to the prompts as shown in the table. If a prompt appears that is not in the table, press Enter to accept the default value:

Prompt	Response	Description
REQ	prt	
TYPE	acd	
CUST	nn	Customer number
ACD		

- 3 Type **** to exit from the overlay.

To get route information

- 1 Load Overlay 21 by typing **LD21**.
- 2 To capture routes that are configured on the switch, respond to the prompts shown in the table. If a prompt appears that is not in the table, press Enter to accept the default value:

Prompt	Response	Description
REQ	prt	
TYPE	rdb	
CUST	nn	Customer number
ROUT		Route number

Prompt	Response	Description
ACOD		

- 3 Type **** to exit from the overlay.

To save the switch information

- 1 Stop the Capture to file feature.
- 2 Copy the text file to a disk or a location that is accessible from the server.

To reenale maintenance messages

- 1 Load Overlay 17 by typing **LD17** at the prompt.
- 2 Respond to the prompts as shown in the table:

Prompt	Response	Description
REQ	chg	
TYPE	adan	
ADAN	chg tty x	where x is the tty number from logon
USER	Remove x from messages	Example: USER mtc xtrf bug

- 3 Type **** to exit from the overlay.
- 4 Load Overlay 22 by typing **LD22** at the prompt.
- 5 Respond to the prompts as shown in the table. If a prompt appears that is not in the table, press Enter to accept the default value:

Prompt	Response	Description
REQ	prt	
TYPE	adan tty x	where x is the tty number from logon

Result: A list of parameters appears.

- 6 Verify that the USER parameter appears with the correct messages listed. If not, rerun Overlay 17 and fix the messages.
- 7 Log off the switch.

What's next?

Import the switch data to Symposium Express Call Center. For more information, see “Importing switch resource data” on page 330.

Importing switch resource data

When to use the Import wizard

Use the Import wizard to either add or update switch resource information on Symposium Express Call Center. You must be in online mode to use the Import wizard.

Who can use the Import wizard

To access the Import wizard, you must log on with the system administrator ID and password.

What you need

You need the disk or network location containing the text file into which you saved the switch information.

ATTENTION

When you run the Import wizard, it automatically configures and acquires all switch resources. This affects existing calls that are using those resources.

To import switch data

- 1 Log on to Symposium Express Call Center using the system administrator ID and password.
Note: Only the system administrator has access to the Import wizard.
- 2 Insert the disk containing the switch configuration data into the floppy drive.
- 3 From the Administration window, double-click the Import icon.
Result: The Open dialog box appears.
- 4 Select the file containing the switch configuration data, <username>.txt, and click Open.
Result: The Symposium Express Call Center Welcome window appears.

5 Click Next.

Result: The Terminal Number Configuration window appears.

Note: If no configuration data for phonesets (TNs), CDNs, or routes exists in the switch resource data file, the Import wizard aborts.

6 Select the TNs to add by clicking the TN number in the Exclude list, and then click the > button to move it to the Include list.

Tip: To add all items in the list, click the >> button.

Note: If you do not want to include a specific TN, leave it in the Exclude list.

7 Click Next.

Result: The Voice Port Configuration window appears.

8 Select the Meridian Mail or third-party Voice Ports to add to the Include list, and then click the > button.

9 Select the Voice Services Voice Ports to add to the Include list, and then click the > button.

Tip: You can click Back at any time to update choices made on previous windows.

10 Click Next.

Result: The Controlled Directory Number Configuration window appears.

11 Select the CDNs to add to the Local list, and then click the > button.

ATTENTION

Do not add a CDN if its number is zero (0). Symposium Express Call Center cannot use a CDN numbered 0.

12 Select the CDNs to add to the Network list, and then click the > button.

13 Click Next.

Result: If the configuration file contains IVR ACD-DNs, the IVR ACD-DN Configuration window appears. Continue with the following step.

If the configuration file does not contain IVR ACD-DNs, the Route Configuration window appears. Skip to step 16.

14 Select the IVR ACD-DNs to add to the Include list, and then click the > button.

15 Click Next.

Result: The Route Configuration window appears.

- 16 Select the routes to add to the Include list, and then click the > button.
- 17 Click Next.
Result: The Open Log File Automatically dialog box appears.
- 18 Click Yes or No, and then click Finish.
Result: A progress bar provides information on the process. When the import is complete, the log file opens in a Notepad window (if you clicked Yes in step 18).
- 19 View the session results in the log file.
- 20 Choose File → Exit to close the Notepad window, and then click OK to close the Configuration Manager window.

To check your setup

- 1 Run a configuration report from the Administration window.
- 2 Double-click the Advanced Functions icon, and open the switch resources to check that all resources are added and acquired.
- 3 In the System window, open Switch Resources and verify that all resources have been added and acquired.

What's next?

You can configure call presentation classes, users, and skillsets with the offline data importer. For more information, see “Configuring data in offline mode” on page 339, and the *Call Center Management Guide*.

After you configure call presentation classes, users, and skillsets, you should create call treatments, and then run the Call Routing wizard to define how calls are routed.

Run the Import wizard again if you need to make changes to the system.

Deleting switch resource data

Introduction

Follow this procedure to delete switch resource data from Symposium Express Call Center. This process also deacquires the resources that are removed, but it does not modify the Data Parser file or remove resources from the switch.

When to use the Import wizard

Use the Import wizard to remove (by updating) switch resource information on Symposium Express Call Center.

Who can use the Import wizard

To access the Import wizard, you must log on with the system administrator ID and password.

What you need

You need the disk that contains the text file into which you saved the switch resource data.

To delete switch data

- 1 Log on to Symposium Express Call Center using the system administrator ID and password.
Note: Only the system administrator has access to the Import wizard.
- 2 Put the disk containing the switch configuration data into the floppy drive.
- 3 In the Administration window, double-click the Import icon.
Result: The Open dialog box appears.
- 4 Select the file containing the switch configuration data, <username>.txt, and click Open.

- 5 Select the file containing the switch configuration data, <username>.txt, and click Open.
Result: The Symposium Express Call Center Welcome window appears.
- 6 Click Next.
Result: The Terminal Number Configuration window appears.
Note: If no configuration data for phonesets (TNs), CDNs, or routes exists in the switch resource data file, the Import wizard aborts.
- 7 Select the TNs to remove by clicking the TN number in the Include list, and then click the < button to move it to the Exclude list.
Tip: To remove all items in the list, click the << button.
- 8 Click Next.
Result: The Voice Port Configuration window appears.
- 9 Select the Meridian Mail or third-party voice ports to remove from the Include list, and then click the < button.
- 10 Select the Voice Services voice ports to remove from the Include list, and then click the < button.
Tip: You can click Back at any time to update choices made on previous windows.
- 11 Click Next.
Result: The Controlled Directory Number Configuration window appears.
- 12 Select the CDNs to remove from the Local list, and then click the < button to move them to the Exclude list.
- 13 Select the Network CDNs to remove from the Network list, and then click the << button to move them to the Exclude list.
- 14 Click Next.
Result: If the configuration file contains IVR ACD-DNs, the IVR ACD-DN Configuration window appears. Continue with the following step.
If the configuration file does not contain IVR ACD-DNs, the Route Configuration window appears. Skip to step 17.
- 15 Select the IVR ACD-DNs to remove from the Include list, and then click the < button.

16 Click Next.

Result: The Route Configuration window appears.

17 Select the Routes to remove from the Include list, and then click the < button.

18 Click Next.

Result: The Open Log File Automatically dialog box appears.

19 Click Yes or No, and then click Finish.

Result: A progress bar provides information on the process. When the import is complete, the log file opens in a Notepad window (if you clicked Yes in step 19).

20 Choose File → Exit to close the Notepad window, and then click OK to close the Configuration Manager window.

21 Run the Call Routing wizard to redefine how calls are routed.

22 Run the Import wizard again if you need to make changes to the system.

Section C: Configuring and importing data

In this section

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The offline data importer

Introduction

Symposium Express Call Center includes an offline data importer utility that allows you to work in offline mode on a client PC to configure users, skillsets, agent assignments, and call presentation classes. Data is then imported to the customer's system using the Import wizard.

This feature allows distributors to set up and test customer systems before going on-site, which reduces setup costs and time required to configure a system. You do not connect to a server while in offline mode.

The process

To configure Symposium Express Call Center using the offline data importer and Import wizard, you must perform the following tasks:

1. Access the Symposium Express Call Center client application in offline mode.
2. Set up call presentation classes, supervisors and senior supervisors, agents, and skillsets on the system.
3. Assign agents to skillsets.
4. Exit from Symposium Express Call Center, and save the information.
5. Log on to the customer system using the system administrator ID and password, and use the Import wizard to load the data.

You can use the Import wizard on a Symposium Express Call Center that already has data loaded. The Import wizard will not modify or overwrite existing data. The Import wizard only adds new information.

Configuring data in offline mode

Introduction

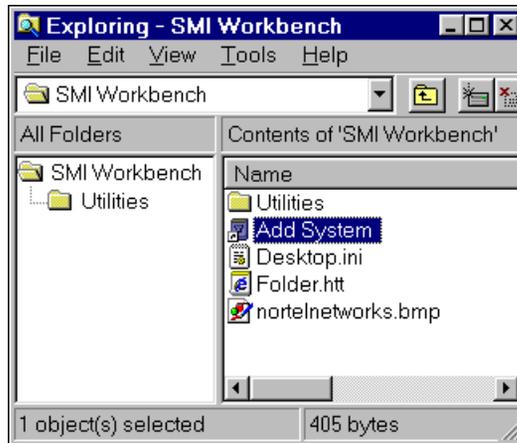
As part of the process of configuring Symposium Express Call Center, you must do the following:

- Define ways that calls are presented to agents.
- Add supervisors and agents.
- Create skillsets.
- Define agent to skillset assignments.

To configure data in offline mode

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

Result: The SMI Workbench folder appears.



- 2 Double-click Add System.

Result: The Add SMI System dialog box appears.

The SMI System resides on a specific server.
Specify the computer name or IP address of the server:

If connected:

Verify address

Details retrieved from the server:

Contact name:

Location:

< Back Next > Cancel

- 3 For the computer name or CLAN IP address, type **0.0.0.0**, and then click Next.

Result: The Add SMI System window appears.

- 4 Enter the system name.
- 5 Optionally, enter notes or comments that describe this SMI system.
- 6 Click Finish.

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

- 7 Run Symposium Express Call Center in offline mode by double-clicking the new icon.

Result: The Symposium Express Call Center Administration window appears with the following icons visible:

- Agent/Supervisor Administration
- Agent/Skillset Assignments
- Call Presentation

- 8 From the Symposium Express Call Center Administration window, double-click the icon for the data you want to configure.

Result: A message appears stating that a new offline session is beginning, and then the appropriate window appears.

- 9 Set up the call presentation classes, supervisors, agents, and skillsets as required.

- 10 Click Close, and then click Yes.

Result: Your additions are automatically saved in a text file, gnortel.txt, in the directory C:\nortel\en\client\data\ (where C: is the drive on which the client is installed).

ATTENTION

Do not modify the gnortel.txt file. A specific format is required for the Import wizard.

What's next?

Import the data to the customer's system. For more information, see "Importing configuration data" on page 342.

Importing configuration data

Introduction

Follow this procedure to import the user, skillset, agent to skillset assignment, and call presentation classes configuration data to Symposium Express Call Center.

When to use the Import wizard

You use the Import wizard to add data to the Symposium Express Call Center database.

Who can use the Import wizard

You must log on with the system administrator ID and password to access the Import wizard.

To import switch data

- 1 Log on to Symposium Express Call Center using the system administrator ID and password.

Note: Only the system administrator has access to the Import wizard.

- 2 In the Administration window, double-click the Import icon.

Result: The Open dialog box appears.

- 3 Select the file containing the configuration data, gnortel.txt, and then click Open.

ATTENTION

Do not modify the gnortel.txt file. A specific format is required for the Import wizard.

Result: The Configuration Manager window opens and adds the data to the Symposium Express Call Center database. A progress bar provides information on the process.

Note: Users are added in the following order: supervisor-only users (including senior supervisors), supervisors who are also agents, and then agent-only users. Any agent/supervisor relationships are maintained.

- 4 Optional. View the log file to see what changes have been made.

You can find the log file in the directory C:\nortel\client\en\data\gnortel.log (where C: is the drive on which the client is installed).

- 5 Choose File → Exit to close the Notepad window.

What's next?

Check your configuration by printing a configuration report. See “Printing a configuration report” on page 349.

Configuring phoneset displays

Introduction

Phoneset displays allow you to configure the field labels as they appear on the phoneset LCD display. You must configure phoneset displays from the Advanced Functions feature of the Administration window. This icon is not available to customer administrators.

Note: The configuration applies to all phoneset displays of the phoneset type. For example, if you configure a 1x16 alphanumeric phoneset, the configuration applies to all phonesets of that type.

Before you begin

Before you configure the phoneset display, ensure that the phoneset type is configured on the switch.

For more information, refer to the *Nortel Networks Symposium Call Center Server Symposium, MI, and Voice Processing Guide*, Release 3.0.

To configure a phoneset display

- 1 Log on to Symposium Express Call Center as the system administrator.
- 2 From the Administration window, double-click the Advanced Features icon.
- 3 From the SMI Workbench, choose Switch Administration → Phoneset Displays.

Result: The Phoneset Displays window appears.



- 4 Select the phoneset display type you want to change.

Note: This phoneset display type must be configured on the M1, M1 IE, or Succession CSE 1000.

- 5 Choose File → Properties.

Result: The Phone Set Display Properties dialog box appears.

The screenshot shows a dialog box titled "1 X 24 and 1 X 18 Alphanumeric - Phone Set Display Prop...". It has two tabs: "Row 1" and "Row 2". Under "Add a field:", there is a dropdown menu and an "Add..." button. Below that, a section titled "Display fields as they appear on Phoneset" contains a list box with "Skillset Name" and "CLID Number". There are "Move Left", "Move Right", and "Remove" buttons. A "Selected Display Field" section shows "Field: Skillset Name", "Field Label: Skillset", and "Field Width: 16 (number of characters)". At the bottom, "Total" is 20 and "Maximum" is 24. "OK", "Cancel", and "Help" buttons are at the bottom.

- 6 If the display has more than one row, click the property page tab of the row you want to change.
- 7 From the Add a field drop-down list, select the field to be added to the display.
- 8 Click Add.

Result: This adds the field to the Display fields as they appear on Phoneset box.

9 Do you want to change any of the settings assigned to the field?

IF you	THEN
want to change the label assigned to the field	<p>a. from the Display fields as they appear on Phoneset box, select the field for which you want to change the label.</p> <p>b. in the Field Label box, enter the new label.</p>
want to change the field width	<p>a. from the Display fields as they appear on Phoneset box, select the field you want to resize.</p> <p>b. in the Field Width box, enter or select the new size.</p>
want to change the order of fields as they appear on the display	<p>a. from the Display fields as they appear on Phoneset box, select the field you want to move.</p> <p>b. position the field using the Move buttons.</p>
do not want to change any of the settings	go to step 12.

- 10** Repeat steps 7 to 9 for each field that you want to add to this row for this phoneset display type.
- 11** Repeat steps 6 to 8 for each row that you want to configure for this phoneset display type.
- 12** Click OK to complete the procedure.

Result: The status of the display type in the Phoneset Displays window changes to Configured.

Section D: Configuration report

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Overview

Introduction

You can create a configuration report that lists all configuration data. The configuration report supplies data on

- supervisor properties
- senior supervisors
- agent properties
- agent skillsets
- skillset properties
- route properties
- IVR ACD-DN properties
- voice port properties

You can preview, print, or export this report to another application.

Printing a configuration report

Introduction

When you finish configuring a customer's system, you can run a configuration report to confirm your settings and to keep as a record for future reference. You can also save the report to a file such as HTML or export it to another program such as Excel.

Who can use the configuration report

Any Symposium Express Call Center user can use this report.

To print the configuration report

- 1 Log on to Symposium Express Call Center.
- 2 In the Administration window, click Print.
Result: The Configuration report appears.
- 3 Click the printer icon.
Result: The Windows Print dialog box appears.
- 4 Set the print options, and then click OK.

Chapter 8

Configuring a Voice Services card

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Overview

Introduction

A Voice Services card installed in the M1, M1 IE, or Succession CSE 1000 switch provides front-end voice processing capability to Symposium Express Call Center. It also enables you to provide comfort messages and voice menu capabilities to a call center. The Voice Services card provides similar functionality to Meridian Mail and MIRAN; however, the Voice Services card enables you to play recorded announcements and voice menu options so that you can collect customer-entered data. As with Meridian Mail and MIRAN, you can also use Voice Services to determine a caller's position in queue and the expected wait time before the call is answered. You can then use that information to determine how the call is treated. In addition, you can collect customer-entered data in the form of digits entered through phoneset keys. You can also use that data to determine how the call is treated.

Optional features

All features described in this section are optional, keycoded features. Voice Services, Digit collection, Position in Queue, and Expected Wait Time are available only if you have purchased these options.

Before you begin

For information on the installation and the initial configuration of the Voice Services card, refer to the *Symposium Express Call Center Voice Services Card Installation Guide*, Release 3.0.

After you install the Voice Services card

After you install the Voice Services card on the switch, and perform the initial configuration as described in the *Symposium Express Call Center Voice Service Card Installation Guide*, you must perform the following tasks to configure the card on the server, and to play messages:

1. Add the Voice Services voice ports to Symposium Express Call Center. See “Adding Voice Services voice ports to Symposium Express Call Center” on page 356.
2. Save the Voice Services card configuration information from the M1, M1 IE, or Succession CSE 1000 switch into a text file, and then run the Voice Services Configuration Utility to import the information into Symposium Express Call Center. See Section B: “Running the Voice Services configuration utility” on page 361.
3. Use the Symposium Express Call Center client to record comfort messages, voice menus, and voice segments, if required. Refer to the *Symposium Express Call Center Management Guide*, Release 3.0.
4. Create call treatments. When you create call treatments, you specify which announcements and voice segments to play, and when to play them.

For more information about configuring voice segments and creating call treatments, refer to the *Symposium Express Call Center Management Guide*, Release 3.0.

Section A: Setting up the Voice Services card

In this section

Adding Voice Services voice ports to Symposium Express Call Center	356
Migrating the Voice Services card to a new switch	360

Adding Voice Services voice ports to Symposium Express Call Center

Introduction

Each Voice Services port available on the Voice Services card that you use to provide functionality to Symposium Express Call Center must be added and acquired in Symposium Express Call Center.

Note: Voice Services ports are not added automatically as voice ports by the Symposium Express Call Center import utility, as are other voice ports (for example Meridian Mail voice ports). You can use the Voice Services configuration utility to get the Voice Services port information into Symposium Express Call Center. However, the Voice Services ports will not be added as Voice Ports; you must do this manually.

You do not need to acquire Voice Services voice ports to record and play prompts on the initial setup. It is only if you want Symposium Express Call Center to play prompts using the Voice Services card that Symposium Express Call Center must acquire the voice ports.

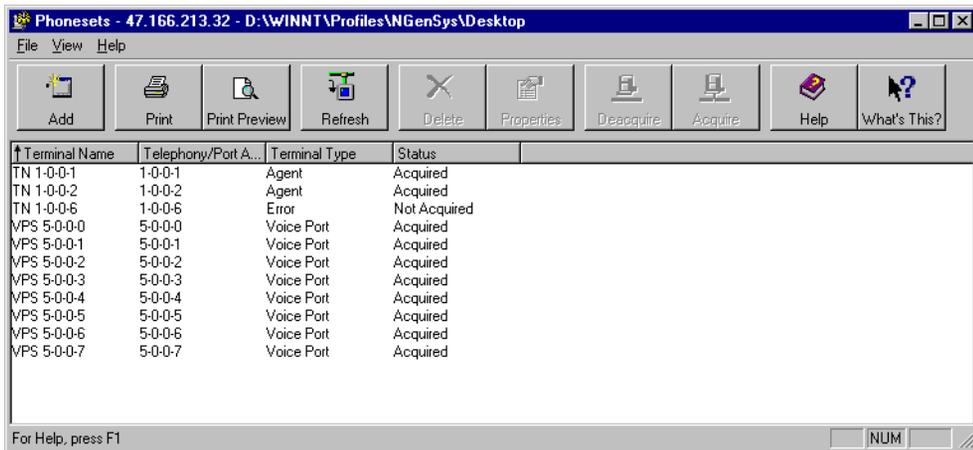
Once Voice Services ports are added or changed, it may be necessary to add or change the matching voice port configuration information in Symposium Express Call Center.

To add a Voice Services voice port

Perform this procedure if you are going to use the Voice Services card to play Symposium Express Call Center-controlled announcements. If you are using the Voice Services card only to front-end the call center, you do not need to perform this procedure.

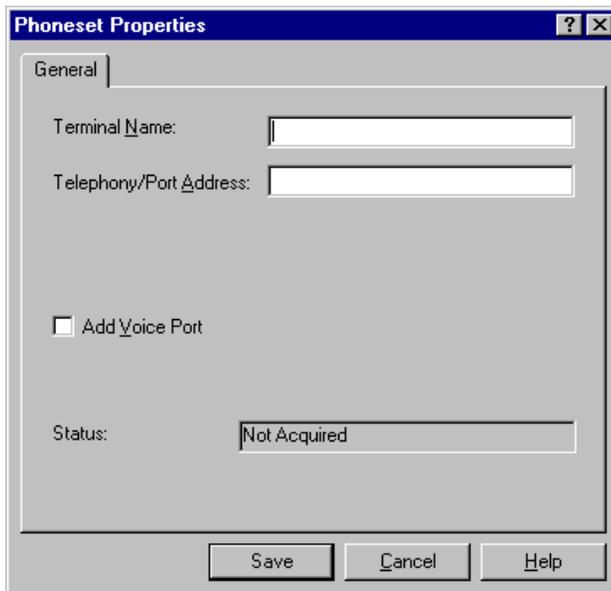
- 1 In the Administration window, click Phonesets.

Result: The Phonesets window appears.



- 2 Click Add.

Result: The Phoneset Properties dialog box appears.



- 3 Enter the Terminal Name and Telephony/Port Address of the voice port.
- 4 Select Add Voice Port.
- 5 Click Save.
- 6 In the Administration window, click Advanced Functions.

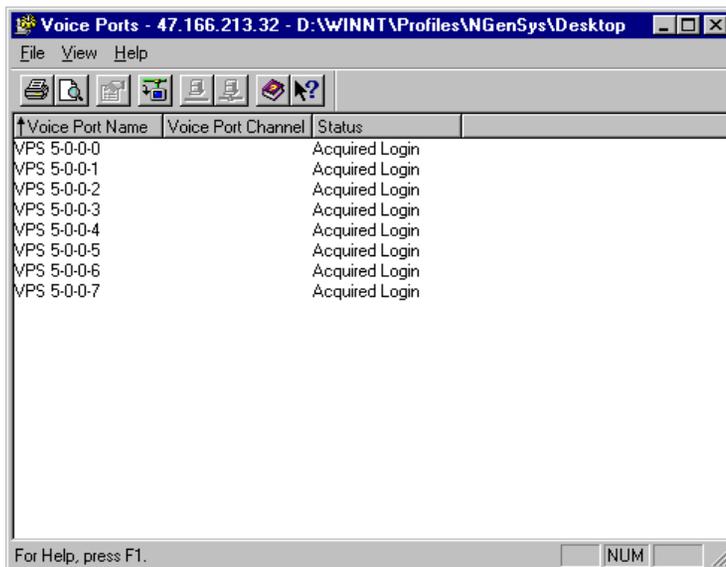
Note: You must have sysadmin access privileges to do this.

To acquire the port as a voice port

Each voice port that you add in the previous procedure must be acquired in Symposium Express Call Center.

- 1 Click Switch Administration.
- 2 Double-click Voice Ports.

Result: The Voice Ports dialog box appears.



- 3 Select the Voice Port that you just added, and then click Acquire (the third icon from the right).
- 4 Click Refresh (the fourth icon).

Result: The Status changes to Acquired Login or Acquired Logout.

What's next?

To use Voice Services, you must also run the Voice Services configuration utility. Refer to “Running the Voice Services configuration utility” on page 361.

The next step is to record and configure the voice services treatments in Symposium Express Call Center. To do this, you must use the Symposium Express Call Center client (double-click the Voice Services Administration icon in the main Administration window). Finally, you create call treatments. When you create call treatments, you specify which announcements and voice segments to play, and when to play them.

For more information on recording voice services treatments and setting up call treatments, refer to the *Symposium Express Call Center Management Guide*.

Migrating the Voice Services card to a new switch

Introduction

Follow this procedure after you have completed moving Symposium Express Call Center to the new switch.

To migrate the Voice Services card to a new switch

- 1** Reseat the Voice Services card in the new switch. For instructions, refer to the *Nortel Networks Symposium Express Call Center Voice Services Card Installation Guide*, Release 3.0.
- 2** Configure the new Voice Services ports. For instructions, refer to the *Nortel Networks Symposium Express Call Center Voice Services Card Installation Guide*, Release 3.0.
- 3** Import the Voice Services card information from the switch. For instructions, refer to “To collect Voice Services card information from the switch” on page 364.
- 4** Run the Voice Services Configuration Utility to change the Voice Services card properties. For instructions, refer to “To run the Voice Services Configuration Utility” on page 365.

Section B: Running the Voice Services configuration utility

In this section

Overview	362
Importing Voice Services card information	364

Overview

Introduction

Run the Voice Services Configuration utility to import Voice Services configuration data into Symposium Express Call Center. Run the utility whenever you add, make a change to, or remove a card.

If you did not purchase the Voice Services option, you do not need to perform the procedures in this section.

Before you begin

Before you run the Voice Services Configuration utility, you must ensure that

- the Voice Services card is installed and configured on the switch
- the Symposium Express Call Center server and client software are installed
- you have run the import utility from the client with sysadmin access privileges to import switch resource information (TNs, voice ports, CDNs, IVR ACD-DNs, and routes) into Symposium Express Call Center

Note: By using the Import wizard, Voice Services voice ports are added as agent sets, not as voice ports. For this reason, it is best to run the Import wizard before configuring the Voice Services resources, and then add the Voice Services voice ports manually. However, if you ran the Import wizard before configuring the Voice Services resources, you must manually delete the Voice Services voice ports (added as agent sets), and then add them again as voice ports. For more information, refer to “Adding Voice Services voice ports to Symposium Express Call Center” on page 356.

Information you need

To add a card, you must know the following information:

- card name
- IP address of the card
- keycode information

- the default DN

Importing Voice Services card information

To collect Voice Services card information from the switch

- 1 Log on to the M1, M1 IE, or Succession CSE 1000 switch from a PC with terminal emulation software (such as Reflections or HyperTerminal) installed, and that is connected to the switch.
- 2 Launch the terminal emulation software, and establish a session with the switch.
- 3 Start the Capture to file feature. (For example, if you use HyperTerminal, choose Transfer → Capture Text, create the text file, and then click Start.)
- 4 Load Overlay 11 by typing **LD 11** at the prompt.
- 5 Respond to the prompts as shown in the table. If a prompt appears that is not in the table, press Enter to accept the default value:

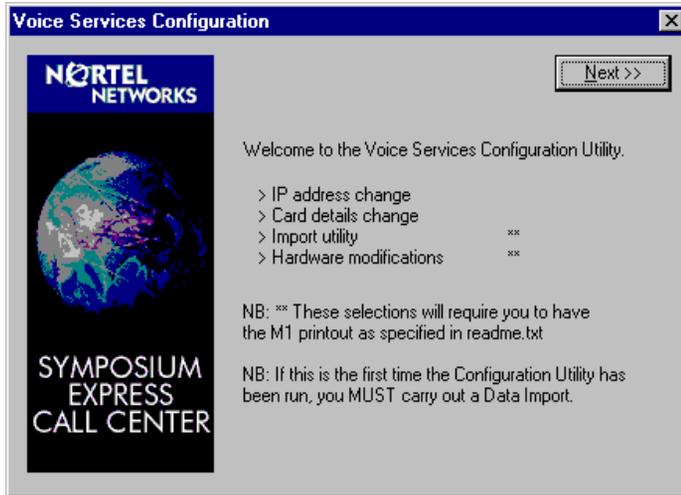
Prompt	Response	Description
REQ	PRT	
TYPE	2616	
TN	xx xx xx	If your switch is an Option 11, enter the slot number of the card. If you use any other type of switch, enter the loop/shelf/card number of the card.

- 6 Stop the Capture to file feature after LD 11 has finished its print to screen.
- 7 Copy the text file to a disk or a location that is accessible from the server.

To run the Voice Services Configuration Utility

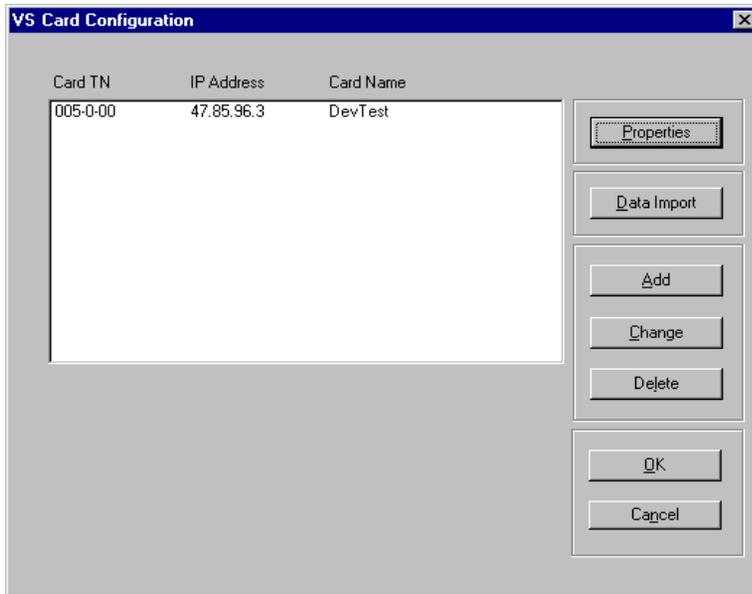
- 1 Log on to the Symposium Express Call Center server using the system administrator user ID.
- 2 From the Windows Start menu, choose Programs → Symposium Express Call Center → Voice Services → Configuration.

Result: The Voice Services Configuration dialog box appears.



3 Click Next.

Result: The VS Card Configuration dialog box appears.



4 What do you want to do?

IF you want to

THEN refer to

view or change the properties for a Voice Services card

“To view or change the properties for a Voice Services card” on page 368.

import TN (virtual phoneset) data

“To import data” on page 369.

add a Voice Services card to the system

“To add a Voice Services card to the system” on page 370.

change Voice Services card properties

“To change Voice Services cards” on page 370.

remove a Voice Services card from the system

“To remove a Voice Services card from the system” on page 371.

What's next?

After you import the Voice Services configuration data, use the Symposium Express Call Center client to record and configure voice segments. Then, create call treatments. For more information, see the *Call Center Management Guide*.

TAPI server

Note: The Prompt/Collect Digits feature will only be available in a future release of Symposium Express Call Center.

If you configure prompt/collect digits Voice Services treatments, you must install the Nortel Networks TAPI server and complete these procedures:

- Check the license file to ensure the TAPI_IVR feature is enabled to support digit transfer from the Symposium Express Call Center Release 3.0 server to the TAPI server. See below to check the TAPI license file.
- Set the Symposium Express Call Center server IP address. See “To set the IP address on TAPI” below.

To check the license file

- 1 To launch the FlexLM Manager from the Windows Start menu, choose Programs → Nortel → Symposium TAPI SP for M1 → FlexLM Manager.
- 2 Click License tab.
- 3 Click Show license file.

Result: If the TAPI_IVR feature is enabled, the following line is included in the file: Feature TAPI_IVR.

To set the IP address on TAPI

- 1 To launch the database configuration utility from the Windows Start menu, choose Programs → Nortel → Symposium TAPI SP for M1 → Configure Database.
- 2 Select the Host tab.

- 3 Enter the Symposium Express Call Center IP address in the Host Address entry field.

For more information, see the *Nortel Networks Managers Guide for the Symposium TAPI Service Provider for Meridian*.

To view or change the properties for a Voice Services card

Note: The Prompt/Collect Digits feature will only be available in a future release of Symposium Express Call Center.

You change the properties of a Voice Services card in the Voice Services Properties dialog box. To use the prompt/collect digits feature, you must have Symposium TAPI Service provider installed, and Symposium Agent or another agent software that is compatible with Symposium TAPI Service provider. For more information on installing and configuring TAPI Service provider and Symposium Agent, see

- *Network Managers Guide for the Symposium TAPI Service Provider for Meridian 1*
- *Nortel Networks Symposium Agent Installation Guide*

- 1 Continue from step 3 in “To run the Voice Services Configuration Utility” on page 365 by selecting the card, and then click Properties.

Result: The VS Card Properties dialog box appears.

VS Card Properties

Card Name: Lab Test

IP Address: 192.122.46.41

Keycode: 663121156067206751135450

TAPI Server IP Address: 47.166.213.31

TAPI Port Address: 5000

Default DN

None

DN 0

OK

Cancel

Advanced

- 2 Change the card name, IP address, or keycode number as necessary. The keycode number must be entered in three groups of eight digits with a space separating each group (for example, 11111111 22222222 33333333).
- 3 To enable the Prompt/Collect Digits option, click the TAPI Server box and enter the TAPI Server IP Address and the TAPI Port Address.

Note: The TAPI server IP address represents the CLAN IP address of the TAPI server. The Prompt/Collect Digits feature will be available only in Symposium Express Call Center Release 4.2 and later.

- 4 In the default DN section, enter a valid DN. In the event of treatment failure, the caller is transferred to this DN.

Note: If no default DN or an invalid number is supplied, the caller is disconnected.

- 5 Click OK.

Note: The Advanced button is for Nortel Networks Product Support use only.

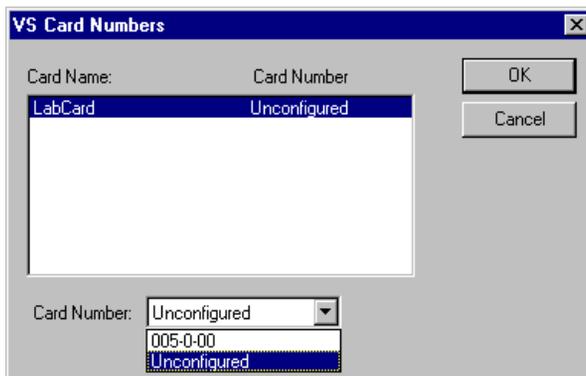
To import data

- 1 Continue from step 3 in “To run the Voice Services Configuration Utility” on page 365 by clicking Data Import.

Result: The Open dialog box appears.

- 2 Navigate to the text file that contains the phoneset information you downloaded in “To collect Voice Services card information from the switch” on page 364, and then click Open.

Result: The VS Card Numbers dialog box appears.



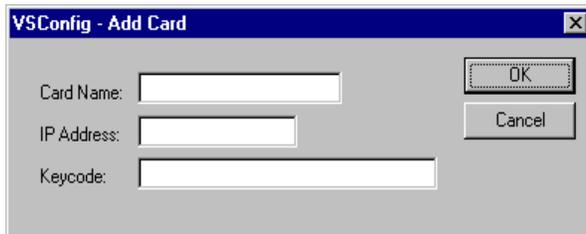
- 3 Select the card and pick the card number from the Card Number drop-down list.
- 4 Click OK.

Result: The card number is updated, and the database is populated with ACD/TN information for the card.

To add a Voice Services card to the system

- 1 Continue from step 3 in “To run the Voice Services Configuration Utility” on page 365 by clicking Add.

Result: The VSConfig - Add Card dialog box appears.



- 2 Enter the card name, IP address, or keycode number as necessary.
- 3 Click OK.

Result: The new card appears in the list.

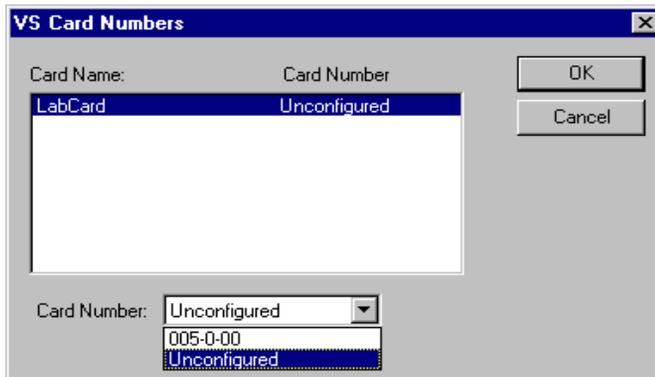
To change Voice Services cards

- 1 Continue from step 3 in “To run the Voice Services Configuration Utility” on page 365 by clicking Change.

Result: The Open dialog box appears.

- 2 Navigate to the text file that contains the phoneset information you downloaded in “To collect Voice Services card information from the switch” on page 364, and then click Open.

Result: The VS Card Numbers dialog box appears.



- 3 Select the card and pick the card number from the Card Number drop-down list.
- 4 Click OK.

Result: The card number is updated, and the database is populated with ACD/TN information for the card.

To remove a Voice Services card from the system

- 1 Continue from step 3 in “To run the Voice Services Configuration Utility” on page 365 by selecting the card you want to remove, and then click Delete.
- 2 Click Yes to confirm that you want to remove the card.

For information on configuring Voice Services, call treatments, and routing, refer to the *Symposium Express Call Center Management Guide*, Release 3.0.

Chapter 9

Tools and troubleshooting

In this chapter

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Overview

Introduction

This chapter contains

- a description of the server and client utilities
- some guidelines on how to troubleshoot your installation

Server SysOps utilities

Introduction

Nortel Networks provides Server SysOps utilities to assist with various procedures on Symposium Express Call Center. You can find these utilities on the server.

Server SysOps utilities

The following Server SysOps utilities are available from the Start menu under Programs → Symposium Express Call Center:

- DMI_VIEW (client)
- Client Uninstall
- Computer Name Synch
- Configuration
- Database Restore
- DMI_VIEW (server)
- Feature Report
- NCC Reports Removal
- Registry Maintenance
- Server Uninstall
- Shutdown
- StartupSystem Information

SysOps functions

Client DMI_VIEW

Displays the PEPs installed on the client.

Client Uninstall

Uninstalls the Symposium Express Call Center client.

Computer Name Sync

Synchronizes Symposium Express Call Center and the current computer name if the computer name changes after the installation of Symposium Express Call Center. The new computer name must be a single word without spaces between the characters. To use this utility, first change the new computer name in Windows NT using Control Panel → Networks, and restart the server. Run this utility to change the name for Symposium Express Call Center. The utility adjusts the sql.ini file used by other Symposium Express Call Center components. Restart the server after using this utility.

Configuration

Displays configuration information with tabs for the following:

- **Local Machine Settings** Local site name and network card IP addresses.
- **Address Table** A list of IP addresses for the server.
- **Site Table** A list of site names and IP addresses.

Use this window to make changes to the IP addresses for the CLAN and ELAN adapter cards if you made an error during installation.

Note: You must shut down services to change the IP addresses.

Database Restore

Restores a corrupted database. This utility restores the backed-up version of the database created using the backup utility with the database option.

DMI_VIEW

Shows the list of PEPs installed on your server.

Feature Report

Displays system information and a list of installed features. Tabs provide information for the following:

- **System** Information entered at installation, including computer name, IP addresses, and site name. This tab contains read-only information. Use the Configuration utility to make changes.
- **Switch Information** Name, IP address, customer number, and switch type. From this page, you can change any switch parameter at any time. All changes are updated in the registries as well as in the database.

- **Features** Keycode, serial number, list of features and values (YES = installed).
- **Display Languages** Number of languages allowed.
- **Voice Prompt Languages** Number of languages allowed.

Registry Maintenance

Performs a registry comparison between two remote computers, a remote and a local computer, or two subkeys on the local computer.

The comparison picks up any difference between the two registry entries, such as values with the same name but different data, and values/subkeys that exist on one registry but not on the other. The following filtering options are available:

- **Registry Error Detection** This option compares 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 can be edited and customized to have a range of accepted values for certain keys instead of fixed values.
- **Registry Dump** This option recursively dumps the structure of the registry starting from a given subkey. This option is an easy way to generate an initial input file for the detection option.

This utility also has backup and restore capabilities.

Server Uninstall

Removes the Symposium Express Call Center server software.

Shutdown

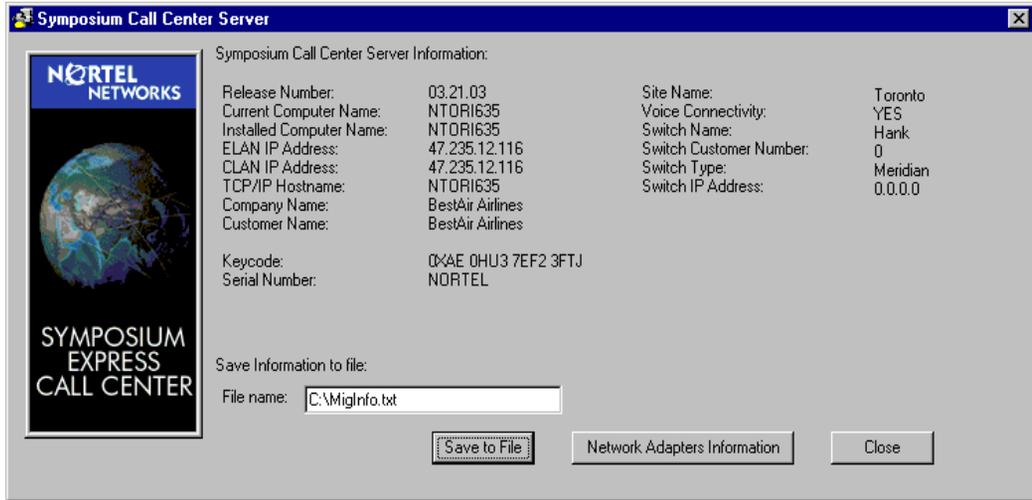
Shuts down Symposium Express Call Center services. This utility informs the user about the state of each service and describes each action taken by the utility. At the end, the utility provides general information on whether the system is completely shut down and provides appropriate messages if there are services that cannot be shut down for some reason. The utility also reports any errors encountered during execution of the shutdown.

Startup

Starts up the Symposium Express Call Center services again after services have been stopped. Startup can be used whenever needed.

System information

Use this utility to view detailed Symposium Express Call Center system and network adapter information.



Troubleshooting installation problems

Introduction

Use this section to determine why errors occur during installation and how to resolve them. Information about M1 patches is available on the MPL web site at <https://www21.nortelnetworks.com/MPL> (for Europe), or from <https://www43.nortelnetworks.com/MPL> (for North America).

Server will not install

Ensure that the client software is not already installed on the server PC.

Client will not install

The client software installation fails if an application using a different version of the ODBC drivers is already installed on the client PC. Uninstall the application.

Keycode is not accepted

If the keycode contains a string of wide characters (such as “www”), you may not be able to enter the fourth character in the keycode. To resolve this problem, create a keycode file on a removable disk, and load this file during installation.

To create and load a keycode file

- 1 Log on to Windows NT.
- 2 From the Start menu, choose Programs → Accessories → Notepad.
- 3 Enter the following information in the new file:

```
key1 key2 key3 key4  
nnnnnn
```

where *key1* to *key4* are components of the keycode (separated by spaces) and *nnnnnn* is your Meridian 1 system ID.

Note: To determine the switch serial number, use the REQ TID command in LD 22. On the Options 51C, 61C, 71C, and 81C, the keycode is

generated against the System ID, but on the Option 11C, the keycode is generated against the Auxiliary ID.

- 4 Insert a disk in your floppy disk drive.
- 5 Choose File → Save.
- 6 Save the file as **keycode.ntk** on the disk.
- 7 Run the Setup program again to install the server software. (Refer to Chapter 3, “Server software,” for detailed instructions.)
- 8 When you are prompted for a keycode, in the Load from disk section, enter the path to the keycode file (for example, a:\keycode.ntk).
- 9 Click Load.
- 10 Click Next to continue the installation.
- 11 When the installation is complete, store the keycode disk in a secure place.

No shortcuts were created in the Start menu

Application shortcuts may not appear in the Start menu if the installation process is interrupted and the user is forced to log on as NGenSys more than once during the installation process.

The applicable shortcuts are

- Sybase for Windows NT
- SysOps Utilities

To add shortcuts to the Start menu

To add shortcuts to the Start menu, enter the following command in an MS-DOS window:

```
Copy \\WINDIR\Profiles\NGENDIR\StartMenu\Programs  
to \\WINDIR\Profiles\Administrator\StartMenu\Programs
```

where *NGENDIR* is the most recent NGenSys folder.

Errors during the upgrade

If any server component cannot be upgraded due to an error, then the upgrade program terminates. For example, if the Computer Name, Host Name, or Switch Name have been changed since installation, then the upgrade terminates. In this case, you must change names to the original name given at installation. For assistance with changing names, see “Installation and configuration checklist” on page 34.

If you experience problems during the upgrade that you are unable to resolve, contact your Nortel Networks customer support representative.

Application fails to initialize

If the error message `The application failed to initialize because the window station is shutting down` appears during the restart of the MAS server upgrade, click OK to restart the server.

SNMP.EXE - Application error

If during a server upgrade the error message `snmp.exe - Application Error` appears, click OK. This message must be acknowledged immediately.

The installation is interrupted

Disable any screen saver, wallpaper, or antivirus software on the server, and then reinstall.

Reapply patches message

A message may appear during upgrade to “reapply patches manually.” You can ignore this message.

Gremlin DLL installation problems

The Gremlin DLL initialization message may appear after an installation. You can ignore this message.

Dr. Watson error

If the following Dr. Watson error occurs during a server upgrade from Release 2.0 to Release 3.0, click OK to ignore the message:

```
Dr. Watson error in SERVICES.exe
Exception: access violation (0xc0000005),
Address: 0x7800f5c3
Setup is not able to open service manager in order to start
up "nbss" please do the following workaround:
```

Troubleshooting server problems

Introduction

Use this section to determine why errors occur during server operation and how to resolve them.

Services do not start

Services will not start under the following conditions:

- if the site name and server name are the same (change the site name using the following procedure)
- if the server does not have a connection to the switch (see “Problems with connection to server” on page 388)

To verify that services are running, use the SMONW utility, or use the Services control panel.

Site name syntax

The name should contain from 6 to 15 alphanumeric characters, of which the first character is a letter. Hyphens and underscores are allowed, but spaces are not allowed.

To change the site name

- 1 From the Start menu, choose Programs → Symposium Express Call Center → Shutdown.
- 2 Click OK to shut down all services.
- 3 After all the services are shut down, from the Start menu, choose Programs → Symposium Express Call Center → Configuration.
- 4 On the Local Machines Settings property page, in the Site Name box, change the site name.
- 5 Click OK to save your changes.
- 6 Restart the server to restart all services.

To change the ELAN IP address

- 1 Connect to the switch and log on.
- 2 Disable the ELAN on the switch.
- 3 Change the IP address using LD 117.
- 4 Initialize the switch.
- 5 If necessary, change the IP address of the network cards through Control Panel → Network → Protocol → TCP/IP → Properties → IP Address.
- 6 Shut down all Symposium Express programs, including SMonW.
Note: You can use the command **iccmsd** to close down the Symposium Express programs.
- 7 From Control Panel → Services, manually shut down Elan_monitor, NBNM, and OAM services.
- 8 From nortel\iccm\bin, run nbconfig-admin.
- 9 In Local Machine Settings → Edit, change the ELAN addresses as needed.
- 10 Restart the computer.
Note: You may have to restart the computer twice before the services start up.

To change the CLAN IP address

- 1 If necessary, change the IP address of the network cards through Control Panel → Network → Protocol → TCP/IP → Properties → IP Address.
- 2 Shut down all Symposium Express programs, including SMonW.
Note: You can use the command **iccmsd** to close down the Symposium Express programs.
- 3 From Control Panel → Services, manually shut down NBNM and OAM services.
- 4 From nortel\iccm\bin, run nbconfig-admin.
- 5 In Local Machine Settings → Edit, change the CLAN addresses as needed.
- 6 Restart the computer.
Note: You may have to restart the computer twice before the services start up.

Services cannot be restarted

The site name is used in part to define the channels in which tasks communicate with each other. If the site name is too short, you may experience problems restarting services in Symposium Express Call Center. Change the site name following the procedure in the previous section.

Data import fails

The switch can be set up to send out intermittent maintenance messages. If any of these messages are transmitted during the data capture process, the data import fails. Disable the maintenance messages, and perform the data capture again.

Target not NTFS error

If your hard drive is larger than 4 Gbytes, then you may see the error `TARGET IS NOT NTFS`. Ignore this warning.

Poor server performance

If you are using database applications with 16-bit ODBC drivers, server performance is significantly degraded. Nortel Networks does not recommend the use of these applications.

Agents automatically logged off

If you have a modem configured on your server, you should keep it turned on. If the modem is not turned on, CPU usage increases and, when your call center is near capacity, agents may be automatically logged off.

If you do not have a modem connected to your server, do not configure it.

Troubleshooting client problems

Introduction

Use this section to determine why errors occur during client operation and how to resolve them.

Client will not start

If you install an application that uses a different version of the ODBC drivers on the client PC, the client will not start. Nortel Networks does not recommend the use of applications with different versions of the ODBC drivers.

Symposium Express Call Center requires ODBC driver pack V3.5 and ODBC DLL version 3.51.171300. You can view the current version number by viewing the properties of the ODBC DLL file, or by running ODBCAD32.EXE from the system32 directory, and then selecting the Drivers tab. If you do not have the correct version, download it from the Microsoft web site.

ODBC database fails to open

If the message `Can't open a database created with a previous version of your application` appears, then follow these steps:

- 1 From the Start menu, choose Settings → Control Panel, and then double-click the 32-bit ODBC (ODBC Administrator) icon.
- 2 Select either User Data Source or the System Data Source (for example, the System DSN called Translator_EN).
- 3 Click Setup.
- 4 Click Advanced.
- 5 Delete the Logon name displayed in the Default Authorization edit box.
- 6 Click OK to close the Setup dialog box.
- 7 Close any open Data Source dialog boxes.

Problems connecting to the server

Inability to connect to the server can be caused by the following problems:

- The IP address in the shortcut is incorrect.
- The customer LAN is unavailable.
- The server is down.

To troubleshoot inability to connect to the server

- 1 Verify that the server is up and running.
- 2 Verify that TCP/IP is installed by typing **ipconfig** in an MS-DOS window.
- 3 At the client PC, check the IP address in the shortcut by following these steps:
 - a. Right-click the icon on the desktop.
 - b. Click the Shortcut tab.
 - c. Check the IP address at the end of the Target box. If it is incorrect, correct it and click OK.
- 4 On the client PC, check the Protocols tab in the Network control panel to verify that the TCP/IP protocol is installed. Display the properties of the TCP/IP protocol to find the client's IP address.
- 5 On the client PC, ping the client PC by entering the following command in an MS-DOS window:

ping aaa.bbb.ccc.ddd

where *aaa.bbb.ccc.ddd* is the IP address for the client PC. If the ping fails, the network card drivers may be incorrect. Check the Network control panel to make sure that the network card, cable, and network drivers are installed correctly. Test the network card with the test utility provided by the manufacturer (if any).

- 6 Repeat step 5 on the server PC.
- 7 On the client PC, ping the server by entering the following command in an MS-DOS window:

ping aaa.bbb.ccc.ddd

where *aaa.bbb.ccc.ddd* is the IP address for the server PC. If the ping fails, check the network hardware, and make sure any hubs are configured correctly. Also, make sure IP addresses are unique, and that all resources are within the same subnet mask.

- 8 On the server PC, ping the client by entering the following command in an MS-DOS window:

ping aaa.bbb.ccc.ddd

where *aaa.bbb.ccc.ddd* is the IP address for the client PC. If the ping fails, check the network hardware, and make sure any hubs are configured correctly. Also, make sure IP addresses are unique, and that all resources are within the same subnet mask.

- 9 Determine if you can ping your own server by entering the following command in an MS-DOS window:

ping aaa.bbb.ccc.ddd

where *aaa.bbb.ccc.ddd* is the IP address of the server. If you cannot ping your own server, it usually indicates that the TCP/IP protocol could not be bound to the network interface card. Check to see if you are using the correct network interface card driver.

Problems with connection to server

If the client IP address was entered incorrectly during the client install, errors will occur while you are logged on to the server. To solve this problem, follow these steps on the client PC.

- 1 In the Network control panel, display the properties of the TCP/IP protocol to find the client's IP address.
- 2 Use the Configuration utility to display the client IP address. Ensure that the IP address matches the address in the TCP/IP protocol properties.

Call Routing wizard or the Agent/Skillset assignment application fails to start

The following errors may occur after installing the client software. The message `An unsupported operation was attempted` appears when attempting to start the Agent/Skillset Assignment application, or the Call Routing wizard fails to start. If either of these errors occur, follow these steps.

- 1 Go to <http://windowsupdate.microsoft.com> and download the latest critical update for Windows.
- 2 From the Start menu, choose Programs → MS-DOS Prompt.
- 3 Navigate to the Windows\system directory.
For Windows NT, go to System32.
- 4 Type **regsvr32.exe pvdt70.ocx**, and then press Enter.
Note: To register the controls, you may need to copy pvdt70.ocx to the same directory as regsvr32.exe.

Uninstall GRTD causes client to function incorrectly

If the client software coresides with any Real-Time Interface (RTI) applications (such as GRTD or a customer-supplied RTI application), and either application is uninstalled, the remaining application may fail to operate properly. Symposium Express Call Center and RTI applications share common files and communication registries. If this problem occurs, you may need to reinstall the application.

Uninstall (stand-alone client) does not completely clean the registry

In some instances, the uninstall process may not remove all files associated with either Sybase or MAT Common Services, or the Nortel folder. Remnant disk files should not adversely affect subsequent installations of the client software. However, to ensure that all files are removed, reboot the client PC before uninstalling the client software to ensure that no processes are running on the client PC. If you experience problems uninstalling or reinstalling client software, remove the following folders manually (only if there is no other Nortel Networks-supplied software installed):

- C:\nortel_log
- C:\nortel

You must also remove the following registry keys:

- HKEY_LOCAL_MACHINE\SOFTWARE\NORTEL
- HKEY_CURRENT_USER\SOFTWARE\NORTEL

Unsuccessful coresident client installation

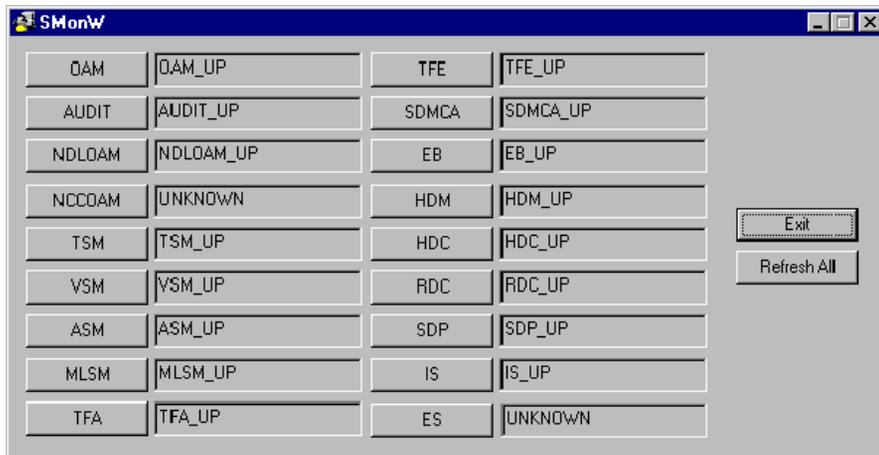
If the coresident client installation fails when you try to uninstall from Start → Programs → Symposium Express Call Center → Client Uninstall, ensure that the server has been shut down completely and that the only programs running in the taskbar are the Explorer and systray applications. Attempt to uninstall the client again. If this fails, delete the Nortel and Nortel_Log folders from drive C.

Note: Do not delete the registry entries from the coresident server.

Troubleshooting problems with Symposium Express Call Center services

System Monitor window

The System Monitor Window (SMonW) displays automatically on the server PC as the software loads. This window shows the status of services. Some services take a few minutes to become active. When all services are running properly on Symposium Express Call Center, the SMonW window shows the status of server services as UP. The NCCOAM service is always in an unknown state.



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 Express Call Center services

All of the Symposium Express Call Center functions are Windows NT 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.

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 (M1 only)	NDLOAM	Nodal 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
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

Server service	Shown as	Purpose
Intrinsic Services	IS	Manages skillset intrinsic data
Event Server	ES	Manages events

TFE does not come up after an upgrade or conversion

If the Task Flow Executor (TFE) does not appear in the UP state after an upgrade, then you must validate all scripts to correct the problem.

Other services do not come up

This problem can occur if you have more than one System Monitor Window open.

Troubleshooting Voice Services problems

Introduction

Use this section to determine how to resolve problems with the Voice Services card. This section also explains the default call behaviour when different errors occur.

Voice Services monitor

The Voice Services monitor provides a status of the link between the Voice Services card and the Symposium Express Call Center server. Whenever Voice Services does not appear to be functioning properly, you should check the Voice Services monitor to identify any connection problems. If the ELAN goes down or the Voice Services card crashes, the VPS monitor displays “Link down.” If it is searching for the status of the card, it displays “Link unknown.”

Channels cannot be acquired by the VS service and the status of the Voice Services card is “logged in”

If you execute a data import in Symposium Express Call Center after Voice Services have been configured, Voice Services ports may be acquired as agents instead of voice ports. Add each Voice Services port as a voice port and reconfigure it. For more information, refer to Chapter 8, “Configuring a Voice Services card.”

Channels cannot be acquired by the Voice Services RPC service and the Voice Service link is in “Link up” state

Ensure that the Voice Services keycode is correct and that it has been added using the Voice Services configuration utility. For more information, refer to Chapter 7, “Using the configuration utilities.”

All calls are defaulted to the Voice Services default DN

When this occurs, communication with the Voice Services card has been lost. If this happens, ensure that

- the network connection to the Voice Services card is available
- the Voice Services card is enabled (in active state)
- the VS service is running
- the correct IP address is entered in the Voice Services configuration utility. For more information, refer to Chapter 7, “Using the configuration utilities.”
- the correct card location is specified in the Voice Services configuration utility. For more information, refer to Chapter 7, “Using the configuration utilities.”

For more information on Voice Services default behaviour, refer to “Voice Services default behaviour” on page 398.

Symposium Express Call Center greeting or wait announcements are not played by Voice Services card

Ensure that Symposium Express Call Treatments are correctly configured. For instructions on configuring call treatments, refer to the *Call Center Management Guide*. In particular, ensure that

- you select “Meridian Mail or IVR” as the announcement type
- you enter the correct IVR ACD DN for calls to be transferred to hear announcements
- you select to play an announcement ID and that a valid announcement ID is entered

A specific Symposium Express Call Center greeting or wait announcement is not played

If a particular announcement is skipped and the caller continues to hear ring-back or the next appropriate greeting, the Voice Services announcement may have been deleted, renamed, or restored out of synchronization.

IF the announcement file (.sbc file) is	THEN you must
renamed	update the new name in the treatment properties. In the properties dialog box, click Browse and find the new name. For more information, refer to the <i>Call Center Management Guide</i> .
deleted	either add it again or restore it from a previous backup. For more information on Voice Services restores, refer to Chapter 10, “Backing up and restoring data.”
restored out of synchronization	redo the restore ensuring that the Voice Services PCMCIA card backup file and the Voice Services database backup file are from the same date. For more information on Voice Services restores, refer to Chapter 10, “Backing up and restoring data.”

Incorrect Symposium Express Call Center controlled announcements are played

If incorrect announcements are played, check the following items:

- Check that the call treatment is configured properly. For more information, refer to the *Call Center Management Guide*.
- Check that the switch map entries in the Voice Services Administration window are correct for each IVR ACD Queue.

- Check the position IDs for each port/channel. You can check this as follows:
 - a. Log on to the Meridian 1.
 - b. Load Overlay 11 by typing **LD 11** at the prompt.
 - c. Respond to the prompts as shown in the table. If a prompt appears that is not in the table, press Enter to accept the default value:

Prompt	Response	Description
REQ	PRT	
TYPE	2616	
TN	xx xx xx	If your switch is an Option 11, enter the slot number of the card. If you use any other type of switch, enter the loop/shelf/card number of the card.

Configuration changes made using the Voice Services configuration utility do not take effect

Changes made with the Voice Services configuration utility do not take effect until you restart the VS service. This is done by clicking Stop in the VS service monitor, waiting until the service is down (the link state changes to Link Down), and then clicking start to restart the VS service.

Digits collected from a Prompt/Collect digits treatment are not being sent to TAPI

Note: The Prompt/Collect Digits feature will only be available in a future release of Symposium Express Call Center.

Ensure that the following entries are correctly set in the main window of the VS Configuration application:

TAPI Server IP Address: *aaa.bbb.ccc.ddd* (address of TAPI server)

TAPI Port Address: (default is 5000)

After you make changes, you must restart the VS service.

Digits button is disabled in the Voice Services Administration window

Note: The Prompt/Collect Digits feature will only be available in a future release of Symposium Express Call Center.

Prompt/Collect digits is a keycode-enabled feature. Ensure that the correct keycode has been entered in the Voice Services configuration utility.

Prompt/Collect digits treatment does not verify the digits entered

Note: The Prompt/Collect Digits feature will only be available in a future release of Symposium Express Call Center.

Select the treatment from the Voice Services Administration window and click Properties. Ensure that the Verify option has been selected. For more information, refer to the *Call Center Management Guide*.

Voice Services default behaviour

Use the following table to determine what default behaviour occurs after several error conditions.

System state	Voice Services monitor status	Call behaviour	Service behaviour
Ethernet link goes down	Service Restarting: Link Down	After polling times out (approximately 15 seconds), all calls in the system are routed to the default DN.	The Voice Services RPC service restarts and continually attempts to connect until successful. At this point, calls are treated normally.

System state	Voice Services monitor status	Call behaviour	Service behaviour
Voice Services card crashes or is rebooted	Service Running: Link Unknown	Calls currently receiving treatment are disconnected. Calls waiting in the IVR ACD queue for an available Voice Services agent will continue to ring until the card restarts. Then the call is transferred to the night call forward DN set up for the ACD queue.	The Voice Services RPC service restarts and continually attempts to connect until successful. When the service reconnects, it logs off all Voice Services agents, and all calls are forwarded to the night call forward DN. When the problem is resolved, Voice Services agents are then logged on again, and calls are accepted normally.
Server crashes		After polling times out (approximately 15 seconds), all calls are routed to the default DN as specified in the Voice Services configuration utility.	When the problem is resolved, the VS service starts up automatically and reconnects to the Voice Services card, and calls are accepted normally.
Card is disabled	Service Running: Link Up	Voice Services agents are logged off. All calls are routed to the night call forward DN on the IVR ACD DN used for Voice Services.	
Card is enabled	Service Running: Link Up	Voice Service agents are logged on. All calls will receive regular treatment.	Service is normal.

System state	Voice Services monitor status	Call behaviour	Service behaviour
Voice menu times out before digit is entered	Service Running: Link Up	If VoiceMenu repeats is set to greater than zero in the Voice Services configuration utility, the menu repeats, depending on how many times the timeout has occurred. Otherwise, if a default DN has been specified, the call is routed to that DN. If no default DN is specified, the call is disconnected.	
Treatment ID not available from the protocol handler	Service Running: Link Up	If Voice Services is being used through Symposium Express Call Center to play announcements, and there is an error whereby the protocol handler (vps_prot.dll) cannot hand back a treatment ID, the call is disconnected.	

System state	Voice Services monitor status	Call behaviour	Service behaviour
SBC file missing	Service Running: Line Up	<p>If the SBC file is missing in a front-ending scenario, the call is transferred to the default DN as configured in the Voice Services configuration utility.</p> <p>If the SBC file is missing from a treatment configured in the Call Treatment wizard, then the caller does not hear the announcement, but continues to queue and hear ringback or music, depending on what is configured in the treatment.</p>	

Poor configuration results in call looping

To help prevent calls from entering a continuous loop condition, do not configure a treatment with an after-treatment that references its own treatment ID (for example, the treatment ID 1000 must never have an after-treatment that references a treatment ID of 1000).

Loadware upgrade fails

When reverting the Voice Services loadware to a previous version, you cannot uninstall the loadware from the card. Therefore, the recommended procedure to return the card to an older loadware version is to perform a loadware upgrade procedure using the older loadware release. For more details on how to upgrade the Voice Services Card loadware, see “To upgrade the loadware” in the *Symposium Express Voice Services Card Installation Guide* for Release 3.0.

Troubleshooting other problems

Introduction

Use this section to troubleshoot other errors that occur during system operation.

Problems connecting to the switch

Inability to connect to the switch can be caused by the following problems:

- The IP address of the switch is not unique or correct.
- The serial number of the switch is not correctly configured.
- The embedded LAN is unavailable.

To troubleshoot this problem, follow these steps.

- 1 Verify that the switch is up and running.
- 2 Verify that the switch IP address is not the default installed with the switch. Network conflicts can result if you use the default address.

Note: To find the switch IP address, use the STAT ELNK command in LD 137.

- 3 On the server PC, ping the switch by entering the following command in an MS-DOS window:

```
ping nnn.nnn.nnn.nnn
```

where *nnn.nnn.nnn.nnn* is the IP address for the switch.

- 4 Use the Feature Report utility to verify that the switch IP address and serial number are correctly configured on the server. If the IP address is incorrectly configured, you can modify it with this utility. If the serial number is incorrect, contact your distributor for a new keycode; you must reinstall the server.

Phantom calls and problems with recorded announcements

Meridian Mail ports used by Symposium Express Call Center and Symposium Link must not be shared with any other applications (for example, voice mail). Port sharing can cause phantom calls or affect recorded announcements. To dedicate ports, follow these steps.

- 1 On the switch, define a unique ACD-DN for Symposium Express Call Center.
- 2 Determine the number of voice ports needed to support IVR in Symposium Express Call Center.
- 3 Assign the appropriate number of voice ports to the new ACD-DN.
- 4 On Symposium Express Call Center, ensure that the voice ports and IVR ACD-DNS configured match those configured on the switch.
- 5 Repeat steps 1 to 3 to define ACD-DNs for Symposium Link.

Acquire of music and RAN routes fails

Symposium Express Call Center does not need to acquire music and RAN routes. It uses music and RAN route information only for reporting purposes. If you see an Acquire failed message, ignore it.

Voice processing stops

You can configure password expiry for Meridian Mail mailboxes. If this option is set, you must change Meridian Mail passwords regularly. If you fail to do so, voice processing stops when the password for the mailbox expires.

Switch name and server name must not be the same

The switch name and the server name must be different so that there is no duplicate WINS name on the ELAN.

Switch problems

Do not use the default switch IP address

Do not use the default IP address that comes with the switch or you may experience network conflicts.

Meridian Mail uses dedicated voice ports (M1, and M1 IE only)

Meridian Mail voice ports used by Symposium Express Call Center must not be shared with any other application (for example, general voice mail). Otherwise, you may encounter phantom calls in the real-time displays, or configured announcements may not play.

Message indicates that Music and RAN routes fail to be acquired

Music and RAN routes are not acquired by Symposium Express Call Center, but they are saved to the database. If you receive an acquired failed message, music and RAN announcements should still function properly.

All callers receive default treatment

If, after restarting the server PC, CDNs are acquired, the TF Loader window indicates everything is functioning correctly, and SMonW indicates all services are running, yet all calls entering the call center receive the default treatment (that is, the agent status shows ACD Active), then ensure that you are running the minimum required software release for the Meridian 1. If you are running the correct software and the problem persists, perform either of the following steps:

- Ensure that the Meridian 1 PEP MPLR11129 is installed on the switch.
- Shut down the server PC, and then shut down the Meridian 1 switch. Then restart the switch followed by the server PC.

Chapter 10

Backing up and restoring data

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Section A: Backups

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Types of backups in Symposium Express Call Center

Introduction

There are three types of backups in Symposium Express Call Center:

- full backups
- unscheduled and scheduled partial backups
- Voice Services backups

There are two levels of Symposium Express Call Center administration: customer and system. The recommended access levels for backups are as follows:

- full backups – Windows NT administrator user
- unscheduled partial backups – customer administrator (custadmin user)
- scheduled partial backups – system administrator (sysadmin user)
- Voice Services backups – Windows NT administrator user

Partial backups and Voice Services backups can be done online (while the call center is operational). Full backups must be done offline (while the call center is not operational). Nortel Networks recommends that tapes be used for full and partial backups. For more information, refer to “Backup tapes” on page 413.

Full backups

A full backup is done through Windows NT. Only system administrators (Windows NT Administrator user type) can perform a full backup of the system. A full backup backs up the contents of all hard drives, including the registry and the database.

Partial backups

You can perform an unscheduled online backup by accessing the Backup utility from the Administration window. Alternatively, you can perform a scheduled partial backup through the Advanced Functions icon in the Administration window. These backups provide a backup of the database that contains historical data, reports, and call center configuration information. Typically, these backups are carried out by the Call Center Administrator. For information on performing partial backups, refer to the *Symposium Express Call Center Management Guide*.

Voice Services backups

Note: Voice Services is a keycode-enabled feature. You can only perform Voice Services backups if you have this option.

There are two steps to a full Voice Services backup:

- Voice Services PCMCIA card backup
- Voice Services database backup

There are two ways to perform a Voice Services PCMCIA card backup:

- using a third-party file transfer product
- using a computer with a PCMCIA card drive

You can perform a Voice Services database backup by logging on to the server, and running the Voice Services Database Backup-Restore utility.

For more information, refer to the *Call Center Management Guide*.

When to perform each type of backup

Full backup using Windows NT

Nortel Networks recommends that you perform a full backup after the initial Symposium Express Call Center installation and configuration, before and after a major upgrade to a new release (on separate tapes), or after major hardware configuration changes. For more information, refer to “Performing full backups” on page 411.

Partial backup

Based on the size of your call center, Nortel Networks recommends that you regularly perform partial backups, and that you make sure that you rotate the tapes. For more information, refer to the *Call Center Management Guide*.

Voice Services backup

Note: Voice Services is a keycode-enabled feature. You can only perform Voice Services backups if you have this option.

Perform a full Voice Services backup (the PCMCIA card and the Voice Services database) every time a full Symposium Express Call Center backup takes place. You should also do a full Voice Services backup every time you

- create new prompts
- change the treatment configuration (for example, make changes to a previously created voice menu)
- add, remove, or change Voice Services ports, either through a Voice Services data import, or through the Switch Map section of the Voice Services Administration application
- change the Voice Services configuration

For more information, refer to the *Call Center Management Guide*.

Performing full backups

Before starting a full backup

Before you start a full backup, you must

- ensure the coresident client is shut down
- ensure all services in the System Monitor window are shut down
- ensure that Sybase BKCserver, SQLserver, VS service, and Voice Services Monitor are shut down. You do this from the Services tab in the Control Panel.
- shut down Report Listener (from the system tray)
- shut down all other services that are not essential for running Windows NT. For troubleshooting information, refer to the appropriate Windows NT documentation.

To shut down all services

- 1 From the Windows Start menu, choose Programs → Symposium Express Call Center → Shut down.

or

- 1 From the Windows Start menu, choose Run.
- 2 Enter **iccmsd**.
- 3 Click OK.

When the shutdown procedure is complete, go to Start menu → Settings → Control Panel → Services. The list of services appears. The Status column indicates which services are active (that is, started) or shut down (that is, stopped). Ensure that the services listed here are shut down:

- MAS Backup/Restore
- MAS Configuration Manager
- MAS Event Scheduler
- MAS Fault Manager
- MAS Link Handler Port #2

- MAS OM Server
- MAS Security
- MAS Service Daemon
- MAS Service Manager
- SNMP
- Sybase_BCKServer
- Sybase_SQLServer
- VPSRPCServer

If any service is active (started), shut it down manually by clicking Stop.

To perform a full backup

For information on performing full backups, refer to the appropriate Windows NT documentation.

Note: When performing the backup, ensure that you select to back up the local registry.

Backup tapes

Introduction

This section provides information and recommendations on backup tapes, rotating tapes, and cleaning tapes. To ensure that your backups are complete and error-free, ensure that you follow these recommendations.

Tape drives to use

Nortel Networks recommends that you use one of the following tape drives:

- Seagate STD28000N
- Tandberg MLR1
- Tandberg SLR4
- Tandberg SLR5
- Tandberg SLR50

Separate tapes for each backup type

You must use separate backup tapes for full and partial backups, regardless of the amount of space available on the tape. Unique formatting by Windows NT requires the use of separate tapes. (Full backups use Windows NT formatting. Partial backups use Sybase formatting.)

Note: If you want to reuse a tape that has been used for a different type of backup, erase the contents first.

Ensure that the tapes you use are not write-protected. Windows NT does not detect write-protection and continues attempting to perform a backup, even on a write-protected tape.

Nortel Networks recommends that you maintain a minimum of three tapes for the partial backups and a minimum of three tapes for full backups.

Rotating tapes

Tapes should be rotated daily and stored at an off-site location. This protects your information in the event of a natural disaster or any other catastrophic event.

Do not keep a tape in the tape drive for more than one or two days for the following reasons:

1. Any backup overwrites existing data on the tape. If the same tape is used for several consecutive backups and the tape becomes damaged, no other backup is available to restore lost data.
2. Consistent reuse of the same tape accelerates wear on the tape. Tapes may need replacement earlier than their normal lifespan of 2000 backup cycles.

Head-cleaning kit

Nortel Networks recommends purchasing a head-cleaning tape to prolong the life of your tape heads and to ensure the quality of your backups. Tape drives should be cleaned based on how often they are used.

Refer to your cleaning kit for information on cleaning maintenance.

Declaring a tape drive

Introduction

Before you can use a tape drive to perform a backup, you must declare a functional tape drive using Windows NT Setup.

Note: Ensure that you have the SCSI drivers for your tape drive installed. For instructions, refer to the appropriate Windows NT documentation.

Prerequisite

You need the original Windows NT Server 4.0 CD-ROM.

To declare a tape drive

- 1 From the Start menu, choose Settings → Control Panel.
- 2 Double-click the Tape Devices icon.
Result: The Tape Devices property page appears.
- 3 Click the Drivers tab.
- 4 Click Add.
Result: The Install Driver dialog box appears.
- 5 Select the appropriate driver.
- 6 To install the driver, do one of the following steps:
 - a. Click OK if you have the driver for your tape drive installed on your hard drive.
 - b. Click Have Disk if you have the driver on a separate disk.
Result: You are prompted to enter the full path to the Windows NT Tape Device files. This requires the original Windows NT CD-ROM.
- 7 Enter the path, and then click Continue.
Result: The system prompts you to restart the system.

- 8 Click Restart Now (as appropriate).

Result: Your tape drive is declared. If you encounter any problems, refer to the appropriate Windows NT documentation.

Section B: Restoring data

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Types of restores

Introduction

There are three types of restores in Symposium Express Call Center:

- full restore
- partial restore
- Voice Services restore

It is standard practice to restore Symposium Express Call Center to the same PC or to a PC with the *exact* same configuration. If restoring to a computer with different hardware, refer to “Migrating Symposium Express Call Center to a new server platform” on page 169.

How and when to perform full restores

Perform this restore if there is a catastrophic disk failure, a catastrophic server failure, or in other nonrecoverable and extreme situations.

A full restore restores all files from the original Symposium Express Call Center system. A full restore is carried out using Windows NT. This is done by installing a temporary copy of the server operating system, and then using the Windows NT backup program to restore all files. The entire operating system is returned to the state it was in when the last full backup was performed. You must do a full restore while the call center is offline. For more information, refer to “Restoring data from a full system backup to an identical configuration” on page 420.

How and when to perform partial restores

Perform a partial restore if the database becomes corrupt. *You must also do this as part of a full restore.*

This restores the database that contains historical data, reports, and call center configuration information. For more information on performing partial restores, refer to “Restoring data from a partial backup” on page 427.

How and when to perform Voice Services restores

Note: Voice Services is a keycode-enabled feature. You only need to perform Voice Services restores if you have this option.

Perform this restore if information is overwritten and you want to go back to a previous version, or if the Voice Services database becomes corrupt. *You must also do this as part of a full Windows NT restore.*

There are two steps to doing a Voice Services restore:

- Restore the Voice Services PCMCIA card.
- Restore the Voice Services database.



CAUTION

Risk of malfunction

When doing a Voice Services backup, you must ensure that the PCMCIA card and the Voice Services database backups are from the same date to ensure the correct files are referenced. A mismatched PCMCIA card and database can lead to Voice Services not functioning.

For Voice Services troubleshooting information, refer to “Troubleshooting Voice Services problems” on page 394.

For more information on performing Voice Services restores, refer to “Performing Voice Services restores” on page 429.

Restoring data from a full system backup to an identical configuration

Introduction

Use the following procedure to restore the entire system from a full backup after a disk failure or system corruption. This procedure places the server in the state it was in when the last full backup was made. This is done by installing a temporary copy of the server operating system, and then using the Windows NT backup program to restore all of the files from the original system.

ATTENTION

After completing the full restore, you must do a partial restore and a Voice Services restore. For more information, refer to “Restoring data from a partial backup” on page 427 and “Performing Voice Services restores” on page 429.

Checklist for recovering with a full backup tape

Step	✓
Replace the faulty hard drive if it is not usable. For instructions, refer to the documentation included with your hardware platform.	
Prepare the server with the original configuration before the Symposium Express Call Center software was installed. Refer to the “Customer-supplied equipment and data checklist” on page 27.	
Install Windows NT 4.0 Server. (This is a temporary copy that is used to restore the original full backup only.) Refer to the Windows NT documentation and to the Symposium Express Call Center installation prerequisites. Refer to “Pre-installation checklist” on page 62. Note: Install Windows NT 4.0 Server to the WIN_TMP directory on drive D.	

Step	✓
Install the tape device driver and the correct SCSI device drivers for your tape drives. For instructions, refer to the documentation included with the hardware.	
Reduce the size of the swap file. For more information, see “To reduce the swap file size” on page 423.	
Clean the tape drive using the appropriate head-cleaning kit. Follow the instructions provided with the head-cleaning kit.	
Restore the full backup. For more information, see “To restore data from a full backup” on page 425.	
Reinstall PEPs that you installed after the full backup from which you are restoring (if any).	
Restore the partial backup. For more information, refer to “Restoring data from a partial backup” on page 427.	
Restore the Voice Services PCMCIA card information and the Voice Services database. For more information, refer to “Performing Voice Services restores” on page 429.	
Restart the restored server. Make sure all services come up, and log on from a client PC. Monitor the Event Log for problems.	
<p>After confirming that the restore was successful, delete the following directories:</p> <ul style="list-style-type: none"> ■ the temporary Windows NT directory (D:\WIN_TMP) 	

Requirements

Advanced technical knowledge in Windows NT	
Replacement hard drive with a capacity that is the same as or greater than that of the drive being replaced	
Installation media for Windows NT Server 4.0 CD ROM (including valid license agreement), and 3 Windows NT installation disks	

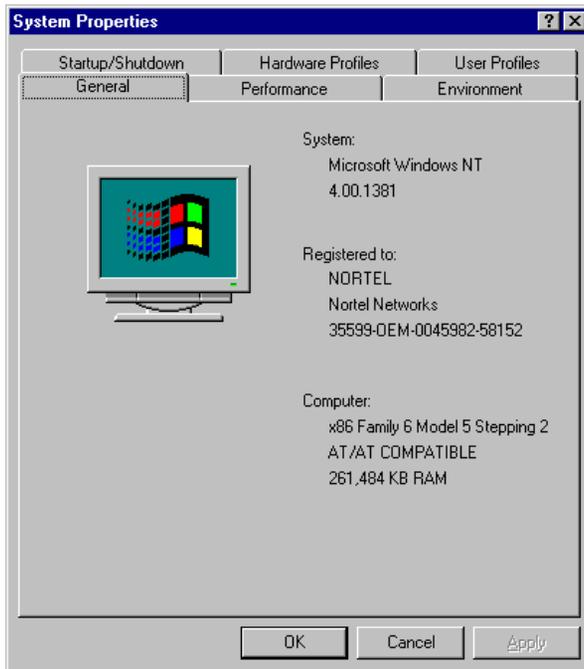
Any PEPs that were installed since the last full backup	
Full backup tape of the server	
Latest partial backup tape of the server	
Latest Voice Services backup (PCMCIA card backup and Voice Services database backup)	
Head-cleaning kit	
Drivers for tape backup unit and corresponding SCSI controller	

To reduce the swap file size

During installation of the temporary Windows NT operating system, a swap file of 267 Mbytes is created on D:\WIN_TMP. As a result, insufficient space is available for the restore. To allow the restore to proceed, reduce the size of this swap file to 32 Mbytes.

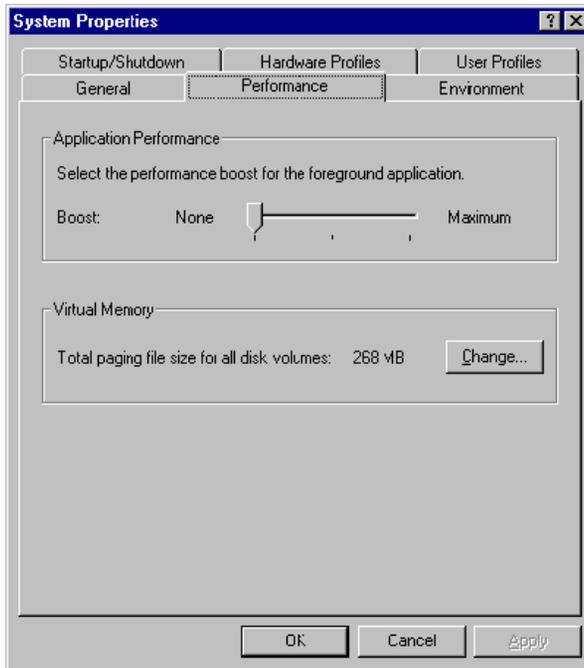
- 1 Log on to the server as **Administrator**.
- 2 From the Windows Start menu, choose Settings → Control Panel, and then double-click the System icon.

Result: The System Properties window appears.



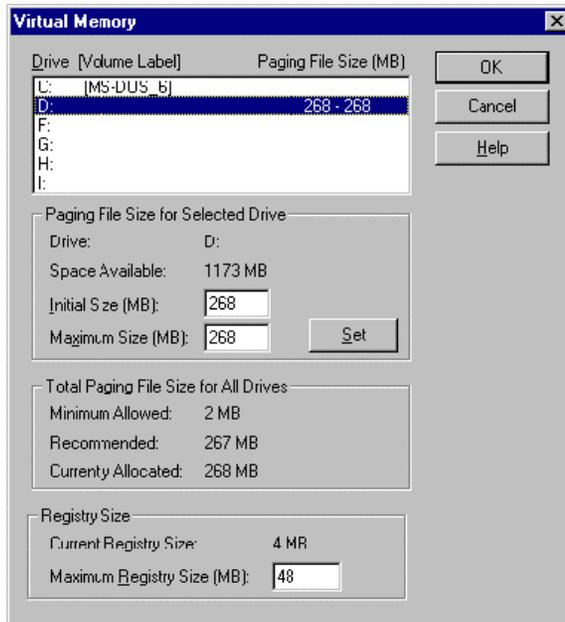
- 3 Click the Performance tab.

Result: The Performance property page appears.



- 4 Click Change in the Virtual Memory section.

Result: The Virtual Memory settings appear.



- 5 Select drive D.
- 6 Type **32** for both Initial Size (MB) and Maximum Size (MB).
- 7 Click Set, and then accept any warnings presented.
- 8 Click OK.
- 9 When prompted, restart the server.

To restore data from a full backup

- 1 Log on to the server as **Windows NT Administrator**.
- 2 Insert the tape into the tape drive and perform the full Symposium Express Call Center restore using the Windows NT Backup program. For more information, refer to the appropriate Windows NT documentation.
- 3 Launch the Windows NT Backup program. For more information, refer to the appropriate Windows NT documentation.

Note: Ensure that you choose the option to catalog the tape.

- 4 Restore all drives as necessary. For more information, refer to the appropriate Windows NT documentation.

What's next?

ATTENTION

You must perform a partial restore. Refer to “Restoring data from a partial backup” on page 427.

If you have the Voice Services option, you must perform both a Voice Services PCMCIA card restore and a Voice Services database restore. Refer to “Performing Voice Services restores” on page 429.

Restoring data from a partial backup

Introduction

Use the following procedure to restore data from a partial backup. If you experience a database corruption problem and a partial backup tape is available, then you can perform a partial restore. *You also use this restore procedure after doing a full restore of the system to update the database files.* For more information about full restores, refer to “Restoring data from a full system backup to an identical configuration” on page 420.

System requirements for partial restore

The following criteria must be met for a partial database restoration to run successfully:

- Restore from a partial backup with a valid Symposium Express Call Center installed.
- Have a functional tape drive declared using Windows NT Setup. For more information, see “Declaring a tape drive” on page 415.

ATTENTION

If the system is not recoverable from the disk failure, perform a full restore first, and then restore the database using the partial backup tape.

Required time

The entire partial restore procedure takes 1–2 hours.

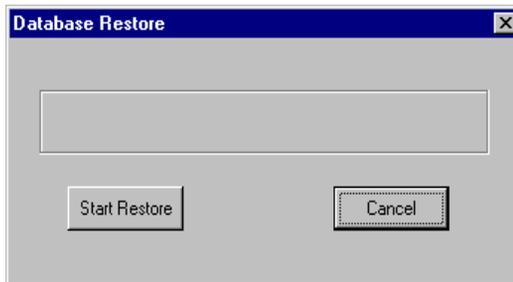
To perform a partial restore

ATTENTION

Restoration of data from a partial backup shuts down all Symposium Express Call Center services.

- 1 Log on to Windows NT using the NGenSys user ID and the appropriate password.
- 2 Insert the tape with the last partial backup in the tape drive.
Note: Do not remove the backup tape during the restoration procedure.
- 3 If the coresident client is running, you must shut down the client.
- 4 From the Start menu, choose Programs → Symposium Express Call Center → Database Restore.

Result: The Database Restore dialog box appears.



- 5 Click Start Restore.

Result: A message box prompts you to ensure that the tape is in the tape drive.

- 6 Click OK.

Result: Services on the server are shut down and the database restore process starts. When the process is complete, the Database Restoration Complete dialog box appears.

Note: Errors that occur during the restore are captured in the D:\Nortel\data\backup\Restorelogs\restore.log log file.

- 7 Click Done.
- 8 Restart the server.
- 9 Verify the data by running a configuration report.

Performing Voice Services restores

Introduction

Perform this restore if information is overwritten and you want to regress to a previous version, or if the Voice Services database becomes corrupt. *You must also do this as part of a full Windows NT restore.* For more information about full restores, refer to “Restoring data from a full system backup to an identical configuration” on page 420.

There are two steps to completing a Voice Services restore:

- 1 Perform a Voice Services PCMCIA card restore. There are two ways to restore a Voice Services PCMCIA card:
 - using a third-party file transfer product
 - using a computer with a PCMCIA card drive

Nortel Networks recommends that you use the WS_FTP Pro application to do a Voice Services PCMCIA card backup.

To restore the PCMCIA card using the WS_FTP Pro application, refer to “To perform a Voice Services PCMCIA card restore using the WS_FTP Pro application” on page 430. To restore the PCMCIA card using a computer with a PCMCIA card drive, refer to “To perform a Voice Services PCMCIA card restore using a computer with a PCMCIA card drive” on page 432.

- 2 Restore the Voice Services database. Refer to “To restore the Voice Services database” on page 432.



CAUTION

Risk of malfunction

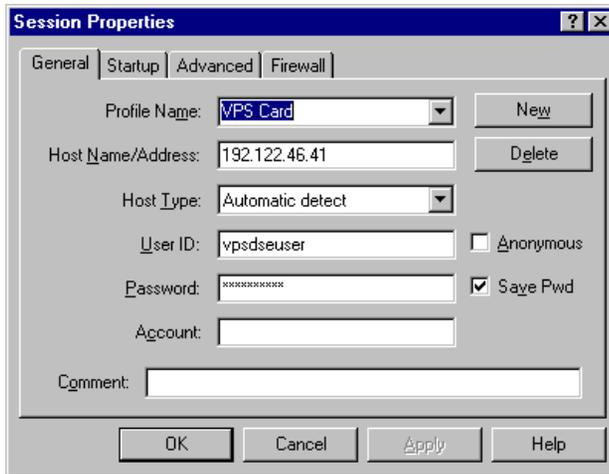
You must ensure that the PCMCIA card and the Voice Services database backups are of the same version to ensure synchronization. A mismatched PCMCIA card and database can lead to Voice Services not functioning.

To perform a Voice Services PCMCIA card restore using the WS_FTP Pro application

The minimum release required for WS_FTP Pro is Release 5.1.

- 1 From the Symposium Express Call Center server, start the WS_FTP Pro application.

Result: The Session Properties window appears.



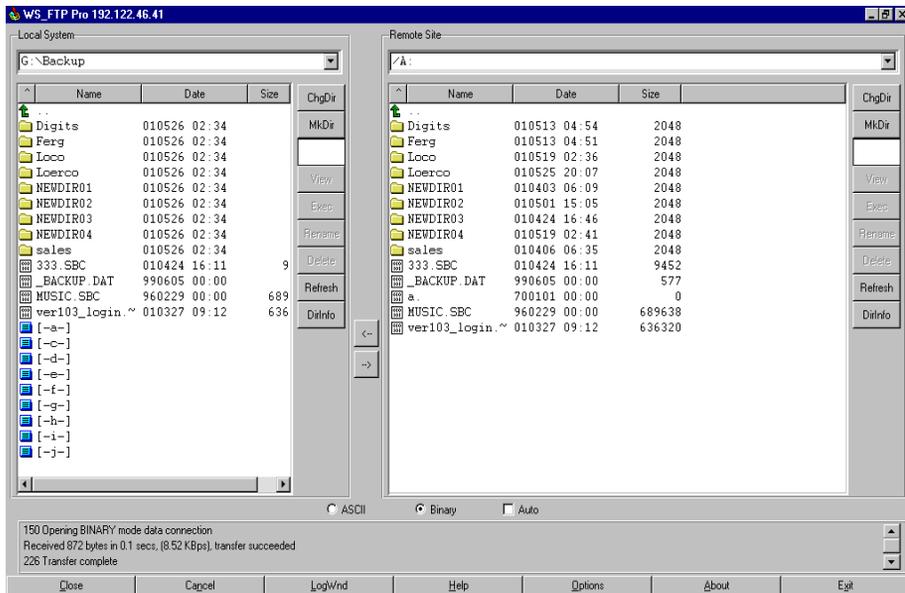
- 2 Click New.
- 3 In the Profile Name box, enter a name.
- 4 In the Host Name/Address box, enter **aaa.bb.ccc.ddd**, where *aaa.bbb.ccc.ddd* is the IP address of the Voice Services card.
- 5 In the User ID box, type **vpsdseuser**.
- 6 In the Password box, enter the appropriate password.

ATTENTION

This password is the default. It should have been changed by the system administrator. If it has been changed, contact your system administrator for the correct password. If it has not been changed, contact your system administrator to change it.

7 Click OK.

Result: The WS_FTP Pro window appears.



- 8 Navigate to the directory where the backup is stored on the Local System panel.
- 9 In the Remote Site panel, ensure that the root directory (/A:) appears on the drop-down list. If it does not appear, navigate to that directory.
- 10 Select all the directories located in this directory.
- 11 Ensure that Binary and Auto are checked.
- 12 Click the right transfer button (the right arrow) to copy the files from the backup location to the PCMCIA card.

Result: The message Do you want to transfer the selected folders and their contents? appears.

- 13 Click Yes.

To perform a Voice Services PCMCIA card restore using a computer with a PCMCIA card drive

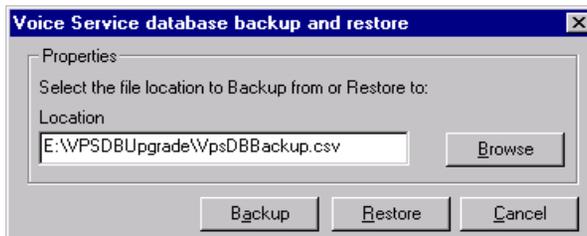
This procedure assumes that the PCMCIA card is in the faceplate slot (drive A) of the Voice Services card. If this is not the case, then the Voice Services card must be disabled. For more information on disabling the Voice Services card, refer to the DTR.

- 1 Shut down the VS service using the Voice Services monitor.
- 2 Remove the PCMCIA card from the Voice Services card.
- 3 Insert the PCMCIA card into the PCMCIA adapter slot in your computer.
- 4 Ensure that a backup location is available on your computer.
Note: The PCMCIA card appears as the next available drive in Windows Explorer, and it can be accessed as any other drive on the computer.
- 5 Delete the contents of the PCMCIA card, and copy all files and directories from the backup location to the root of the card.
- 6 Remove the PCMCIA card from your computer and replace it in the Voice Services card slot.

To restore the Voice Services database

- 1 Log on to Windows NT using the **NGenSys** user ID.
- 2 Insert the floppy disk that contains the appropriate backup into the floppy disk drive.
- 3 From the Windows Start menu, choose VS Database Backup-Restore.

Result: The Voice Service database backup and restore dialog box appears.



- 4 Click Browse to locate the previously backed up .csv file, and then click Restore.

Restoring to a PC that has a different hardware configuration

To restore to a PC that has a different hardware configuration from your original server

Refer to “Migrating Symposium Express Call Center to a new server platform” on page 169.

Appendix A

Comparisons with Symposium Call Center Server

In this appendix

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Overview

Introduction

This chapter describes the differences between Nortel Networks Symposium Call Center Server Release 3.0 and Symposium Express Call Center Release 3.0.

Symposium Express Call Center

Symposium Express Call Center is designed for call centers with 150 or fewer agents who want the functionality of Symposium Call Center Server with a simplified interface. No hardware is supplied with Symposium Express Call Center. However, customers can choose to purchase a preconfigured hardware and software package.

Features

All features, with the exception of scripting from Nortel Networks Symposium Call Center Server Release 3.0, are visible with Symposium Express Call Center when you log on with the system administrator ID and password. In addition, the Administration window displays all icons from Symposium Express Call Center.

Customer access

Customer administrators do not have access to all of the features displayed in the Administration window. If customer administrators require customization that is not available from the Symposium Express Call Center Administration window, they must request support from their distributor or support personnel.

For more information

For complete information on Nortel Networks Symposium Call Center Server Release 3.0, refer to the documentation for that product.

Installation differences

Introduction

Symposium Express Call Center installs differently and has different installation requirements from Nortel Networks Symposium Call Center Server Release 3.0.

Installation differences

Item	Nortel Networks Symposium Call Center Server Release 3.0	Symposium Express Call Center
Windows NT support	Windows NT 4.0 (for server only)	Windows NT Server 4.0 (for server) and Windows NT Server 4.0, Windows NT 4.0 Workstation, Windows 98 (for client), Windows 2000/Windows XP (available on separate CD).
Server/client coresidency	Not available	Server is always coresident with the client. Optionally, additional PCs can have client software only.
FAT partition	Supported (NTFS is recommended)	Server must be installed on an NTFS partition. Client can be installed on either an NTFS or a FAT partition.
RAID software	Included in server installation	Not included in server installation.
Meridian Mail ACCESS	Supported	Not supported; no Voice Prompt Editor functionality exists.

Item	Nortel Networks Symposium Call Center Server Release 3.0	Symposium Express Call Center
Option 11C Compact	Not supported	Supported (North America only).
Database size	Variable, depending on platform	Limited to 2 Gbytes.

Configuration differences

Introduction

Symposium Express Call Center has several system configuration differences. These include new configuration utilities described in this guide.

Configuration differences

Item	Nortel Networks Symposium Call Center Server Release 3.0	Symposium Express Call Center
Offline mode	Not available	Available; allows offsite configuration of users, skillsets, call presentation classes, or agent to skillset assignments.
Data Parser	Not available	Available; supports automatic configuration of switch resource data on the Symposium Express Call Center.
Import wizard	Not available	Available; supports automatic configuration of switch resources and users, skillsets, agent to skillset assignments, and call presentation classes. Automatically acquires switch resources.
Script creation	Create and edit scripts with the Script Editor, and validate them manually.	Run Call Treatment and Routing wizards to configure and validate the scripts.

Item	Nortel Networks Symposium Call Center Server Release 3.0	Symposium Express Call Center
Script activation	Scripts activated manually after you create them	Master and Network (if you have purchased the NSBR feature) are automatically activated after installation. All others are activated once configured in the Call Treatment and Routing wizards.
Script checker	Optional tool that provides warnings of poor scriptwriting practices	Not available
Script	Scripts and script variables	No modification except through Call Treatment and Routing wizards. Read-only access only from the System window.
Switch resource configuration	Can be performed by customers from the System window	Cannot be performed by customers, as they do not have access to Advanced Functions.
Access classes	Customer-defined and configurable	Four predefined access classes: system administrator, customer administrator, supervisors, and senior supervisor. System administrators and customer administrators can create additional supervisor and senior supervisor user types. Only one customer administrator logon ID.

System window differences

Introduction

Symposium Express Call Center includes a simplified interface containing applications that are launched by double-clicking the icons in the Administration window.

If you log on as a system administrator, all icons representing the features of Symposium Express Call Center are visible. If you log on as a customer administrator, supervisor, or senior supervisor user type, some of the icons are hidden.

System window differences

Icon in Symposium Express Call Center	Replaces in Symposium Call Center Server Release 3.0
Real-time Displays	Threshold Classes
Reports	Reports and Real-time Displays
Agent/Skillset Assignments	Assignments - Agent to Skillset
Tutorials and User Guides	Help menu items
Agent/Supervisor Administration	Users
Call Presentation	Call Presentation
Call Treatments	Scripts, recorded announcements
Call Routing	Script Variables, scripts
Backup	Backup Status
Voice Services	The Voice Services card is not supported in Symposium Call Center Server Release 3.0.

Icon in Symposium Express Call Center	Replaces in Symposium Call Center Server Release 3.0
Import	Manual switch configuration (CDNs, Voice Ports, Phonesets, IVR ACD-DNs, Routes)
Advanced Functions	System Tree

User access differences

Introduction

Symposium Express Call Center contains specific access types that cannot be modified. The access model is described in “User access model” on page 309.

Administration and System window differences

New in Symposium Express Call Center	Description
User access classes	User accesses limited to system administrator (distributor only), customer administrator, supervisors, and senior supervisors. Levels of access cannot be changed.
Threshold classes	Can be defined in real-time displays only. There is no script access except through the Call Routing wizard.
Three fixed real-time displays	Maximum three real-time displays on screen at one time. Only view agent performance, skillset performance, and call center summary information. Can set thresholds and colors.
Online Help	No context-sensitive (question mark) Help. Some Help descriptions in Advanced Functions do not apply to Symposium Express Call Center.
Online tutorials	Provide demonstrations on how to perform many tasks in Symposium Express Call Center.
Start menu shortcuts	SMI window or all utilities accessed from the Start menu.
Phoneset displays	Configured from the Administration window.

Appendix B

Engineering and capacity guidelines

In this appendix

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Overview

Introduction

All Symposium Express Call Center components must be engineered to ensure that Symposium Express Call Center meets the customer's requirements, and that the customer benefits from the huge flexibility in call treatment provided by Symposium Express Call Center.

To engineer the Symposium Express Call Center components, you must consider information about the following operations:

- call flow
- call rate per hour
- supervisor displays
- the number of agents
- busy hour call attempts

This section describes Symposium Express Call Center Release 3.0 performance and capacity measurement and analysis, considering

- the test procedure, including
 - an overview of system architecture
 - the performance testing configuration
 - test features
 - configuration parameters
 - workload parameters and definitions
- performance and capacity analysis results for
 - memory and CPU utilization
 - Real-time Displays (RTDs), Graphical Real-time Displays (GRTDs), and CPU performance
 - Meridian Mail
 - Voice Services
 - pcAnywhere
 - treatment script sizes

Note: This document does not include performance analysis for the Meridian1 (M1), Meridian 1 Internet Enabled (M1 IE), or the Succession Communication Server for Enterprise (CSE) 1000 (Succession CSE 1000) switches to which Symposium Express Call Center Server is connected. Refer to the customer documentation for the relevant switch.

Planning and capacity issues

For Symposium Express Call Center 3.0 to function at maximum performance and provide optimum flexibility, you must consider planning and capacity issues for the following:

- RTDs
- GRTDs
- Meridian Mail
- Voice Services and Prompt/Collect Digits
- pcAnywhere
- treatment scripts

Note: The Prompt/Collect Digits feature will only be available in a future release of Symposium Express Call Center.

In addition, depending on how the above components are configured, you must consider planning and capacity for:

- memory
- CPU

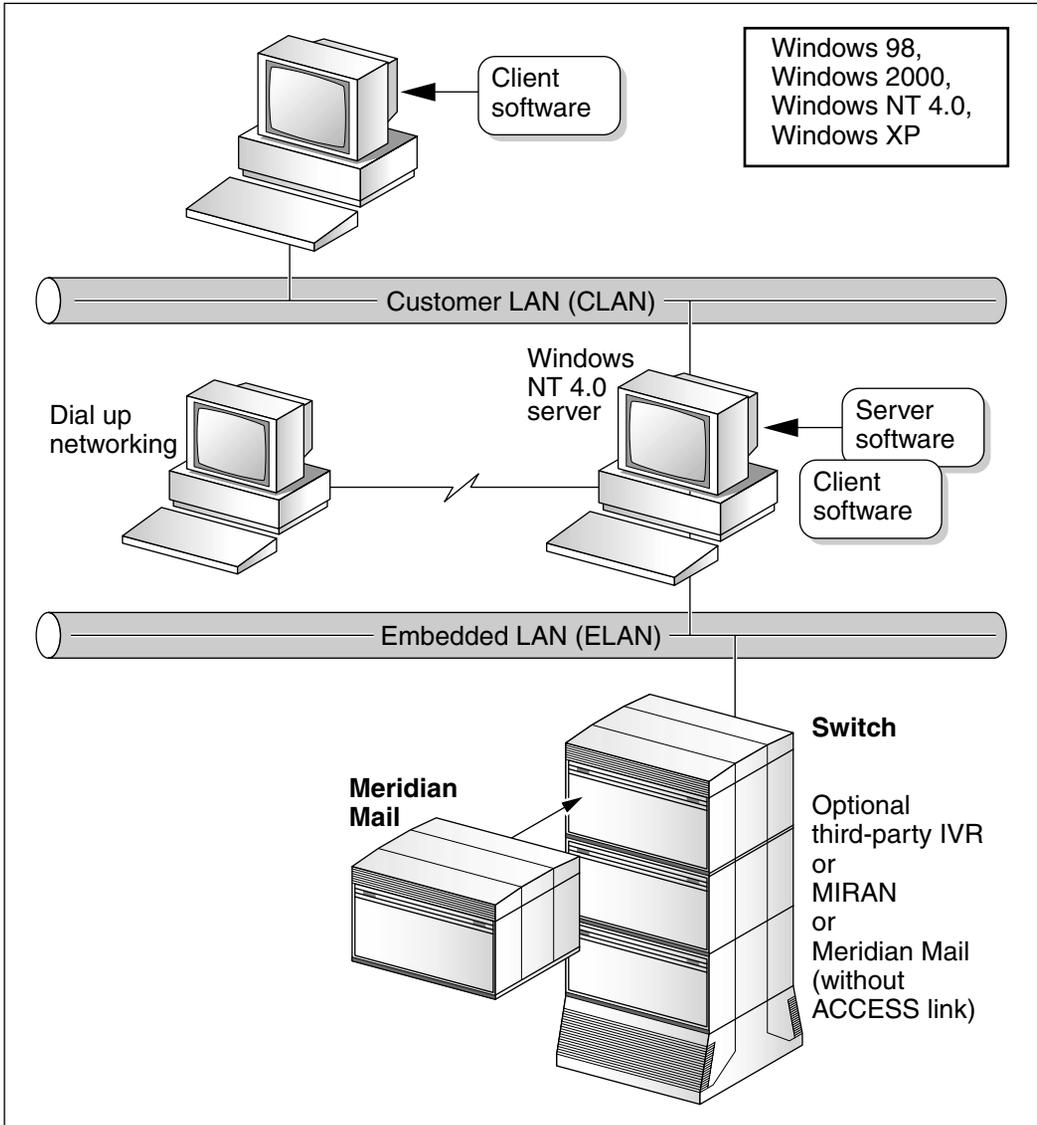
Test procedure

Introduction

This section describes the configuration setup in which performance testing and capacity measurement were carried out.

The impact that various features have on system performance is best understood through an overview of the system architecture.

The following diagram illustrates the system architecture:



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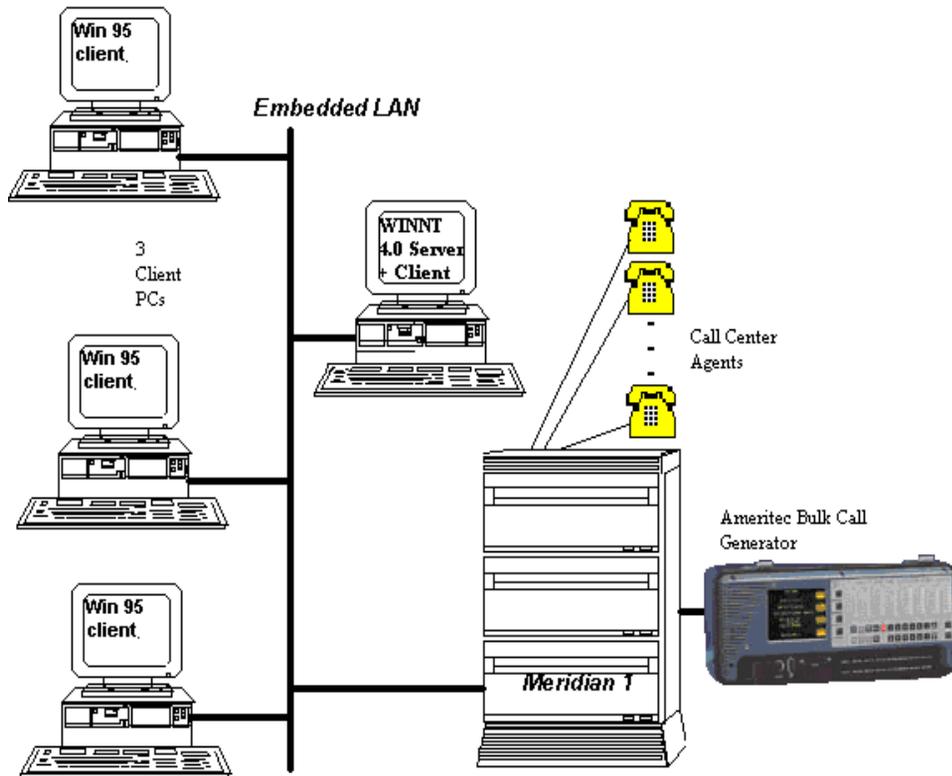
As calls come into the call center through the switch, the switch notifies the Symposium Express Call Center server. The server relays instructions to the switch on what to do with the call. If there is an agent free to answer a call, the server instructs the switch to present the call to the agent's phoneset.

As the switch is a real-time system, it does not wait indefinitely for the Symposium Express Call Center server to respond with instructions. A 4-second time-out is enforced by the switch. If there is no reply within 4 seconds, the switch gives the call a predefined default treatment so that call processing continues. In this way, there is a backup behavior for the call treatment if the Symposium Express Call Center server goes down or is disconnected from the switch.

This backup behavior operates only in particular circumstances. In normal operations, the Symposium Express Call Center server is expected to handle all calls coming into the call center. If there is a slowdown on the server, such that the server cannot respond back to the switch in the 4-second time limit, calls get the default treatment. There are a number of conditions in which the server may experience performance problems and may not respond back to the switch within the timeout limit. It is these situations that must be identified and avoided.

Performance testing configuration

The following setup was used for performance testing:



Test features

- An Ameritech Bulk Call Generator was set up with 40 channels connected to the M1 Option 11C. To generate 5000 calls per hour, the talk time was set to 62 seconds, and the wait time after disconnect was set to 46 seconds. Calls were started in groups of five channels.
- The Call Presentation for the 150 agent phonesets was set with call force so that calls would connect once they were presented to the phone.
- The calls generated by the Call Generator dialed different CDNs, so that depending on the CDN dialed, the call was queued to specific skillsets. Channels were divided into groups of five, and each one in the group dialed

the same CDN. With 30 groups of five channels, the calls were evenly distributed to 30 skillsets.

- Agents were divided into groups of five, and each agent in the group possessed the same skillset, as well as the Default_Skillset.

Workload parameters and definitions

Workloads were measured to analyze system performance at different capacity levels. The following definitions were used throughout the process:

- **call rate:** The average rate per hour of call arrivals to the Symposium Express Call Center system. The call arrival rate was measured in calls per hour, and is based on a uniform distribution of the calls (that is, constant inter-arrival times).
- **call duration:** The call duration related to how many agents are available to handle the specified call rate. For example, if the call rate is 60 calls per hour and there is only one agent, the call duration cannot be more than one minute or else calls begin to accumulate. On the other hand, if there were 60 agents, each agent can handle a call for up to an hour. In the tests, for 5000 calls per hour and 150 available agents, the call duration was 108 seconds.

There were two variable parameters:

- The call rate was varied by changing the wait time after disconnect on the Call Generator. This was to observe the effect of call rate on CPU usage.
- The number of sets of RTDs was increased with the first set run on the server. Each subsequent set of RTDs added was on a remote Windows NT PC.

Configuration parameters

Capacity and performance were measured on Symposium Express Call Center by using the following parameters:

- the maximum capacity workload
- the minimum hardware requirements

Table 1 Maximum possible configurations for Symposium Express Call Center 3.0

Maximum amount	Functionality
150	Active Agents
75 (Total Supervisor or RTD sessions)	Active Client Sessions
100	skillsets
75	CDNs
500	DNIS
2000	CLID
18 (3 per supervisor)	Active Real-time Displays
5000	Calls per hour

The call duration set for the call generator included

- talk time
- wait time between calls

The call routing measured was routed by CDN with no announcements.

It was anticipated that the RTDs running against the server would place a significant load on the CPU. Therefore, a series of measurements were made while varying the number of sets of RTDs. A set of RTDs consisted of

- an Agent Performance Display
- a Skillset Performance Display
- a Call Center Summary Display

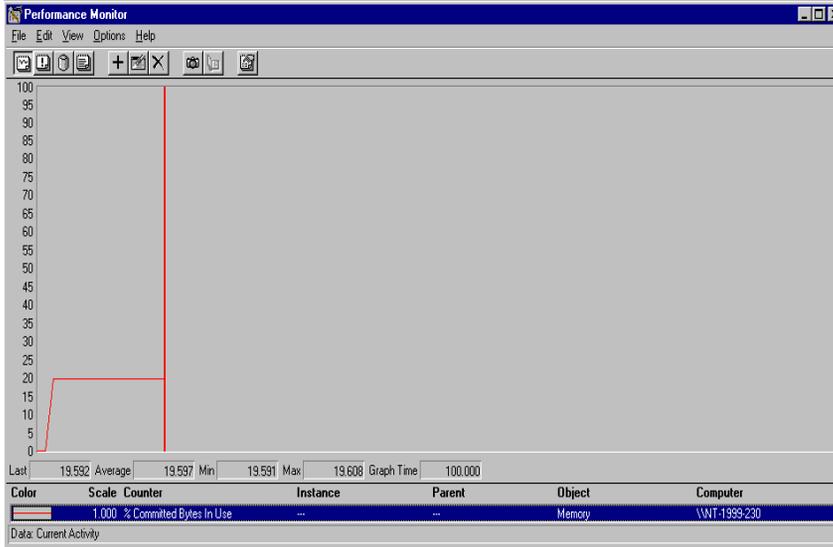
The performance impact of GRTDs running against the Symposium Express Call Center server also needed to be gauged. A series of measurements were done while varying the number of GRTDs connected to the Symposium Express Call Center server. Each GRTD consisted of one collection of 7 data windows. The seven data windows were

- three charts
- four billboards
- zero maps
- zero grids

The Data Update Rate was set to 2 seconds, and the Time Chart Period was set to 0.5 seconds. For more information on GRTD, refer to page 474.

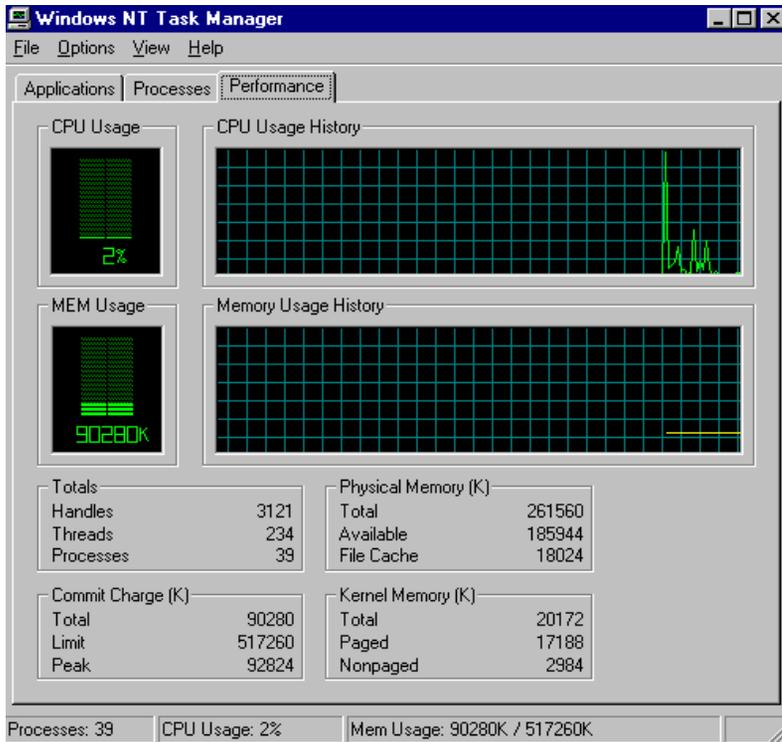
Performance monitor

The Performance Monitor was used to log performance statistics during the sustained traffic tests. The tool was set to log System, Memory, and Process objects over the duration of the tests. The following diagram illustrates the Performance monitor:



Task Manager

Initial memory measurements were taken using the Task Manager as illustrated in the following diagram:



The counter used for analysis was the Total Commit Charge. This counter indicates the virtual memory in use by all processes.

Analysis and results

Memory and CPU utilization

This section details performance results for specific configurations using the test procedures outlined on pages 449 to 455. To start, a configuration was set up and a base reading was taken.

Platform Configuration 1 (Server) and Platform Configuration (Client) show the base configuration:

Platform Configuration 1 (Server)

- 702t
- 350 MHz Pentium II Processor
- 256 Mbytes RAM
- 64 Mbytes IDE Hard Drive
- Integrated 10/100 NIC Card and 3Com Network Card
- IBM 17" monitor
- 24-speed CD-ROM
- Windows NT 4.0 Server with Service Pack 5
- Symposium Express Call Center Client and Server software build 03.21.05 with PEPs

Platform Configuration 2 (Client)

- Compaq Deskpro
- 266 MHz Pentium II Processor
- 64 Mbytes RAM
- 3 Gbytes IDE Hard Drive
- Integrated Compaq 10/100TX PCI NIC Card
- Compaq 17" monitor
- ATAPI 32X CD-ROM
- ATI 3D Rage Pro video card

- Windows 98
- Symposium Express Call Center Client Software
- Symposium GRTD software

Base reading

This section shows the base reading for memory and CPU utilization taken before any applications were initiated. See Table 2 below.

Table 2 Base reading for memory and CPU utilization

Totals		Physical memory (K)	
handles	N/A	total	N/A
threads	N/A	available	N/A
processes	N/A	file cache	N/A
Commit charge (K)		Kernel memory (K)	
total	N/A	total	N/A
limit	N/A	paged	N/A
peak	N/A	non-paged	N/A

Applications were gradually added to the base configuration and launched. The difference between the base reading and the new reading with the additional application indicated the virtual memory requirement of individual applications. This process is detailed in the following sections, and the results appear in the tables that follow.

Note: Recommendations for non-coresident client configurations are based on measurements done on the client/server coresident configuration.

Symposium Express Call Center Server (1)

On Platform Configuration 1 (see page 458), the following was installed:

- Symposium Express Call Center Server Software 03.21.05

Notes:

- There was no switch connection. The server was rebooted with all services started.
- Voice services were running.
- Scripts were activated.

Table 3 Results for Platform Configuration 1 - Symposium Express Call Center Server (1)

Totals		Physical memory (K)	
handles	12 065	total	261 492
threads	654	available	108 696
processes	59	file cache	15 060
Commit charge (K)		Kernel memory (K)	
total	289 080	total	14 652
limit	505 168	paged	8600
peak	383 152	non-paged	6052

Measured Average CPU Utilization was 2.7%.

Symposium Express Call Center Server (2)

On Platform Configuration 1 (see page 458), Symposium Express Call Center Server Software 03.21.05 was already installed (see Symposium Express Call Center Server [1] on page 458).

Notes:

- Voice Services were running.
- Scripts were activated.

The following changes were made to the existing configuration:

- The switch was connected but there was no call activity.

Table 4 Results for Platform Configuration 1 - Symposium Express Call Center Server (2)

Totals		Physical memory (K)	
handles	12 512	total	261 492
threads	648	available	138 724
processes	58	file cache	14 436
Commit charge (K)		Kernel memory (K)	
total	289 028	total	14 664
limit	505 168	paged	8592
peak	383 152	non-paged	6072

Measured Average CPU Utilization was 2.4%.

Note: The CPU Utilization is lower in Table 2 than in Table 1 because, in the Table 1 configuration, the server is constantly trying to make a connection to the switch.

Symposium Express Call Center Server (3)

On Platform Configuration 1 (see page 458), Symposium Express Call Center Server Software 03.21.05 was already installed (see Symposium Express Call Center Server [1] on page 458).

Notes:

- The switch was connected but there was no call activity.
- Voice Services were running.
- Scripts were activated.

The following changes were made to the existing configuration:

- pcAnywhere was launched with a remote control client connected on the CLAN.

Table 5 Results for Platform Configuration 1 - Symposium Express Call Center Server (3)

Totals		Physical memory (K)	
handles	12 720	total	261 492
threads	670	available	133 176
processes	59	file cache	14 404
Commit charge (K)		Kernel memory (K)	
total	293 976	total	14 716
limit	505 168	paged	8644
peak	383 152	non-paged	6072

Measured Average CPU Utilization was 6.8%.

Symposium Express Call Center Client/Server (1)

On Platform Configuration 1 (server) (see page 458), Symposium Express Call Center server software was already installed. On Platform Configuration 2 (client) (see page 458), Symposium Express Call Center client software was already installed.

Notes:

- Symposium Express Call Center Client Software 03.21.05 was installed.
- The switch was connected but there was no call activity.
- Voice Services were running.
- Scripts were activated.
- pcAnywhere was launched with a remote control client connected on the CLAN.

The following changes were made to the existing configuration:

- Symposium Express Call Center client was launched with the Main Window, the Alarm Monitor and three RTDs were running coresident on the server.

Table 6 Results for Platform Configuration 1 - Symposium Express Call Center Client/Server (1)

Totals		Physical memory (K)	
handles	14 211	total	261 492
threads	723	available	108 592
processes	69	file cache	14 592
Commit charge (K)		Kernel memory (K)	
total	371 064	total	15 028
limit	505 168	paged	8956
peak	383 152	non-paged	6072

Measured Average CPU Utilization was 13%.

Symposium Express Call Center Client/Server (2)

On Platform Configuration 1 (server) (see page 458), Symposium Express Call Center server software was already installed. On Platform Configuration 2 (client) (see page 458), Symposium Express Call Center client software was already installed.

Notes:

- Symposium Express Call Center Client Software 03.21.05 was installed.
- Voice Services were running.
- Scripts were activated.

The following changes were made to the existing configuration:

- The switch was connected with 1 call active and 24 agents logged on.
- pcAnywhere was not running.
- Symposium Express Call Center Client was launched with the Main Window. The Alarm Monitor was running coresident on the server. There were no RTDs.

Table 7 Results for Platform Configuration 1 - Symposium Express Call Center Client/Server (2)

Totals		Physical memory (K)	
handles	12 541	total	261 492
threads	675	available	49 788
processes	62	file cache	14 144
Commit charge (K)		Kernel memory (K)	
total	265 164	total	13 654
limit	505 168	paged	8008
peak	319 076	non-paged	5644

Measured Average CPU Utilization was 2%.

Symposium Express Call Center Client/Server (3)

On Platform Configuration 1 (server) (see page 458), Symposium Express Call Center server software was already installed. On Platform Configuration 2 (client) (see page 458), Symposium Express Call Center client software was already installed.

Notes:

- Symposium Express Call Center Client Software 03.21.05 was installed.
- The switch was connected with 1 call active and 24 agents logged on.
- Voice Services were running.
- Scripts were activated.
- pcAnywhere was not running.

The following changes were made to the existing configuration:

- Symposium Express Call Center Client was launched with the Main Window, the Alarm Monitor was running, and there were three RTDs running coresident on the server.

Table 8 Results for Platform Configuration 1 - Symposium Express Call Center Client/Server (3)

Totals		Physical memory (K)	
handles	13 102	total	261 492
threads	706	available	43 948
processes	65	file cache	13 976
Commit charge (K)		Kernel memory (K)	
total	302 300	total	13 804
limit	505 168	paged	8160
peak	319 076	non-paged	5644

Measured Average CPU Utilization was 3.6%.

Symposium Express Call Center Client/Server (4)

On Platform Configuration 1 (server) (see page 458), Symposium Express Call Center server software was already installed. On Platform Configuration 2 (client) (see page 458), Symposium Express Call Center client software was already installed.

Notes:

- Symposium Express Call Center Client Software 03.21.05 was installed.
- Voice Services were running.
- Scripts were activated.
- pcAnywhere was not running.
- Symposium Express Call Center Client was launched with the Main Window, the Alarm Monitor was running, and there were three RTDs running coresident on the server.

The following changes were made to the existing configuration:

- The switch was connected with no call activity.

Table 9 Results for Platform Configuration 1 - Symposium Express Call Center Client/Server (4)

Totals		Physical memory (K)	
handles	13 133	total	261 492
threads	703	available	43 720
processes	66	file cache	13 916
Commit charge (K)		Kernel memory (K)	
total	309 904	total	13 856
limit	505 168	paged	8168
peak	319 076	non-paged	5688

Measured Average CPU Utilization was 2.5%.

Symposium Express Call Center Client/Server (5)

On Platform Configuration 1 (server) (see page 458), Symposium Express Call Center server software was already installed. On Platform Configuration 2 (client) (see page 458), Symposium Express Call Center client software was already installed.

Notes:

- Symposium Express Call Center Client Software 03.21.05 was installed.
- Voice Services were running.
- Scripts were activated.
- pcAnywhere was not running.
- Symposium Express Call Center Client launched with the Main Window, the Alarm Monitor was running, and three RTDs were running coresident on the server.

The following changes were made to the existing configuration:

- The switch was connected with 2400 calls per hour.

Table 10 Results for Platform Configuration 1 - Symposium Express Call Center Client/Server (5)

Totals		Physical memory (K)	
handles	13 640	total	261 492
threads	705	available	91 800
processes	67	file cache	14 120
Commit charge (K)		Kernel memory (K)	
total	315 532	total	14 588
limit	505 168	paged	8584
peak	320 616	non-paged	6004

Measured average CPU Utilization was 14%.

RTD, GRTD, and CPU performance

Introduction

The performance impact of Symposium Call Center RTDs and GRTDs running on the Symposium Express Call Center server was measured.

RTDs

A series of measurements were made while varying the number of sets of RTDs. A set of RTDs consisted of

- an Agent Performance Display
- a Skillset Performance Display
- a Call Center Summary Display

GRTDs

A series of measurements were done while varying the number of GRTDs connected to the Symposium Express Call Center server. Each GRTD consisted of one collection of seven data windows. The seven data windows were

- three charts
- four billboards
- zero maps
- zero grids

The Data Update Rate was set to 2 seconds, and the Time Chart Period was set to 0.5 seconds.

Formulas

The following formulas were used for calculating CPU utilization based on the number of RTD and GRTDs running, plus the server specification:

nRTD =number of sets of RTDs not including the set on the server node

nGRTD =number of sets of GRTDs

RTD_CPU =percentage CPU used by non-coresident RTDs = 3% * nRTD

GRTD_CPU =percentage CPU used by GRTDs = 4% * nGRTD

Calls_CPU =percentage CPU used by the load traffic of incoming calls = 5 % for 5000+ call/hr

CoResRTD_CPU =percentage CPU used by the set of RTDs running on the server node = 5%

Based on the measurements (see pages 459–467), and the recommendation that the CPU utilization remain under 70%:

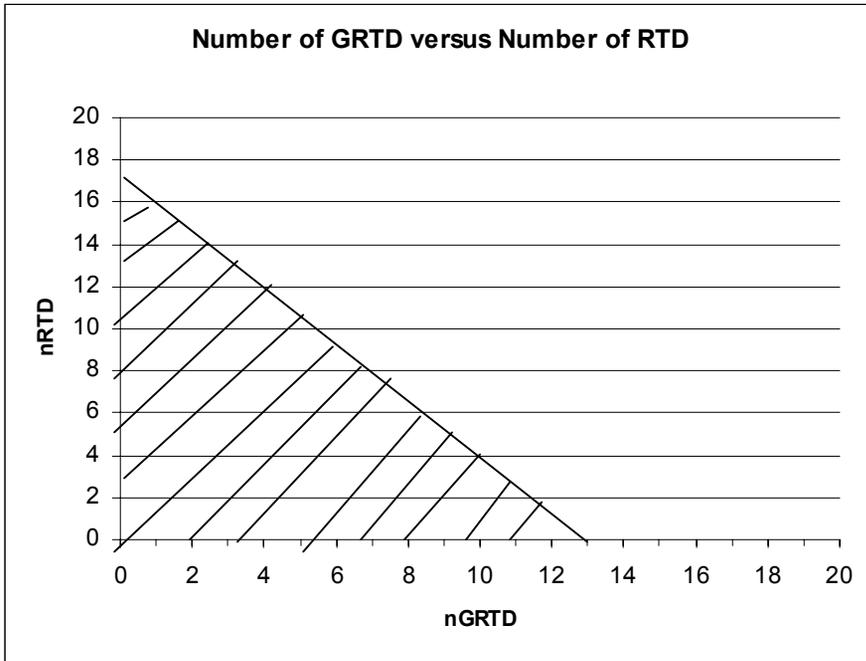
$$\text{RTD_CPU} + \text{GRTD_CPU} + \text{Calls_CPU} + \text{CoResRTD_CPU} \leq 70\%$$

$$2 * \text{nRTD} + 4 * \text{nGRTD} + 5 + 5 \leq 70$$

There is also an imposed limit of 75 client sessions that determines the number of possible RTDs and GRTDs:

$$\text{nRTD} + \text{nGRTD} \leq 75$$

However, this formula is redundant for the specified computer on which the tests were carried out, as the limits imposed by the previous formula are lower.



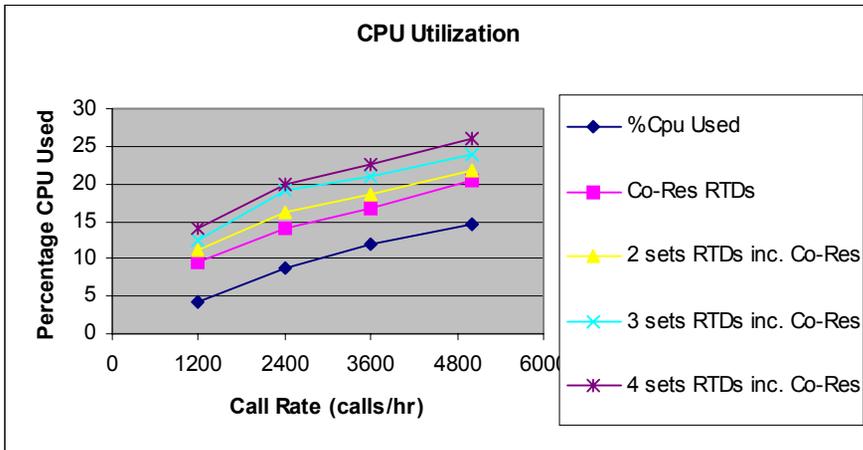
CPU performance

The effect of the following components on CPU performance are described:

- call rate
- RTDs
- call rate with GRTD
- GRTDs

Call rate

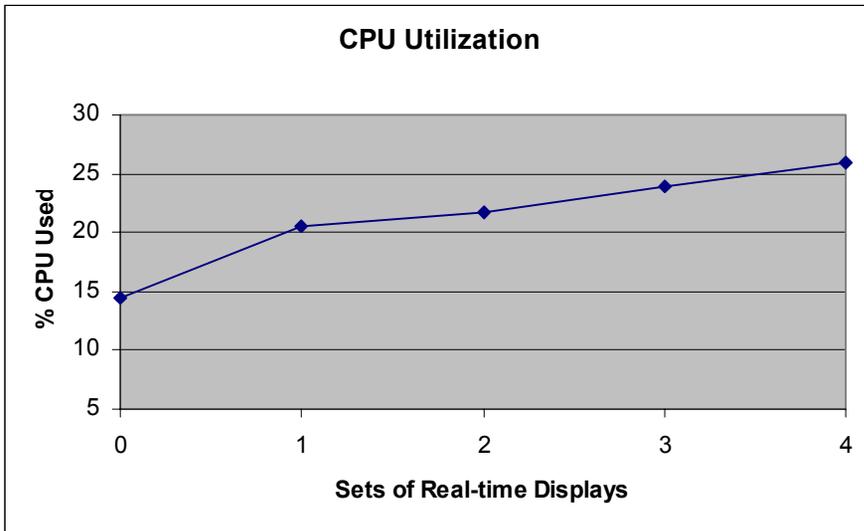
The performance testing configuration (see page 451) was measured with 100 skillsets configured and 150 agents logged on. The call rate was varied from 1200 to 5000+ calls per hour. The platform used was Configuration 1 (see page 458).



The above graph shows the CPU utilization of various call rates with a range of 0 to 4 sets of RTDs running. All data points are from measured values. The measurement shows a CPU consumption of 14.5% for the maximum load of 5000 calls per hour with no RTDs running.

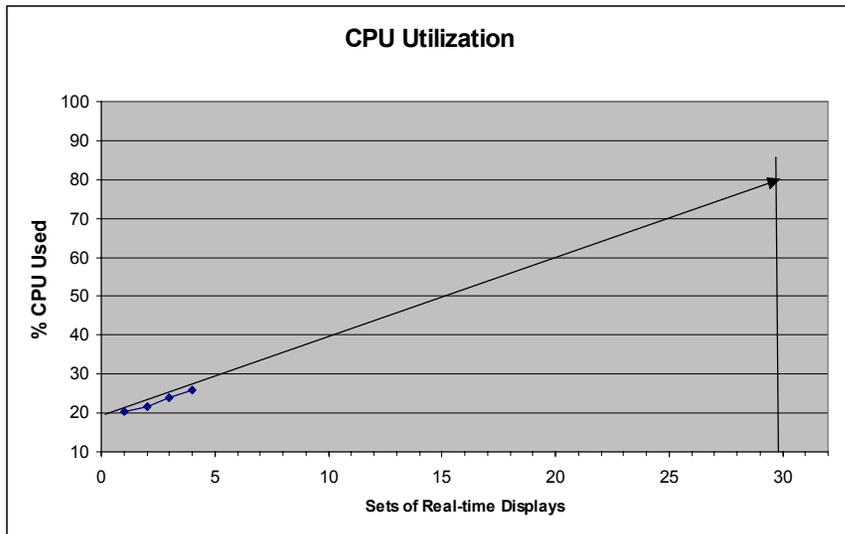
RTDs

The performance testing configuration (see page 451) was measured with 100 skillsets configured and 150 agents logged on. The number of sets of RTDs was varied from 0 to 4 with the first on the server node. The call rate was set at 5000+ calls per hour. The platform used was Configuration 1 (see page 458).



The above graph shows the CPU utilization of various RTDs connected to the server with 5000+ calls per hour. All data points are from measured values. Each set of RTDs consisted of an Agent Status Display with 150 rows updating with a 2-second refresh rate, a Skillset Performance Display with 100 rows updating at a 5-second refresh rate, and a Call Center Summary Display with one row updating at a 5-second refresh rate.

The data was extrapolated to determine what the effect of adding extra sets of RTDs would be. The results are illustrated in the following graph:

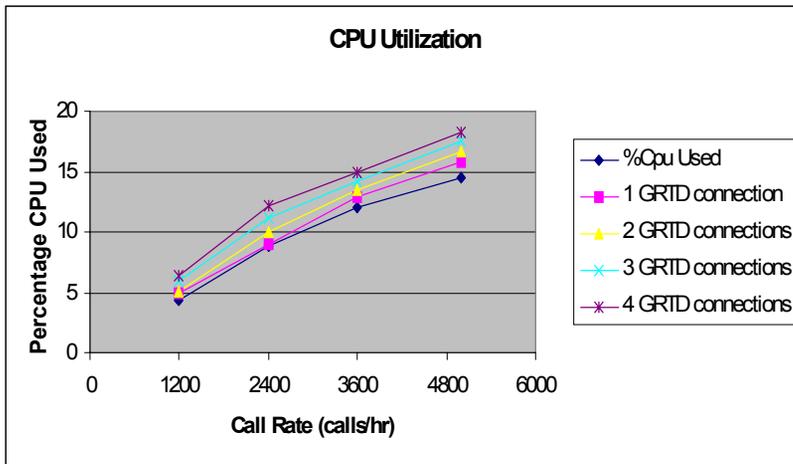


The above graph shows that with 30 RTDs, the CPU is still at 80% utilization. Nortel Networks recommends that the CPU utilization be kept under 70% to handle any possible burst traffic. At 70% CPU utilization, approximately 25 sets of RTDs can be supported. This is the best estimate that can be made with the data obtained. There is, however, an inherent danger in using linear extrapolation to derive the estimates. As CPU utilization increases, the response time to send messages back to the switch becomes longer. There may be a point before 70% CPU utilization is reached when the response time is no longer acceptable and the calls start to get M1 Default treatment.

The slope of the above graph indicates the percentage CPU per set of RTDs, and is observed to be about 2% CPU per RTD. This does not include the set of RTDs running on the server, which are seen to take up 6% CPU.

Call Rate with GRTD

The performance testing configuration (see page 451) was measured with 100 skillsets configured and 150 agents logged on. The call rate was varied from 1200 to 5000+ calls per hour. The platform used was Configuration 1 (see page 458).

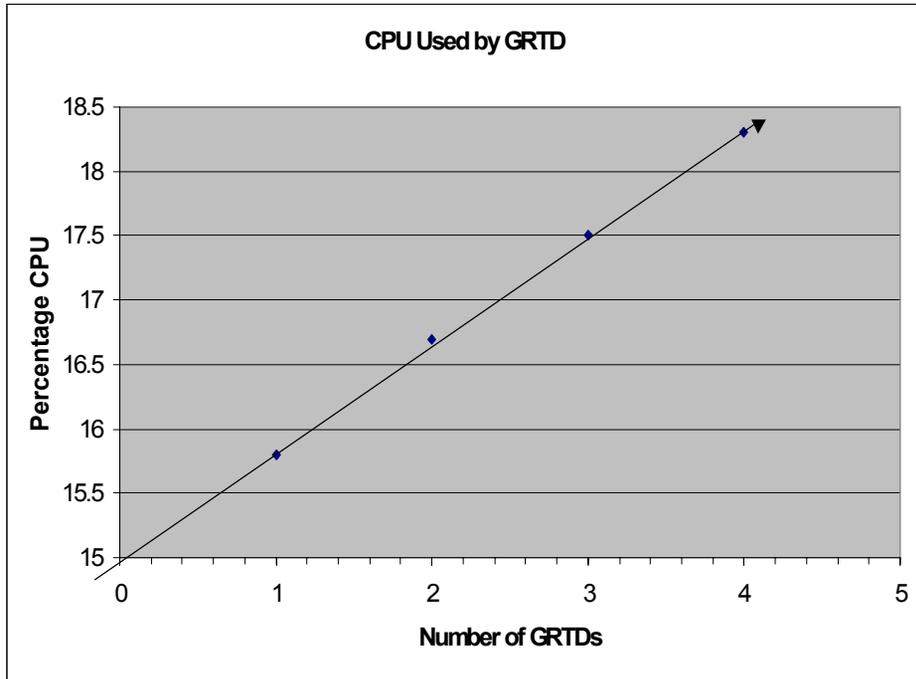


The above graph shows the CPU utilization of various call rates with a range of 0 to 4 GRTD clients running. All data points are from measured values.

GRTDs

The performance testing configuration (see page 451) was measured with 100 skillsets configured and 150 agents logged on. The number of sets of GRTDs was varied from 1 to 4. The call rate was set at 5000 calls per hour. The hardware platform used was Hardware Configuration 1 (see page 458). The hardware platform used for the Client PC was Configuration 2 (see page 458). Each GRTD consisted of one collection of seven data windows. The seven data windows were

- three charts
- four billboards
- zero maps
- zero grids



The above graph shows the CPU utilization of various numbers of GRTDs connected to the server with approximately 5000 calls per hour load. All data points are from measured values. From the data, you can use linear extrapolation to determine the effect of each GRTD on CPU use. The slope of the above graph indicates that the percentage CPU per GRTD is less than or equal to 1%.

Meridian Mail engineering

Introduction

This section describes the requirements to configure Meridian Mail for use with Symposium Express Call Center. Meridian Mail can be used to play announcements if the Voice Services feature is not used.

Rules for Voice Port Partitioning

To allow for the proper operation of Symposium Express Call Center 3.0 and Meridian Mail, the voice ports used by Symposium Express Call Center 3.0 must be dedicated to the Symposium Express Call Center 3.0 application.

Note: If you “front end” a Symposium Express Call Center 3.0 CDN with a voice menu, it should be accessed via this ACD DN. These front-end ports are not acquired by Symposium Express Call Center 3.0

The call center must be configured so that the Symposium Express Call Center 3.0 script command for call announcements and other Meridian Mail calls do not use the same ACD DN. Only one caller can listen to an announcement at one time when using Meridian Mail to play announcements.

Port requirements

To support voice processing, Meridian Mail requires dedicated voice ports. A voice port is defined for Meridian Mail as an RCS (517 or 2009) phoneset. Symposium Express Call Center cannot share voice ports with any other Meridian Mail application. The directory number, an IVR ACD-DN, routes the caller to a Meridian Mail treatment.

Announcements (configured through the Call Routing Wizard) generate port requests. Symposium Express Call Center uses the Give IVR (GIVR) command to play announcements when using Meridian Mail.

GIVR port computations

For the predefined workload in the performance testing configuration (see page 451), the number of voice ports required was 0 (for 5000 CPH) since no announcements were played.

The number of Meridian Mail voice ports required for GIVR voice service depends on

- the rate of GIVR port requests
- the duration of the GIVR voice session/treatment
- the Grade of Service (GOS) - the probability that requests will be delayed by more than a certain number of seconds. For Meridian Mail, the standard GOS is 5% probability that the calls will be delayed for more than 6 seconds (that is, 95% of the calls incur less than a 6-second delay)

To determine the rate of GIVR services, use the following formulas:

$aGIVRPerCall$ = average number of announcements played per call

$CallRate$ = number of calls per hour

$GIVR_Rate$ = $CallRate * aGIVRPerCall$

$nGIVR_Duration$ = average duration of an announcement played

Use the nearest values for IVR rate and duration ($GIVR_Rate$ and $nGIVR_Duration$) to access Table 11 to determine the number of ports required:

$nGIVR_Ports$ = ports from Table 11

Table 11 Number of ports required based on call rate, and number and duration of IVRs

GIVR_Rate	nGIVR_ Duration (Sec)					
	15	30	45	60	75	90
Number of calls per hour	Number of ports	Number of ports	Number of ports	Number of ports	Number of ports	Number of ports
30	2	2	2	2	2	2
60	2	2	2	5	5	5
90	2	2	5	5	5	6
100	2	2	5	5	6	6
125	2	5	5	6	6	8
250	4	5	7	8	11	12
500	5	8	11	13	17	20
1000	8	13	18	23	29	35
2000	13	23	32	41	52	62
3000	18	32	45	59	74	89
4000	23	41	59	76	97	115
5000	28	50	72	93	119	141

Note: Shaded entries in the table are not valid for Meridian Mail. Meridian Mail does not support more than 96 ports in Symposium Express Call Center. The number of voice ports recommended in the above table includes only those specifically required for use by Symposium Express Call Center. These numbers do not include voice ports required if Meridian Mail is being used to provide front end treatment to a call before it enters the CDN(s) acquired by Symposium Express Call Center. The additional voice ports required for front end treatment can be obtained in the same way as indicated above for Symposium Express Call Center treatment.

Voice Services requirements

Introduction

This section describes the requirements to configure Voice Services processing for use with Symposium Express Call Center. The Voice services feature is a keycoded option. A voice services card installed in the Meridian 1 switch provides front-end voice processing capability to Symposium Express Call Center.

Treatments can be

- comfort messages
- voice menus
- prompt collect digits/transfer

Voice ports carry speech to Meridian Mail, the Voice Services card, or an IVR system. Each Voice Services port must be configured and acquired in Symposium Express Call Center. For information on configuring Voice Services ports, see Chapter 8, “Configuring a Voice Services card,” on page 351.

Announcements (configured through the Call Routing Wizard) generate voice port requests. Symposium Express Call Center uses the GIVR command to play announcements when using the Voice Services card.

GIVR Ports computations

The Voice Services ports required for GIVR voice service depend on

- port utilization not exceeding 70%
- the rate of port requests
- the duration of the GIVR voice session/treatment
- the Grade of Service (GOS)—for Voice Services, the probability that requests will be delayed by more than a certain number of seconds.

The number of Voice Services voice ports required for GIVR voice service depends on the rate of GIVR requests and the duration of the GIVR treatment. To determine the rate of GIVR services, use the following formulas:

aGIVRPerCall =average number of announcements played per call

CallRate =number of calls per hour

GIVR_Rate =CallRate * aGIVRPerCall

nGIVR_Duration =average duration of an announcement played

Table 12 indicates the number of Voice Services voice ports required based on the call rate, the number of IVRs, and the duration of IVRs. Port utilization was calculated using an integrated Voice Services loadware utility incorporated into the loadware version 1.04. The utility monitors each Voice Services port for activity, and calculates the utilization of each port for the period of time that the utility is running.

Table 12 Meridian Mail voice port calculations

GIVR_Rate	nGIVR_ Duration (Sec)					
	15	30	45	60	75	90
calls per hour	ports	ports	ports	ports	ports	ports
	5	10	15	20	25	30
100	2	2	2	2	2	2
200	2	2	2	5	3	3
400	2	2	3	4	5	6
800	2	4	6	8	10	12
1000	3	5	8	10	13	16
2000	5	10	15	21	26	32
3000	8	15	22	30	37	46
4000	10	20	30	40	51	60
5000	13	25	37	50	63	-
6000	15	30	-	-	-	-
7000	17	35	-	-	-	-
8000	20	-	-	-	-	-
9000	23	-	-	-	-	-
10 000	25	-	-	-	-	-
15 000	-	-	-	-	-	-
20 000	-	-	-	-	-	-

Note: Shaded entries in the above table are not valid configurations for Voice Services and Symposium Express Call Center Release 3.0.

Limits/restrictions

Table 11 illustrates the system's limits. For example, at a rate of 9000 calls of 5-second duration, the system requires 23 ports.

Prompt/collect digits limits/restrictions

Note: The Prompt/Collect Digits feature will only be available in a future release of Symposium Express Call Center.

Voice Services prompts can be configured to collect multiple digits from the customer.

The maximum number of digits that can be collected by Voice Services and sent to TAPI is set at 120. This value also includes any colon values in multiple digit collection. Colons are used to separate groups of digits. For example, the following stream, containing seven digits and three separators (colons) is considered to be ten digits long: 12:34:56:7.

There is no limitation on the number of prompt/collect digit chains (that is, a group of prompt/collect digit treatments with prompt/collect digit after treatments) that can be specified. This is to allow maximum flexibility. The total maximum collection (including separator colons) must not exceed 120 digits.

pcAnywhere requirements

pcAnywhere launch and RAS Dialup were tested on the Platform Configuration 1 (server) with and without traffic load. The following CPU usage percentages were noted:

1. No Traffic

While CPU usage was fluctuating between 7-17% for a period of time, a dial connection was initiated from a remote PC.

When the connection was made, CPU usage rose to approximately 20% and then stabilized back to the original 7-17% mark. No noticeable additional CPU processing was noted.

With the dialup connection active, a pcAnywhere session was initiated on the remote client. When the session connected, CPU usage rose to 63% but then stabilized between 7-17% again. When actions were initiated, CPU increased as expected.

2. Traffic - 5000 calls per hour with 50 agents logged on

While CPU usage was fluctuating between 21-33% for a period of time, a dial connection was initiated from a remote PC.

When the connection was made, CPU usage rose to approximately 45%, but then continued between 21-33%.

When pcAnywhere connection launched, usage increased to 63% when connection was made, and then rose to 100% when actions were performed. The same increases were noted when the coresident client was launched without any connections.

Through the pcAnywhere connection, the coresident client was launched with three RTDs. The usage increases were similar to those noted without a dial-up connection.

Conclusions

The addition of pcAnywhere to the system does have additional CPU overheads when the session is active. However, from the testing conducted, these overheads are minimal and did not affect call processing under load.

(See “Memory and CPU utilization” on page 458 for other pcAnywhere measurements.)

Treatment script sizes

Introduction

The instructions that relate to a particular type of call, caller, or set of conditions, such as time of day or day of week are contained in scripts. Symposium Express Call Center 3.0 contains a set of scripts. It is also possible to create and edit scripts using the Call Treatment and Routing wizards to configure and validate scripts.

The maximum number of characters for an entire treatment script is set at 30 000. This limit must not be exceeded.

To calculate the size of the script, use the following formulas:

Master script size	=	Size of miscellaneous commands + size of CLID block + size of DNIS block + size of CDN block
Size of miscellaneous commands	=	Approximately 2250 characters
size of CLID block	=	Start of CLID block (41 characters) + ((Number of treatments routed)*32) +((Number of CLIDS)*(Number of digits in CLID + 1)+ (Number of CLIDS)*(Number of digits in CLID + 1).....) + End of CLID block(22 characters)
size of DNIS block	=	Start of DNIS block (41 characters) + ((Number of treatments routed)*32) +((Number of DNIS)*(Number of digits in DNIS + 1)+ (Number of DNIS)*(Number of digits in DNIS + 1).....) + End of DNIS block(22 characters)
size of CDN block	=	Start of CDN block (67 characters) + ((1 treatments)*22) +((1CDN)*(Number of digits in CDN + 1) + End of CDN block(22 characters)

Example

By using the example of a script that routes to one treatment using a CLID of 16 digits, routes to one treatment using a DNIS of 16 digits, and also routes to one treatment using a 4-digit CDN, and by using the above formulas, the size of the script can be calculated as follows:

$$\text{Size} = 2250 + (41 + (1 * 32) + (1 * 17) + 22) + (41 + (1 * 32) + (1 * 17) + 22) + (67 + (1 * 22) + (1 * 5) + 22)$$

$$\text{Size} = 2250 + (41 + 32 + 17 + 22) + (41 + 32 + 17 + 22) + (67 + 22 + 5 + 22)$$

$$\text{Size} = 2250 + 112 + 112 + 116$$

$$\text{Size} = 2590$$

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.

ACD call

See Automatic call distribution call.

ACD-DN

See Automatic call distribution directory number.

ACD routing table

See Automatic call distribution routing table.

acquired resource

A resource configured on the switch that is under the control of the Symposium Express Call Center server. Resources must be configured with matching values on both the switch and the Symposium Express 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. For example, the activity code 720 may 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.

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.

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.

Automatic call distribution directory number

DNs associated with an ACD group. Calls made to these DNs are distributed to agents belonging to the group, based on the ACD routing table on the switch.

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 Express Call Center are queued to ACD groups and handled by available 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 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 calls can be presented to an agent whose secondary DN is active, 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

The way Symposium Express Call Center handles 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.

Calling Line Identification

This is 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.

CDN

See controlled directory number.

CLAN

See Customer local area network.

CLID

See Calling Line Identification.

client

The part of Symposium Express Call Center that runs on a personal computer or workstation and relies on the server to perform some operations. *See also* server.

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 Express Call Center. When a call arrives at this number, the switch notifies the application and waits for routing instructions, which are performed by scripts in Symposium Express Call Center.

customer administrator

A user who is responsible for maintaining Symposium Express Call Center.

Customer local area network

The LAN to which your corporate services and resources connect. Symposium Express Call Center and the client both connect to the CLAN. Third-party applications that interface with the server also connect to this LAN.

D**DBMS**

Database Management System

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.

desktop user

A configured user who can log on to Symposium Express Call Center from a client PC.

DHCP

See dynamic host configuration protocol.

Dial-Up Networking

See Remote Access Services.

Dialed Number Identification Service

An optional service that allows Symposium Express Call Center 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 appears on the phoneset, can prepare a response according to the DNIS.

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.

DN

See directory number.

DN call

See directory number call.

DNIS

See Dialed Number Identification Service.

driver

A program that controls a device. Each device, whether it is a printer, disk drive, or keyboard, must have a driver program. A driver acts like a translator between the device and the programs that use the device.

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. A DLL can be used by several applications at the same time.

E**ELAN**

See embedded local area network.

embedded local area network

A dedicated Ethernet TCP/IP LAN that connects Symposium Express Call Center and the switch.

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.

I**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 numbers separated by periods. Each number can be 0 to 255. For example, 1.160.10.240 could be an IP address.

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.

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.

local skillset

A skillset that can be used at the local site only. *See also* skillset.

M**M1**

Meridian 1 switch

Meridian Mail

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

MLS

See Symposium 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**network interface card**

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

NPA

See Number Plan Area.

Number Plan Area

Area code

O**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.

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 Express Call Center 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.

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.

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.

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.

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**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.

second-level threshold

The value used in display thresholds that represents the highest value of the normal range for a given statistic.

senior supervisor

A senior supervisor can perform all the tasks associated with a supervisor. However, senior supervisors can view all call center operations under the control of each supervisor as well as the configuration properties of all agents in the call center, not only the agents assigned to him or her. *See also* supervisor.

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. The Symposium Express 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.

site

A system using Symposium Express Call Center that can be accessed using SMI.

skillset

A group of capabilities or knowledge required to answer a specific type of call.

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 may 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.

supervisor

A user who manages a group of agents. *See also* senior supervisor.

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 Express Call Center. *See also* acquired resource.

Symposium Express Call Center call

A call to a CDN that is controlled by Symposium Express Call Center. The call is presented to the Incalls key on an agent's phoneset.

Symposium Link Services

A communications facility that provides an interface between the switch and a third-party host application.

T**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.

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**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**voice port**

A connection from a telephony port on the switch to a port on the IVR system.

Voice Processing Server

A card installed in the switch that provides front-end voice processing capability to Symposium Express Call Center. The VPS card provides similar functionality to Meridian Mail. However, the VPS card enables you to play recorded announcements and voice menu options so that you can collect customer-entered data, or to inform the caller of his or her position in queue, or of the amount of time the caller can expect to wait before his or her call is answered.

VPS

See Voice Processing Server.

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.

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Symposium Express Call Center

Product release 3.0

Planning, Installation, and Administration Guide

297-2183-102

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Symposium Express Call Center

Planning, Installation, and Administration Guide

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Publication number:	297-2183-102
Product release:	3.0
Document release:	Standard 3.0
Date:	September 2002

