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Nortel Networks Symposium Web Center Portal

Installation and Administration Guide

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Nortel Networks Symposium Web Center Portal

Installation and Administration Guide

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Chapter 1

Getting started

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About this guide

Introduction

The *Nortel Networks Symposium Web Center Portal Installation and Administration Guide* provides step-by-step instructions to install and configure Symposium Web Center Portal. This guide also provides administrative procedures to maintain Symposium Web Center Portal.

Distribution of this guide

This document is available only in electronic .pdf file format on the documentation CD-ROM that is supplied with the Symposium Web Center Portal Release 3.0 software.

You can view this guide online using Acrobat Reader, or you can print the guide in whole or in part for individual use.

Related documentation

Once you install Symposium Web Center Portal, use the *Nortel Networks Symposium Web Center Portal User Guide for Agents and Supervisors*, available on the documentation CD-ROM, to learn how to use the Agent Workbook.

Online Help

Symposium Web Center Portal Release 3.0 software provides the following online Help:

- Symposium Web Center Portal Release 3.0 Online Help for Administrators
- Symposium Web Center Portal Release 3.0 Online Help for Agents
- Symposium Web Center Portal Release 3.0 Online Help for Customers (Web Communication Manager)

Assumptions

This guide assumes that the following software is installed, configured, and working correctly:

- Nortel Networks TAPI Service Provider
- POP3 compatible e-mail server
- Internet Information Server (IIS) 4.0

This guide does not provide installation or configuration instructions for these applications. For instructions, refer to the documentation that comes with these applications.

Additionally, this guide assumes that your switch and agent PCs are configured for use with TAPI. For instructions, refer to your TAPI Service Provider documentation.

Who should read this guide

This guide is for system administrators and technical support personnel who are responsible for installing, configuring, and administering Symposium Web Center Portal.

Skills you need

To use this guide and Symposium Web Center Portal effectively, you must have experience with computers, telephony products, databases, the Internet, Windows NT, TAPI, and Symposium Call Center Server.

ATTENTION

Only qualified information systems personnel should perform maintenance and upgrading to this product.

About Symposium Web Center Portal

Introduction

Symposium Web Center Portal Release 3.0 is part of Nortel Networks' Symposium suite of applications. This product allows you to receive, route, track, and respond to customer requests over the Internet.

Nortel Networks Symposium Web Center Portal is a client/server call center application that expands call center e-mail capabilities to allow agents to view, respond to, and track requests from the Internet. Unlike conventional e-mail requests to a single e-mail account, Symposium Web Center Portal lists all of your customers' requests, and records all of your agents' responses with the initial request. This allows you to measure and control the volume of traffic from the Internet. Supervisors and administrators can view both real-time displays of call center activities, as well as run historical reports.

You can use Symposium Web Center Portal on its own or as an add-on to Symposium Call Center Server or Symposium Express Call Center. Symposium Web Center Portal also works with or without TAPI or the Dynamic Transaction Handler (DTH). For more information, see "Symposium Web Center Portal and the Symposium Call Center Server environment" on page 468, and "Symposium Web Center Portal and the Symposium Express Call Center environment" on page 472.

Symposium Web Center Portal features

Multiple ways to respond to your customers' inquiries

Symposium Web Center Portal agents can respond to transaction requests through a variety of media, including callback responses, e-mail, Internet text chat, and form sharing. The agent desktop software for Symposium Web Center Portal provides automation for these responses to eliminate repetitive actions, such as addressing an e-mail or typing a common response in text chat. As a result, it can reduce agents' handling time, fatigue, and mistakes.

The agent/client interface presents the agent with a browser-based graphical user interface. Agents can use it to respond to customers' requests over the telephone, by e-mail, or via the Web.

Reporting and real-time displays

Symposium Web Center Portal's reporting provides transaction statistics for skillsets, agents, and dates. Real-time reporting provides real-time statistics for Symposium Web Center Portal transactions, and allows supervisors to get an overview of the agent's performance.

Dynamic Transaction Handler

The Dynamic Transaction Handler (DTH) allows agents to operate in a blended mode. The blended mode allows agents to process telephone calls, e-mails, and web-based requests from customers from the Agent Workbook on their PCs.

When a customer submits an e-mail or web-based request to the Symposium Web Center Portal, the information is stored in the Symposium Web Center Portal database. The DTH scans the database for any new unprocessed transactions. When the DTH finds a new transaction, it creates a TAPI call to the switch. The TAPI call is presented to Symposium Call Center Server (or Symposium Express Call Center). Symposium Call Center Server routes the calls on to the CDN or ACD DN for the Symposium Web Center Portal skillset. The TAPI call, containing the DTH-added data (transaction ID and mode), is blended into the call center's existing ACD call traffic. The call can then be presented to the appropriate agent's phoneset and PC.

If you do not use the DTH in your Symposium Web Center Portal system, agents can pull e-mail or web-initiated transactions by selecting a transaction from the list presented to them on the Agent Workbook.

Web Communication Manager

The Web Communication Manager is the component of Symposium Web Center Portal that allows agents and customers to communicate over the Internet via Text Chat and Web page sharing.

Symposium eMail Manager

The Symposium eMail Manager is the component of Symposium Web Center Portal that integrates Internet e-mail messages into the call center agent's work flow.

System components

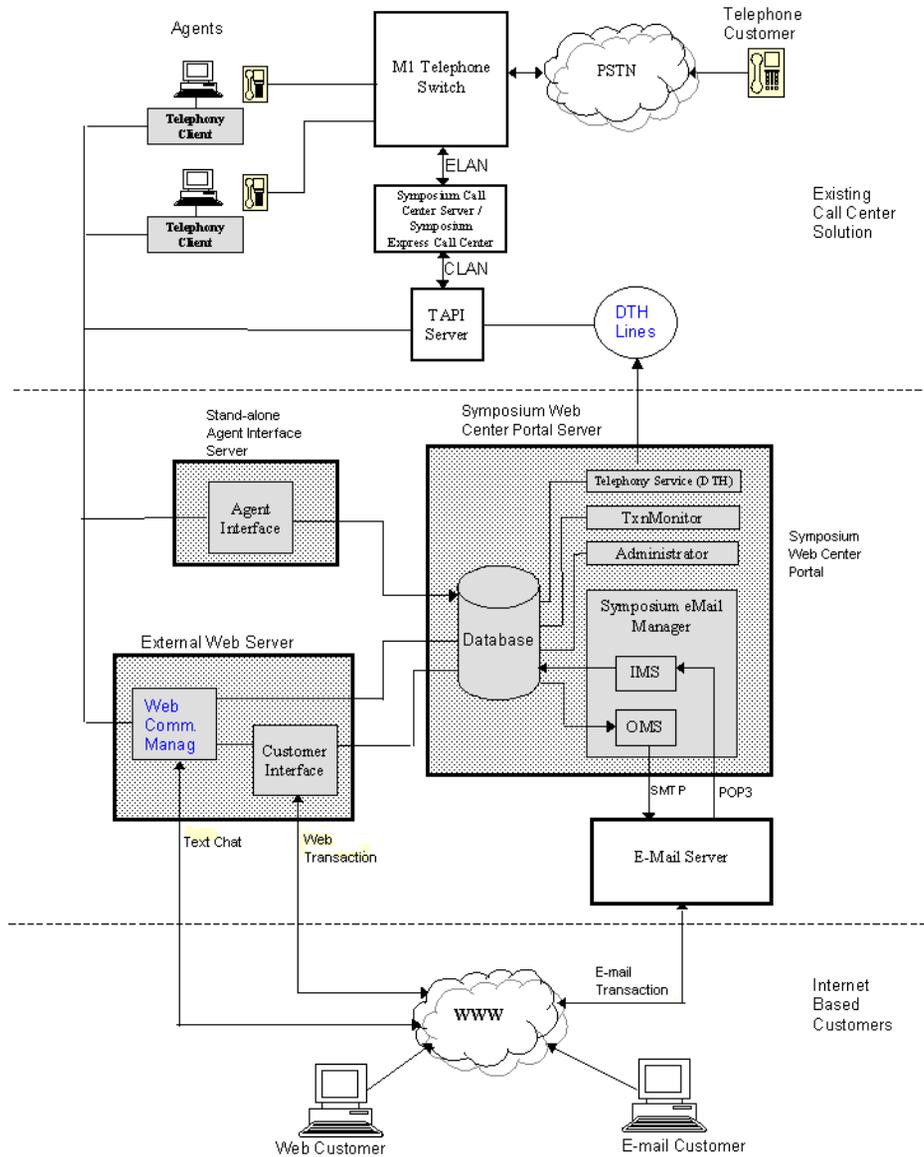
The diagram on page 20 illustrates a Symposium Web Center Portal configuration with a stand-alone Agent Interface Server—this is only necessary if greater than 50 simultaneous agents are logged on to Symposium Web Center Portal or more than 600 transactions are handled per hour. The alternative is to have the Agent Interface Server co-reside with the Symposium Web Center Portal database component. For more information, refer to “Supported configurations” on page 24.

Symposium Web Center Portal consists of the following eight components:

- **Symposium Web Center Portal Database** This component stores all call center activity. All incoming e-mails, web requests, and all of the associated responses are stored in a structured format within the database.
- **Symposium eMail Manager** This component connects to the e-mail server at regular intervals. During each connection, all of the configured mailboxes are accessed. E-mails from the customer are read from the e-mail server, processed, and then stored in the database. Outgoing e-mails generated from the e-mail responses stored in the database are sent to the e-mail server.
- **Symposium Web Center Portal Agent Interface** This component is installed on the Symposium Web Center Portal server or on the Agent Interface server. Agents use Internet Explorer to connect to the Agent Interface to view and respond to e-mails and web requests.
- **Symposium Web Center Portal Administrator** This component is installed on the Symposium Web Center Portal server or on both the Symposium Web Center Portal server and on a separate PC for remote access. The Symposium Web Center Portal Administrator provides administrative and management capabilities.
- **Symposium Web Center Portal Telephony Service** This component includes the Dynamic Transaction Handler (DTH). If installed, the Telephony Service pushes new transactions to the agent desktop. If the Telephony Service is not installed, the agents select (pull) the transactions from a list of transactions on the Agent Workbook.
- **Symposium Web Center Portal Telephony Client** This component, installed on the Agent PCs, provides an interface between the TAPI Client and the Agent Interface. This component allows Symposium Web Center Portal to push transactions to the agents.

- **Symposium Web Center Portal Web Communication Manager** This optional component allows agents and customers to communicate using Internet text chat, push web pages to each other, and share forms. The Web Communication Manager also permits Click Stream Tracking, which records a list of URLs the customer has visited at the web site (sample pages provided).
- **Symposium Web Center Portal Customer Interface** This optional component is set up on the External Web server. The Customer Interface allows customized web pages to interact with the Symposium Web Center Portal database (sample pages provided).

Network architecture



Technical support

All hardware diagnostics are the responsibility of the hardware vendor. Verify the manufacturer's instructions before you perform any hardware-related procedure.

Before you install Symposium Web Center Portal, you must verify your selected servers. This verification includes making sure the computers conform to the specifications listed in "Planning and engineering" on page 23, and installing the operating system and ensuring it is functional. For more information about configuring the operating system, refer to "Windows NT configuration information" on page 489.

Nortel Networks provides support during the installation and configuration of Symposium Web Center Portal, and for questions about the operating system and pcAnywhere.

Chapter 2

Planning and engineering

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Supported configurations

Introduction

This section provides details for the supported configurations for Symposium Web Center Portal. It also provides the software requirements for each Symposium Web Center Portal component in a one-server and two-server configuration. For more information about the installation sequence, refer to “Installation sequence” on page 70.

ATTENTION You must install a Java Runtime Environment (JRE) on the Agent Interface Server, Agent PCs, and on the optional External Web server. JRE 1.2.2_006 is distributed on the Symposium Web Center Portal CD-ROM. You can download later versions from the Sun web site (<http://java.sun.com/downloads>). JRE is now referred to as Java 2 Standard Edition (J2SE) on the Sun web site. You can use JRE 1.2.2_006, provided on the Nortel Networks Symposium Web Center Portal CD-ROM, except in the following instances:

- If you are using a Pentium IV on the Agent Interface server or on the Agent PCs, you must install JRE (J2SE) version 1.2.2_012 (or later) of the 1.2.2 JRE (J2SE) stream.
- If you plan to install JRun 4.0, you must install the latest version of JRE (J2SE) version 1.3.x (or later) to allow JRun to function properly on the External Web server.

One-server configuration

Symposium Web Center Portal server

- Windows NT 4.0 Server with Service Pack 6a (or later) and NT Option Pack 4.0 (Nortel Networks recommends Post-Windows NT 4.0 Service Pack 6a Security Rollup Package.)
- Microsoft Posting Acceptor (NT Option Pack 4.0 component)
- Sybase Adaptive Server

- Internet Explorer 5.0 (or later)
- Symposium Web Center Portal Database
- JRE (J2SE) 1.2.2_006 (or later of the JRE (J2SE) 1.2.2 stream). If you are installing on a Pentium IV, you must use 1.2.2_012 (or later in the JRE (J2SE) 1.2.2 stream).
- Windows Script
- Microsoft Data Access Components (MDAC)
- Symposium Web Center Portal Agent Interface
- Symposium Web Center Portal Administrator (including e-mail)
- Symposium Web Center Portal Telephony Service

External Web server

This optional server hosts the Customer Interface and the Web Communication Manager components. These components allow your customized web site to interact with the Symposium Web Center Portal database. Sample Customer Interface web pages are provided to illustrate the available features. For more information, refer to Appendix E, “Customizing the Customer Interface.”

- Windows NT 4.0 Server with Service Pack 6a (or later), and NT Option Pack 4.0 (or later). Nortel Networks recommends Post-Windows NT 4.0 Service Pack 6a Security Rollup Package (SRP).
- Internet Explorer 5.0 (or later)
- Sybase Open Client
- JRE (J2SE) 1.3.x. You can download later versions of JRE (J2SE) from the Sun web site.
- Microsoft Data Access Components (MDAC)
- JRun 4.0 Professional
- Symposium Web Center Portal Customer Interface (sample pages are provided)
- Symposium Web Center Portal Web Communication Manager (optional)

Agent PC

- Windows 95, Windows 98, Windows NT 4.0 Workstation, Windows 2000 Professional Client, or Windows XP Professional Client
- Internet Explorer 5.0 (or later)

- Symposium Web Center Portal Telephony Client (optional)
- Microsoft TAPI Client 2.1, if using Windows 95
- Microsoft Data Access Components (MDAC)
- JRE (J2SE) 1.2.2_006 (or later of the JRE [J2SE] 1.2.2 stream). If you are installing on a Pentium IV, you must use 1.2.2_012 (or later of the JRE [J2SE] 1.2.2 stream). JRE (J2SE) 1.2.2_006 is distributed on the Symposium Web Center Portal CD-ROM. You can download later versions from the Sun web site.

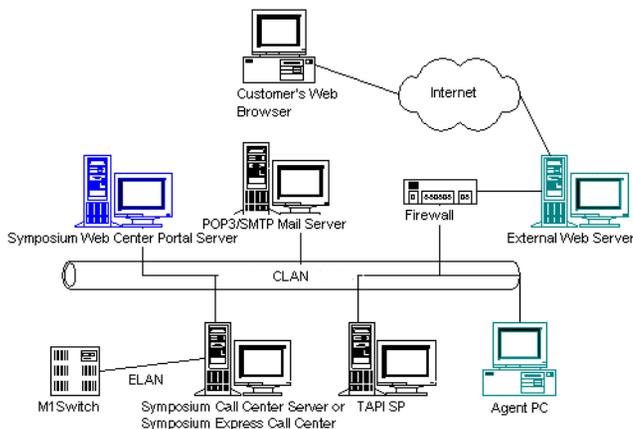
TAPI server

- Windows NT 4.0 Server or Windows 2000 Server
- Nortel TAPI Service Provider 2.3

Mail server

- POP3 mail server (inbound mail)
- SMTP mail server (outbound mail)

One-server configuration



Two-server configuration

Symposium Web Center Portal server

- Windows NT 4.0 Server with Service Pack 6a (or later), and NT Option Pack 4.0 Nortel Networks recommends Post-Windows NT 4.0 Service Pack 6a Security Rollup Package (SRP).
- Sybase Adaptive Server
- Internet Explorer 5.0 (or later)
- Symposium Web Center Portal Database
- Symposium Web Center Portal Administrator (including e-mail)
- Symposium Web Center Portal Telephony Service

External Web server

This optional server hosts the Customer Interface and the Web Communication Manager components. Independent or together, these components allow your customized web site to interact with the Symposium Web Center Portal database. Sample Customer Interface web pages are provided to illustrate the available features. For more information, refer to Appendix E, “Customizing the Customer Interface.”

- Windows NT 4.0 Server with Service Pack 6a (or later), and NT Option Pack 4.0. Nortel Networks recommends Post-Windows NT 4.0 Service Pack 6a Security Rollup Package (SRP).
- Internet Explorer 5.0 (or later)
- Sybase Open Client
- JRE (J2SE) 1.3.x. You can download later versions of JRE (J2SE) from the Sun web site.
- Microsoft Data Access Components (MDAC)
- JRun 4.0 Professional
- Symposium Web Center Portal Customer Interface
- Symposium Web Center Portal Web Communication Manager

Agent Interface server

- Windows NT 4.0 Server with Service Pack 6a (or later), and NT Option Pack 4.0 (or later). Nortel Networks recommends Post-Windows NT 4.0 Service Pack 6a Security Rollup Package (SRP).
- Microsoft Posting Acceptor (Windows NT Option Pack 4 component)
- Sybase Open Client
- Windows Script
- Microsoft Data Access Components (MDAC)
- JRE (J2SE) 1.2.2_006 (or later of the JRE [J2SE] 1.2.2 stream). If you are installing on a Pentium IV, you must use 1.2.2_012 (or later from the JRE [J2SE] 1.2.2 stream). JRE (J2SE) 1.2.2_006 is distributed on the Symposium Web Center Portal CD-ROM. You can download later versions from the Sun web site.
- Symposium Web Center Portal Agent Interface

Agent PC

- Windows 95, Windows 98, Windows NT 4.0 Workstation, Windows 2000 Professional Client, or Windows XP Professional Client
- Internet Explorer 5.0 (or later)
- Symposium Web Center Portal Telephony Client (optional)
- TAPI Client, if using Windows 95
- JRE (J2SE) 1.2.2_006 (or later of the JRE [J2SE] 1.2.2 stream). If you are installing on a Pentium IV, you must use 1.2.2_012 (or later of the JRE [J2SE] 1.2.2 stream). JRE (J2SE) 1.2.2_006 is distributed on the Symposium Web Center Portal CD-ROM. You can download later versions from the Sun web site.

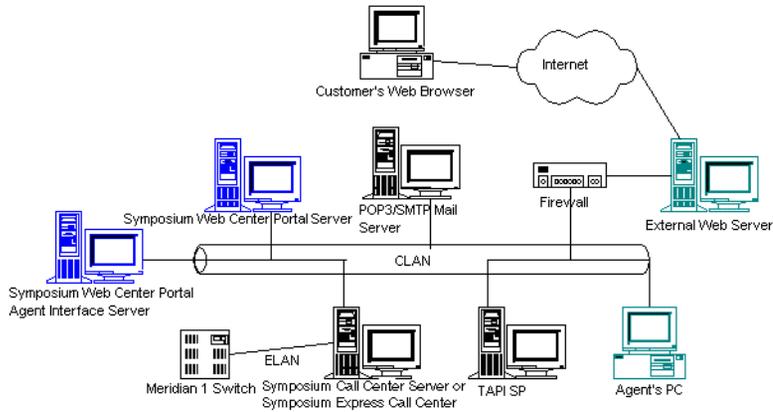
TAPI server

- Windows NT 4.0 Workstation or Windows 2000 Server
- Nortel TAPI Service Provider 2.3

Mail server

- POP3 mail server (inbound mail)
- SMTP mail server (outbound mail)

Two-server configuration



Note: Do not install Symposium Web Center Portal components over a network. If necessary, copy the component installation directory to the local hard drive of the PC, and run the setup from the hard drive.

System requirements

Introduction

The following section lists the minimum system requirements to successfully run Symposium Web Center Portal. For information about TAPI and e-mail systems, refer to the documentation that comes with these applications.

Note: The specifications below are minimum requirements only. Increase processor speed, RAM, and disk space to improve system performance.

Agent capacity for Symposium Web Center Portal

Symposium Web Center Portal supports up to 200 simultaneously active agents and up to 500 configured agents.

The hardware requirements depend on the number of simultaneously active agents and on the level of traffic expected in the call center. When you are planning your Symposium Web Center Portal system, keep in mind the following minimum system requirements:

One-server configuration

A single-server configuration can handle up to 600 transactions per hour. The following system requirements apply:

- minimum Single CPU PIII 933 MHz for < 25 simultaneously active agents
- minimum Dual CPU PIII 933 MHz or Single CPU PIV 2 GHz for < 100 simultaneously active agents
- minimum 512 Mbytes of memory on the server

Two-server configuration

A two-server configuration can handle up to 1200 transactions per hour. The following system requirements apply:

- minimum Dual CPU PIII 933 MHz (both servers) or Single CPU PIV 2GHz (both servers) for < 200 simultaneously active agents
- minimum 512 Mbytes of memory provisioned on each server

Software on the Symposium Web Center Portal CD-ROM

The following software is available on the Nortel Networks Symposium Web Center Portal CD-ROM:

- Sybase Adaptive Server Enterprise
- Adobe Acrobat
- pcAnywhere
- Nortel Security (FlexLM License Manager)
- Windows Scripting Library (in the utility software directory)
- MDAC (in the utility software directory)
- Java Runtime Environment (JRE) 1.2.2_006

ATTENTION Nortel Networks Symposium Web Center Portal CD-ROM contains JRE 1.2.2_006. This version of JRE is made obsolete by the following requirements:

- JRE (J2SE) version 1.2.2_012 or later of the 1.2.2 JRE stream is required for Pentium IV compatibility on the Agent Interface Server and on Agent PCs. These components are not compatible with versions of JRE later than the 1.2.2 stream.
 - JRE (J2SE) version 1.3.x (or later) is required for Jrun 4.0 to function properly on the External Web Server.
 - Nortel Networks recommends that you download JRE 1.2.2_012 (or later) and JRE 1.3.x from the Java web site (<http://java.sun.com>). JRE 1.2.2_012 (or later) is installed on the Agent Interface Server and on Agent PCs. JRE 1.3.x is installed on the External Web server.
- Symposium Web Center Portal Database
 - Symposium Web Center Portal Agent Interface
 - Symposium Web Center Portal Administrator
 - Symposium Web Center Portal Customer Interface (sample pages)
 - Symposium Web Center Portal Web Communication Manager
 - Symposium Web Center Portal Telephony Service

- Symposium Web Center Portal Telephony Client

Required third-party products

To enable Web Communication Manager, Symposium Web Center Portal uses Java Servlet technology on the Web server. You must install JRun Server 4.0 Professional from Macromedia Corporation, which is used as the servlet engine on the Web server. You can order JRun from the Macromedia Corporation web site at <http://www.macromedia.com>. For more information, refer to “Installing JRun” on page 149.

Software you provide

You must provide the following software:

- Windows NT Server 4.0 with Option Pack 4.0 and NT Service Pack 6a. (You must install Service Pack 6a before you install Option Pack 4.0. To maintain the current service release, you must reinstall Service Pack 6a after installing Option Pack 4.0.)

Note: If the message Setup detected that Windows NT 4.0 SP4 or greater is installed on your machine. We haven't tested this product on SP4. Do you wish to proceed? appears, click Yes to continue.

ATTENTION

Symposium Web Center Portal only supports the U.S. English Windows NT Server 4.0.

- Internet Explorer 5.0 or later (You must ensure that Active Desktop is not selected when you install Internet Explorer 5.0.)
- Nortel TAPI Service Provider 2.3
- TAPI Client 2.1 for Windows 95
- POP3 compatible e-mail server
- Windows 95, Windows 98, Windows NT Workstation 4.0, Windows 2000 Professional Client, or Windows XP Professional Client (for client PCs)

Requirements for the Symposium Web Center Portal server

The Symposium Web Center Portal server requires a minimum of two physical hard drives—the applications drive and the database drive.

Applications drive

The applications drive requires 8 Gbytes of disk space. Nortel Networks recommends that you create two 4 Gbyte partitions on the applications drive:

- drive C, on which you install the Operating System, Sybase software, and Symposium Web Center Portal components (4 Gbytes)
- drive D, on which you store e-mail attachments (4 Gbytes). If you expect a large ratio of e-mails with attachments or if you expect to receive many large e-mail attachments, then you must have another hard drive to meet the e-mail storage requirements.

Database drive

The database drive requires a minimum of 20 Gbytes of disk space to allow you to create a 12 Gbyte database.

You can use any drive letter for the database drive; however, the drive letter must match the drive letter for the Sybase data directory (specified during the Sybase software installation). The database drive stores the Symposium Web Center Portal database.

Before you install the Symposium Web Center Portal components, you must first install the following:

- Windows NT Server 4.0 with Service Pack 6a (or later) and Option Pack 4.0. The estimated disk space required is 141 Mbytes. For more information, refer to the Windows NT Server documentation.
- Sybase Adaptive Server Database System 11.5. (The estimated disk space required is 400 Mbytes. This estimation includes a Master Device Size of 150 Mbytes and a System size of 60 Mbytes. For more information, refer to the Sybase 11.5 documentation.) Symposium Web Center Portal uses a Sybase database to store customer data, agent information, and call statistics.

Hardware requirements

The hardware must meet the minimum requirements listed below, as well as the other guidelines mentioned in this guide. The hardware should also appear in Microsoft's Compatibility List for Windows NT Server 4.0 (www.microsoft.com/hcl/default.asp):

- Single Pentium III 933 MHz processor or Dual Pentium III 933 MHz processor. For more information, refer to "System requirements" on page 30.
- two separate physical disks required by the Symposium Web Center Portal server. For more information, refer to "Requirements for the Symposium Web Center Portal server" on page 33.
- 512 Mbytes of RAM
- LAN connection
- CD-ROM drive
- 56 Kbps modem (for support if you are using pcAnywhere)
- tape drive (for database backups. You can also perform backups to network locations.)
- LPT or parallel port (for the license manager dongle)

Software requirements

- Windows NT 4.0 Server with Option Pack 4 and Service Pack 6a (or later). Do not install Option Pack 4.0 if you are using a two-server configuration.
- Sybase Adaptive Server Enterprise (Sybase version 11.5, supplied on CD-ROM)
- pcAnywhere32 if your organization has purchased Nortel Networks external support services
- Nortel Networks TAPI Service Provider version 2.3 for Meridian environments
- MDAC (supplied on CD-ROM)
- Windows Script (supplied on CD-ROM)
- JRE (supplied on CD-ROM) to run Java applications and applets on Windows (JRE 1.2.2_006 is supplied on CD-ROM. A later version of JRE [J2SE] of the 1.2.2 stream is available from the Sun web site.)

Requirements for Symposium Web Center Portal Administrator client

You can install the Administrator component on the Windows Symposium Web Center Portal server or on both the Symposium Web Center Portal server and a separate PC (for remote access). The administrator's PC must have Sybase Open Client and Microsoft ODBC Manager installed before you begin installation. The following requirements must be met if you are installing the Administrator on a separate PC.

Hardware requirements

- Pentium 266 MHz processor (or later)
- 128 Mbytes of RAM
- 1 Gbyte of free disk space
- LAN connection
- CD-ROM drive
- 56 Kbps modem (for support using pcAnywhere)

Software requirements

- Windows 95, Windows 98, Windows NT 4.0 Workstation with Service Pack 5 (or later), Windows 2000 Professional Client, or Windows XP Professional Client
- Microsoft Internet Explorer 5.0 (or later)
- Sybase Open Client System 11.5 (supplied on CD-ROM)

Requirements for Symposium Web Center Portal External Web server

Install the Symposium Web Center Portal Customer Interface and Web Communication Manager components on the External Web server. This server captures customers' web transactions and submits them to Symposium Web Center Portal. The External Web server must be accessible from the Internet if customers are outside the internal intranet.

Note: The Customer Interface must be installed on a computer that is separate from both the database and Agent Interface.

Hardware requirements

- Pentium II 400 MHz processor
- 256 Mbytes of RAM
- 3 Gbytes of free disk space
- CD-ROM drive
- LAN connection

Software requirements

- Windows NT 4.0 Server, Option Pack 4, and Service Pack 6a (or later)
- Sybase Open Client System 11.5 (supplied on CD-ROM)
- JRE (J2SE) 1.3.x (download from <http://java.sun.com>)
- JRun 4.0 Professional (supplied by the Macromedia Corporation) (only required if you are using the Web Communication Manager)
- Microsoft Data Access Components (supplied on CD-ROM)
- Internet Explorer (5.0 or later)

Before you install the Customer Interface and Web Communication Manager components, you must install

- Windows NT Server 4.0 with Option Pack 4 and Service Pack 6a (or later). The estimated disk space required is 141 Mbytes. For more information, refer to the Windows NT Server documentation.

The Symposium Web Center Portal External Web server includes the following components:

- Customer Interface
- Web Communication Manager

The total disk space required for the Symposium Web Center Portal External Web server is 146 Mbytes.

Note: Ensure that you have a copy of JRun Professional 4.0 from the Macromedia Corporation. You must install JRun on the External Web server before you install the Web Communication Manager.

Requirements for the Agent Interface server

You can install the Agent Interface component on the Symposium Web Center Portal server or on a separate Agent Interface server. It does not have to be on the Internet, but it must be available on the internal intranet to allow agents to connect to this server using their web browser. Agents must be on the same domain as the TAPI server or where a trust relationship exists.

Note: The Agent Interface cannot be installed on the same server as the Customer Interface.

Hardware requirements

- Pentium III 933 MHz processor
- 256 Mbytes of RAM
- 4 Gbytes of free disk space
- CD-ROM drive
- LAN connection
- 56 Kbps modem

Software requirements

- Windows NT 4.0 Server, Option Pack 4.0, and Service Pack 6a (or later)
- Microsoft Internet Explorer 5.0 (or greater)
- Microsoft Internet Information Server 4.0 (installed with Option Pack 4)
- Sybase Open Client System 11.5 (supplied on CD-ROM)
- Sybase ODBC driver 3.5 (supplied on CD-ROM)
- Windows Script (supplied on CD-ROM)
- Microsoft Data Access Components (MDAC) (supplied on CD-ROM)

Requirements for the agents' PCs

The Telephony Client component is the interface between the TAPI client and the Agent Interface. You must install the Telephony Client if you plan to operate using push mode.

Before you install the Telephony Client on the agents' PCs, you must install

- Internet Explorer (5.0 or later if the agent will be using the Web Communication Manager). The estimated disk space required is 43 Mbytes.
- Microsoft TAPI 2.1 (if Symposium Web Center Portal Telephony is used). The estimated disk space required is 2 Mbytes.

You must install the Telephony Client on each of the agents' PCs who will be assigned to skillsets in push mode.

The estimated disk space required is 10 Mbytes. The total disk space required for each agent's PC is 55 Mbytes.

Agent PCs must meet the following requirements:

Hardware requirements

- Pentium II 266 MHz
- 128 Mbytes of RAM
- 1 Gbyte of free disk space
- LAN connection
- 14-inch SVGA monitor with at least 640 x 480 resolution and 256 colors. Nortel Networks recommends you use a 19-inch monitor.
- for push mode, a Symposium - or TAPI - supported telset or softphone

Note: A 266 MHz CPU is required for the agent PC; however, Nortel Networks recommends a Pentium II 350 MHz processor for maximum efficiency.

Software requirements

- Windows 95, Windows 98, Windows 2000 Professional, Windows NT 4.0 Workstation with Service Pack 5.0 (or later), or Windows XP Professional
- Microsoft Internet Explorer 5.0 (or later)
- TAPI Desktop Monitor or other softphone application, if required for your call center
- Microsoft TAPI Client 2.1 for Windows 95 only, if using a softphone application. Microsoft TAPI Client 2.1 is installed by default with Windows NT 4.0, Service Pack 5.0 (or later).
- JRE (J2SE) 1.2.2_006 (or later in the JRE [J2SE] of the 1.2.2 stream. JRE [J2SE] 1.2.2_12 [or later] is required on Pentium IVs.)

Requirements for the mail server

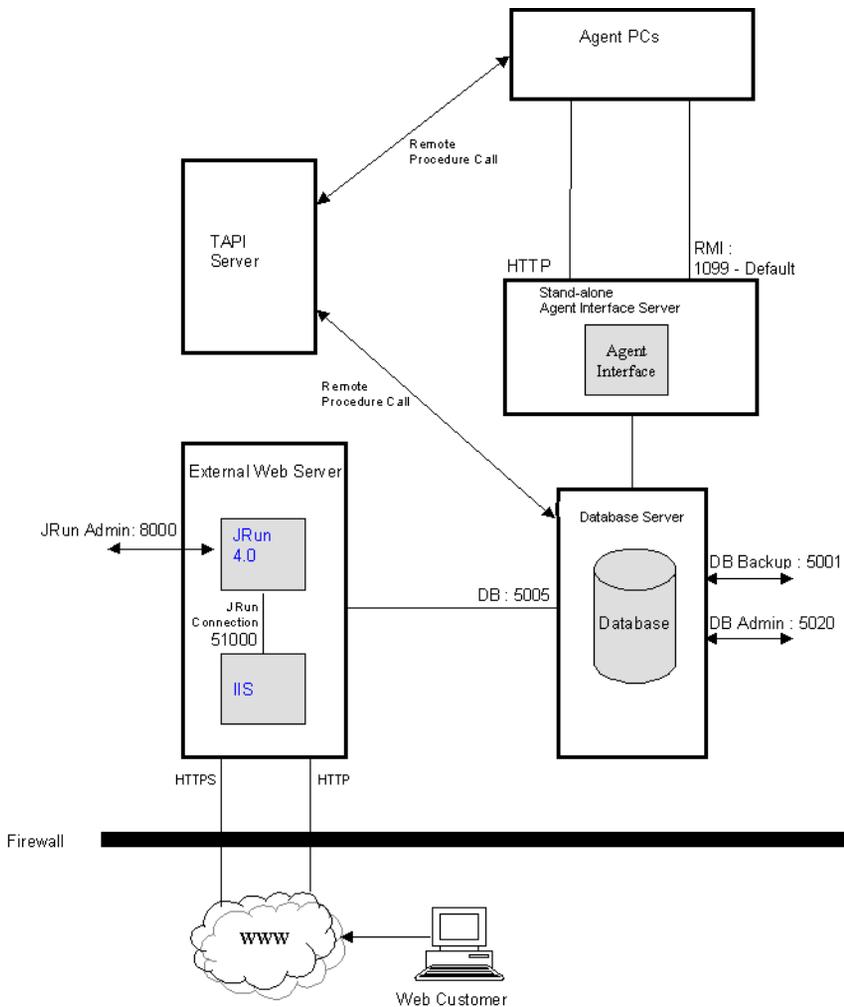
- POP3-compliant mail server
- SMTP-compliant mail server

For your mail server hardware requirements, refer to the supplier documentation.

TCP Ports for firewall configuration

The diagram on page 40 illustrates the port numbers used by the various components of Symposium Web Center Portal. If you are using firewalls, depending on its location on the network, the network administrator may make use of these TCP ports used by Symposium Web Center Portal to configure your firewall. The administrator must ensure that the e-mail server can send and receive external e-mail.

Firewall configuration



Database server ports

5001: Used during a database backup

5005: Used for normal database access

5020: Used to administer the database

Agent Interface ports

HTTP port: Used for normal http protocol access

1099: RMI – Default

Customer Interface and Web Communication Manager ports

HTTP port: Used for normal http protocol access

HTTPS port: Used for secure http protocol access

5005: Used for normal database access

8000: Used to access Admin pages on JRun server

Uninterruptible power supply

Benefits

Nortel Networks recommends the use of an Uninterruptible Power Supply (UPS) with the Symposium Web Center Portal servers. You should also use UPS for both the TAPI server and the server in your Symposium Call Center Server or Symposium Express Call Center. UPS provides the following benefits:

- Continued service in the event of a brief power loss. The UPS maintains power to the server for several minutes, thereby preventing the server from restarting if the power is lost for a short time.
- Reduction in data loss. A UPS shuts down the server gracefully if an interruption in AC power occurs. A graceful shutdown prevents data corruption and reduces the risk of data loss.
- Reduction in power dips and spikes. The UPS regulates AC power supplied to the server.

Notes:

- The Symposium Web Center Portal data backups that are running at the time of shutdown are unusable.
- An unplanned restarting of either Symposium Web Center Portal or the TAPI server requires some manual intervention to fully recover DTH

functionality. For more information about restoring the TAPI server after an unplanned restart of the TAPI server, refer to the *TAPI Network Manager's Guide*. For more information about recovering the DTH, refer to “Dynamic Transaction Handler troubleshooting” on page 391.

Requirements

A UPS used with the Symposium Web Center Portal server must meet the following requirements:

- provides at least 10 minutes of power to stop all services and shut down the server
- physically fits within the workplace
- has minimal environmental impact
- applies power to the server when line voltage reaches a stable state. If the server has been down for a long time, the UPS recharges before powering up the server.
- If you install Smart UPS software on the server, it must conform to the guidelines listed in this guide for third-party utilities. For more information, refer to “Installation sequence” on page 70. Nortel Networks only supports the manual shutdown and startup of the server. The documentation, testing, and support of Symposium Web Center Portal server shutdown and startup with UPS software must be carried out by the provider of the UPS solution.
- meets all local regulatory requirements

Note: For the European market, the UPS must generate a pure sine wave AC waveform.

- has hot-swappable batteries

Note: Replacement or capacity upgrades of the batteries must not interrupt service.

- connects to the server through a serial port (not COM1 or COM2) on the server platform or through a network card, depending on the implementation
- does not affect the Symposium Web Center Portal server software. UPS software must not replace software or drivers installed on the server with different versions.

- Install only the basic software functions necessary for UPS operation. Do not install advanced features, as they can impact the Symposium Web Center Portal server software.

Optimizing Symposium Web Center Portal performance parameters

Introduction

This section provides information about setting up the system parameters for customer-specific traffic profiles and requirements. You can set the performance parameters to suit your call center.

Symposium Web Center Portal supported limits

Symposium Web Center Portal supports 200 agents with up to 1200 transactions per hour. This is the rate at which Symposium Web Center Portal can process transactions. It is based on the recommended configuration with the minimum hardware specifications.

Note: The e-mail server may receive e-mails at a much higher rate without impact on the Symposium Web Center Portal server.

Average Agent Service Time

Average Agent Service Time is the average time it takes an agent to process a transaction to completion. The Average Agent Service Time takes into account the agent/client Post Processing Time (the time an agent remains unavailable to answer a new call after a previous call is completed), as well as the time taken to carry out administrative tasks to complete the transaction.

Example

If a call center has 25 agents dedicated solely to handling e-mail transactions, the agents can handle a minimum of 300 (25×12) transactions per hour.

Optimizing the performance in a call center

Introduction

This section describes how to configure Symposium Web Center Portal to optimize the transaction throughput to suit each call center's unique workflow. The transaction throughput relies on three main components within Symposium Web Center Portal:

- The Inbound Mail Service (IMS) downloads e-mails from the e-mail server to the Symposium Web Center Portal database. For more information, refer to “Optimizing the Inbound Mail Service” on page 258.
- The Outbound Mail Service (OMS) sends responses from the database to the e-mail server and back to customers. For more information, refer to “Optimizing the Outbound Mail Service” on page 260.
- The Dynamic Transaction Handler (DTH) presents transactions from the database to the agent. The DTH presents the transaction as a call to Symposium Call Center Server or Symposium Express Call Center, which routes the transactions to the appropriate available agents. For more information, refer to “Optimizing the DTH” on page 46.

The Transaction Monitor maintains the status of the transaction in the database. It may affect the number of transactions available for the DTH to process. For more information about the Transaction Monitor, refer to “Configuring the Transaction Monitor” on page 178.

Optimizing the DTH

Introduction

This section provides information about the parameters used to control the efficiency of the DTH.

DTH parameters

The DTH retrieves “new” (new and new reply) transactions from the database and interacts with Symposium Call Center Server or Symposium Express Call Center to present transactions to the appropriate available agent. When you install the DTH, the parameters that control the DTH are set to the recommended default values; however, you can configure these parameters. For more information, refer to “DTH throughput examples” on page 49. The following parameters control the operation of the DTH:

- **Transaction Polling Interval** — Determines how often the DTH polls the database for new transactions.
By default, the DTH executes every 5 seconds. This is the minimum configurable time. Since the number of transactions that the DTH handles per cycle is fixed at 20, increasing the polling interval decreases the potential throughput capacity. The maximum configurable time is 60 seconds.
- **Agent Configuration** — You can configure the DTH TAPI lines to use one of the following modes of operation:
 - **Drop Call** — The DTH TAPI call is dropped once the agent is presented with the transaction, leaving the line available for the DTH to place more calls. In this mode, Symposium Web Center Portal can operate efficiently without a DTH TAPI line for every agent.
 - **Keep Call** — The DTH TAPI call is active while the agent is working on the transaction. Symposium Web Center Portal is most efficient in this mode if the number of DTH TAPI lines is at least equal to the number of active agents.

Two other fixed parameters that control the performance of the DTH are

- **Ring Timeout (20 minutes)** — The amount of time DTH waits for an agent to accept a call. If the transaction is not accepted by this time, the call is dropped and the transaction returns to the database.
- **Percent Per Skillset (50%)** — The percentage of the available TAPI lines per skillset. If the DTH places more calls than the allowable percentage of calls for a single skillset, it searches the queue for acquired transactions for a different skillset and places calls for them on the remaining TAPI lines before completing the calls for the first skillset.

Note: You cannot dedicate lines to particular skillsets.

Agent configuration

Drop Mode

In Drop Mode, an idle DTH TAPI line is selected and a call is made to Symposium Call Center Server or Symposium Express Call Center. The server in Symposium Call Center Server or Symposium Express Call Center places the call to an available agent. A dialog box appears on the agent's screen, allowing him or her to accept or decline the offered call. If the agent declines the call, it is returned to the Symposium Call Center Server or Symposium Express Call Center queue, and the DTH does not release the line. If the agent accepts the call, the DTH TAPI line is released, and the line is made available for the next call. The length of time that an agent works on a transaction or the number of available agents does not prevent the DTH from presenting calls to Symposium Call Center Server or Symposium Express Call Center. When the call is dropped, Symposium Call Center Server or Symposium Express Call Center Real Time Displays (RTD) do not give a visual indication of the agent's current activity, and it is not reflected in the reports.

To maximize the performance of Symposium Web Center Portal in Drop Mode, refer to "Other parameters" on page 57 to determine a sufficient number of TAPI lines for your available agents. This minimizes the amount of time a new transaction coming in to the call center waits before it is presented to Symposium Call Center Server or Symposium Express Call Center for routing to an available agent.

Keep Mode

In Keep Mode, once the agent accepts the transaction, the DTH TAPI call remains in a connected state until the agent completes the transaction. While the call is connected, the DTH TAPI line is busy, and it is unavailable to the DTH to present new transactions. In Keep Mode, the DTH places a new call for the next transaction when an agent completes a transaction and releases the DTH TAPI line that he or she was using.

In Keep Mode, the number of DTH TAPI lines should be at least equal to the number of agents, since a DTH TAPI line is kept occupied for the duration of an agent's talk time or transaction service time. This minimizes the amount of time before a new transaction coming in to the call center is presented to Symposium Call Center Server or Symposium Express Call Center for routing to an agent. If you have fewer DTH TAPI lines than available agents, you may encounter a call flow bottleneck resulting in calls not being presented to agents who are idle at that time.

Reporting

The mode you choose affects the reporting of Symposium Web Center Portal.

In Keep Mode, when an agent accepts the transaction, the agent appears as Active in the Real-Time display and reports. The line appears busy, preventing the agent from receiving any further calls (PSTN or Symposium Web Center Portal transactions) while he or she is working on the transaction.

In Drop Mode, the phone is placed into the Not-Ready state until the agent completes the transaction and presses Ready on the desktop or the phoneset. The Not-Ready state prevents the agent from receiving other calls.

For more information, refer to “Symposium Web Center Portal telephony components” on page 459.

DTH throughput examples

Introduction

This section provides examples of how the DTH operates in Keep Mode and Drop Mode.

Example 1

Number of DTH TAPI lines:10

Number of active agents: 9

The agents are configured in Keep Mode. When the DTH first runs, it retrieves 20 transactions and places 10 calls to Symposium Call Center Server. Symposium Call Center Server routes nine of the transactions to the appropriate agents and queues the tenth call until an agent becomes available. If Symposium Web Center Portal is running in Keep Mode, the DTH waits until one of the agents completes a transaction and a line becomes idle.

If the idle agent is assigned to the skillset for which the transaction is currently queued in Symposium Call Center Server, the transaction is routed to the agent. If not, that transaction remains in the queue.

The DTH places a call to Symposium Call Center Server for the next transaction. If the next transaction is not for a skillset assigned to the idle agent, the call is queued in Symposium Call Center Server and waits for an appropriate agent to become free. All ten lines are now busy, and the DTH places a call for the next transaction when another agent finishes processing his or her transaction.

Note: It is important in this scenario that the number of agents to skillsets is balanced.

Example 2

Number of DTH TAPI lines:10

Number of active agents: 20

The agents are configured in Drop Mode. When the DTH first runs, it acquires 20 transactions and places 10 calls to Symposium Call Center Server. The server in Symposium Call Center Server routes the calls to the ten available agents. Each of the TAPI lines is released when the call is accepted by an agent. The DTH places 10 more calls, repeating the process until all 20 transactions are routed to the agents.

The DTH runs again after 5 seconds and retrieves 20 more transactions. The DTH places ten more calls to Symposium Call Center Server. At this point, all the agents are busy, so Symposium Call Center Server adds the calls to its queue. A TAPI line is released when an agent accepts a call. The DTH then places a call on this line for the next transaction in the queue. It repeats this process until all of the acquired transactions are queued by Symposium Call Center Server. If there are more new transactions in the database, the DTH continues to retrieve them.

In this case, Symposium Call Center Server handles most of the queuing of calls to the agents. The treatment that Symposium Web Center Portal calls receive compared to standard call center voice calls determines how quickly transactions get routed to available agents. A smaller number of TAPI lines service a larger number of agents because the call is dropped. The Real Time Displays and reporting records do not reflect the agents' activities as accurately in Drop Mode as in Keep Mode.

DTH traffic model

Introduction

This section provides information about the DTH traffic model and traffic parameters.

The following assumptions are used to develop the traffic model:

- Traffic calculation models are for existing voice call centers and new multi-media contact centers.
- The Customer Web server is Microsoft IIS.
- The Dynamic Transaction Handler (DTH) polls the database every 5 seconds.
- The IMM polls the e-mail server every minute.
- The real-time displays are not used.
- Release 3.0 DTH can support a high number of outbound lines (limited by DTH traffic capacity).
- LAN bandwidth is 10 Mbps.

Traffic parameters

A customer can interact in a variety of ways with the Symposium Web Center Portal-enabled call center. These include PSTN/voice, web-forms, and e-mail. M1/ACD, Symposium Call Center Server, Symposium Express Call Center, and Nortel Networks IVR are capable of handling the PSTN/voice traffic.

Symposium Web Center Portal traffic is divided into real-time and non-real-time components. For example, the Web forms that require immediate response are real-time in nature, whereas e-mails are non-real-time. Traffic characteristics affect the traffic model and dictate the resource requirements, such as human agents, DTH outbound lines, and so on.

The DTH prioritizes transactions based on skillsets and response type (immediate callback, scheduled callback, and so on).

Steady Transaction Arrival

Steady Transaction Arrival is the average rate of form or e-mail arrivals to the Symposium Web Center Portal system. The transaction arrival rate is measured in Transactions Per Hour and is based on the average arrival traffic. Transaction rate refers to steady-state rates and not to burst traffic.

Agent Service Time

Agent Service Time is the average time it takes an agent to process a transaction. This includes the agent/client Post Processing Time, which is the time an agent remains unavailable to answer a call after a call is completed. It is usually the time taken to carry out administrative tasks relating to a call.

DTH transaction traffic

The Symposium Web Center Portal server is capable of handling a steady-state inbound traffic rate of 1200 transactions per hour for a Pentium III 933 MHz.

Note: Outbound lines can be physical phone lines connected to a Meridian 1 line card, or phantom TNs associated with a network loop that do not have a physical presence in the system. The alternative to using phantom TNs is not available with Option 11 because the network architecture is different from that of larger Meridian 1 systems.

Outbound line traffic calculation

In this model, there are agents in an existing call center handling incoming calls. The outbound calls initiated by DTH are incremental traffic added to the agent load. The scheduled outbound calls can be any time during the day, as requested by customers. For engineering purposes, a call center administrator must estimate the number of transactions (e-mail, chat, and outbound voice calls) that are added to the traffic load of agents during busy hours.

Keep Mode traffic

In Keep Mode, the number of outbound lines is equal to the number of agents, since an outbound line is kept occupied for the duration of an agent's talk time.

Traffic calculation is as follows:

Outbound traffic in CCS = # of DTH pushed transactions in busy hour * agent service time/100

Centi-Call-Second (CCS) is a resource (circuit/line/agent) being occupied for 100 seconds. It is normally used to designate the utilization of a resource.

Note: 36 CCSs on a single resource represents 100 percent occupancy.

The calculated outbound CCS is added to the inbound agent traffic to calculate the overall agent-staffing requirement. In practical applications, the agent requirement is based on agent utilization or a Grade of Service (GOS) specified by the customer.

The additional agents required to handle the incremental Symposium Web Center Portal traffic is the difference in agents required between two scenarios: one is based on the total contact center traffic, and the other is based on voice traffic only.

Drop Mode traffic

In Drop Mode, an outbound line is dropped once an agent has accepted the new transaction pushed from the DTH. This operation takes approximately 2 seconds.

If you use the maximum number of transactions that are handled by the DTH (measured on a Pentium II 400 MHz) at 1200 per hour, traffic becomes

Drop Mode traffic = $1200 * 2 / 100 = 24$ CCS

At P.001 or better, this amount of traffic requires 5 outbound lines. Non-blocking outbound lines require 11 outbound lines.

Since the DTH drops the outbound line once the transaction is established, it is independent of the agent service time. As long as DTH-pushed transactions stay within the DTH limits, the number of outbound lines required will not go beyond 8 (or 16) in Drop Mode, regardless of the average Agent Service Time and the number of agents.

Agent requirement calculation

The agent requirement calculation is independent of the DTH operation mode. The number of agents required depends on the of number of transactions, the agent service time, and the Grade of Service or the agent utilization.

The traffic calculation equation is as follows:

Agent traffic in CCS = # DTH pushed transactions in busy hour * agent service time/100

Example

1200 busy-hour transactions at a 180-second agent service time will offer 2160 CCS (=1200*180/100) to the contact center. This Symposium Web Center Portal traffic should be added to the incoming voice traffic to agents to calculate the overall contact center staffing requirement.

To estimate the number of agents required without knowing the base agent traffic, use the Agent Utilization rule, which is typically 90 percent (or between 30 CCS and 33 CCS) in busy hour, or 32.4 CCS per agent. In the previous example, to handle 2160 CCS incrementally, Symposium Web Center Portal traffic requires an additional 68 agents (=Ceiling [2160/32.4]).

Note: Use a customer's number for utilization level if it is available.

This number of agents (68) is equal to the number of outbound lines required if Symposium Web Center Portal is set to use Keep Mode. It is the maximum number of outbound lines ever needed for Symposium Web Center Portal Release 3.0, assuming a 180-second agent service time (the number is higher for a service time greater than 180 seconds).

Summary of outbound line and agent engineering

The rules covered in the above sections are summarized here for easy application.

Agents for DTH-pushed transactions

The number of agents required to handle Symposium Web Center Portal traffic is independent of the mode (Keep or Drop) used by DTH.

Use the following formula to calculate agent traffic:

Agent traffic in CCS = # DTH pushed transactions in busy hour * agent service time (in seconds)/100

Add the above agent CCS to the other traffic (incoming voice traffic) handled by call center agents, and then use the prevailing model (Erlang Delay Model or Agent Utilization Rule) to calculate the agents required. For more information about Erlang B, see “Using Erlang B” on page 678.

When there is no information on base agent traffic (incoming voice traffic), use the following formula to calculate the agent requirement:

of incremental Symposium Web Center Portal agents required = Ceiling (agent traffic in CCS/32.4) where Ceiling (x) is the least integer greater than or equal to x

Outbound line engineering

Drop Mode

With a fully loaded DTH, 5 outbound lines are needed for a P.001 GOS; 11 lines would provide non-blocking for outbound line access.

Keep Mode

- If you know the Base-Incoming-Voice traffic, the number of outbound lines is equal to the difference of required agents to handle total traffic (Voice +Symposium Web Center Portal) versus Voice Traffic only.
- If you do not have information about voice traffic or you are performing a new installation, the number of outbound lines is equal to the number of incremental agents calculated from the last section.

TAPI server capacity

The TAPI server generates calls to the agent skillsets. You must configure each Symposium Web Center Portal phoneset and DTH line in the TAPI database. Symposium Web Center Portal supports 50 agents. TSP for Meridian 1 supports 1200 simultaneous open lines. The call capacity of the Meridian 1 TAPI server is 16 000 calls per hour. The peak calling rate for Symposium Web Center Portal (measured on a Pentium II 400 MHz processor) using DTH is 1200 transactions per hour.

DTH considerations

To manage the workload of the Symposium Web Center Portal agents, you must consider the following:

1. Assign the appropriate priority to every skillset base. The transactions with the highest priority are presented to the agents first.
2. Make sure the DTH has enough TAPI lines to make calls. TAPI lines are used by the DTH to send transactions to the agents. If Drop Call is set, the line is freed as soon as the agent accepts the transaction. If Keep Call is set, the line remains in use while the agent is processing the transaction, and you will require more TAPI lines.

If you have skillsets for which agents are not receiving transactions because the lines are busy with calls for skillsets with higher priorities, you can balance the workload by adding more TAPI lines to the DTH or changing the priority of the skillsets.

Other parameters

Introduction

This section provides information about the system parameters for Symposium Web Center Portal, other than those for the DTH and eMail Manager.

The number of transactions downloaded to the Agent Interface

Symposium Web Center Portal downloads transactions from the Symposium Web Center Portal server to the agent's PC. The speed of the transaction downloading is related to the processor speed and the memory size of the Symposium Web Center Portal server, and the bandwidth of the network.

Nortel Networks recommends a default value for general use. The default number of transactions displayed when the agent first logs on is 50.

Automatic Refresh

The proper Automatic Refresh interval improves the agent's efficiency. The default refresh interval is every 15 minutes. The general rule to set the automatic refresh rate is as follows:

```
Auto Refresh time in minutes = # of refreshed transactions  
* Average agent service time (in minutes)/# of agents with  
the same skillset
```

Web Communication Manager timers

You can use the Web Communication Manager timers to increase the efficiency of the call center. For more information, refer to "Changing the Web Communication Manager timers" on page 294.

The lifespan timers of call data on the TAPI server

Symposium Web Center Portal can attach data to a call and then send it to the agent desktop. The amount of time that this data is stored in the TAPI server depends on the LifeSpan parameter defined in the mlinksp.ini file located in the Windows NT subdirectory.

Symposium Web Center Portal database requirements

Introduction

The Administrator must choose the location of the Symposium Web Center Portal database-specific files. For more information, refer to “System requirements” on page 30.

Symposium Web Center Portal database operation

When you install the Symposium Web Center Portal database component, you install the files required to operate the database. These files include

- the SWRSv2_datadev.dat file, which stores the Symposium Web Center Portal data record
- the SWRSv2_logdev.dat file, which stores the Symposium Web Center Portal transaction log
- the datasave.dat file, which is the backup file

The destination of these files is established when you install the database component. Use the default location with the other Sybase-relevant files. A good location for the datasave.dat file is on a remote disk to secure the backup of this file.

Symposium Web Center Portal database and disk capacity

Introduction

This section provides database capacity calculations. Each calculation takes into account the amount of time before you purge the database. Remember that when you purge the database, you permanently remove the information from the database.

Keep in mind that when you install Symposium Web Center Portal, the space allocated to the database is 10 Gbytes.

All of the stored records mentioned in the following pages are stored in the 10 Gbyte SWRSV2_logdev.dat database file.

Transaction records

Every 400 transactions require 1 Mbyte of storage space. This required disk space is calculated as

$$\text{Database disk space in MB} = (\# \text{ of transactions per day} / 400) * \text{days in storage before purging}$$

Text Chat records

At the end of a text-chat session, the Text Chat log is saved in the database. The disk storage required is calculated as

$$\text{Database disk space in KB} = 6 \text{ KB} * \# \text{ of Text Chat sessions per day} * \# \text{ of days before purging}$$

E-mail storage

The size of an e-mail can vary. You can substitute the default assumptions in the following equation with data from the call center.

Assumptions

The e-mail storage equation assumes the following:

- 80 characters per line
- 2 bytes per character
- 30 lines of text per e-mail
- 40 bytes of database overhead per line
- 20 e-mail sessions per agent per hour

The disk storage required is calculated as

Database disk space in KB = $(80*2+40)*30*(\# \text{ of e-mails/day})*\# \text{ of days before archiving} = 6 \text{ KB}*(\# \text{ of e-mails/day})*\# \text{ of days before purging}$

If the known parameters are the number of sessions per agent and the number of agents, then you can use the following calculation:

Database disk space in KB = $6 \text{ KB}*(\# \text{ of sessions/agent/hour})*(\# \text{ of agents})*(\# \text{ of hours/day})*\# \text{ of days before purging}$. If there is no set information available, a day is assumed to be equivalent to 6 busy hours.

E-mail attachment storage

The database stores the e-mail attachments. The disk space required to store attachments is calculated as

Database disk space for e-mail attachment in MB = $\# \text{ of e-mails per day}*(\% \text{ with attachment})* (\text{attachment size in MB})* (\# \text{ of days before purging})$

Example

The following is a numerical example of the database capacity using the values listed in the table below:

Input	Value
Transactions per day	30 000
Days transaction records stored	10

Input	Value
Proportion of text chat sessions	25%
Days text chat records stored	10
E-mail transactions	30%
Proportion of e-mails with Attachments	2%
Average size of attachment (Mbytes)	0.5 Mbytes
Days e-mails stored	10

Note: The calculations below used Mbytes instead of kbytes.

Transaction records storage

$$\text{Transaction Records Storage (MB)} = (\text{TxRate_TxPD} / 400) * \text{DaysStored_TR} = (30,000 / 400) * 10 = 750 \text{ MB}$$

Text Chat records storage

$$\begin{aligned} \text{Text Chat Records Storage (MB)} &= \\ 0.006 * (\text{TxRate_TxPD}) * \text{TextChat_Perc} * \text{DaysStored_CR} &= 0.006 * \\ 30,000 * .25 * 10 &= 450 \text{ MB} \end{aligned}$$

E-mail storage

$$\text{E-mail Storage (MB)} = 0.006 * (\text{TxRate_TxPD}) * \text{E-mail_Perc} * \text{DaysStored_E} = 0.006 * 30,000 * 0.3 * 10 = 540 \text{ MB}$$

E-mail attachments storage

$$\begin{aligned} \text{E-mail Attachments Storage (MB)} &= \text{TxRate_TxPD} * \text{E-mail_Perc} \\ &* \text{AttachPercent} * \text{AttachSize} * \text{DaysStored_E} \\ &= 30,000 * 0.3 * 0.02 * 0.5 * 10 = 900 \text{ MB} \end{aligned}$$

Total requirements

The total space requirement is the sum of the Transaction, Text Chat, and E-mail requirements given above. The e-mail attachments are not part of the database.

Total Requirement = (750 + 450 + 540 + 900) MB = 2.64 Gbytes

Maximum number of days before purging

The maximum number of days before you must purge the database can be determined given the total amount of disk space in Gbytes available (TGA):

$$ndp_{Max} = \left\lceil \frac{2,000,000 * TGA}{5 * ntx + 12 * nts + 12 * nemd} \right\rceil$$

where

- ndp_{Max} is the maximum number of days before you must purge the database
- ntx is the number of transaction records per day
- nts is the number of text chat sessions per day
- $nemd$ is the number of e-mail sessions per day, which is calculated as (# of e-mails/agent/day)*(# of agents)
- $\lceil \quad \rceil$ is the ceiling function (least integer greater than or equal to the expression)

Example

If, on an average daily basis, there are 20 000 Transaction records, 4000 text chat sessions, and 5000 e-mail sessions with no attachments, then the maximum number of days that can be tolerated before purging for a 10 Gbyte (10.24) disk space availability is given as

$$ndp_{Max} = \left\lceil \frac{2,000,000 * 10.24}{5 * 20,000 + 12 * 4,000 + 12 * 5,000} \right\rceil = \lceil 98.5 \rceil = 99$$

LAN requirements

Introduction

This section provides information about Symposium Web Center Portal LAN requirements. LAN loading is a function of the number of applications involved in a call center.

Note: You must account for all the different types of transactions handled by the agents. The total number of transactions per call center should be equal to the sum of all the transactions processed by all the agents.

Transaction record display traffic

The majority of LAN traffic from the agent screen transaction display is due to Auto Refresh. The average number of lines of display is 25. The default download size is 50 lines.

Assumptions

The LAN traffic calculations assume the following:

- 120 characters/line
- 2 bytes/character
- 80 bytes IP (TCP) and Ethernet overhead
- 20 transactions per agent per hour
- 6 refreshes per hour
- average of 25 transaction records per refresh (due to Unicode, one character is equal to 2 bytes)

$$\text{Bps} = (120 \times 2 + 80) \times 8 \times (\# \text{ of displayed transactions} / \text{refresh}) \times (\# \text{ of auto-refresh} / \text{agent} / \text{hour}) \times (\# \text{ of agents}) / 3600 = 107 \text{ bps} \times \# \text{ of agents}$$

Note: Six refreshes per hour were based on the Auto Refresh with a 10-minute interval. Adjust the number of refreshes according to the known data for a specific site.

Chapter 3

Installing the Symposium Web Center Portal software

In this chapter

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Overview

Introduction

This chapter provides instructions on how to install and configure Symposium Web Center Portal. Before you install Symposium Web Center Portal, you must ensure that you meet all the system requirements for each component. For more information, refer to Chapter 2, “Planning and engineering.”

ATTENTION

Do not install Symposium Web Center Portal components over a network. If necessary, copy the component installation directory to the local hard drive of the PC, and run the setup from the hard drive. Install the Symposium Web Center Portal components in order as they appear in the guide.

Installation data requirements

Introduction

Before you install the Symposium Web Center Portal components, you must know the information detailed in the table below.

ATTENTION You must install a Java Runtime Environment (JRE) on the Agent Interface Server, Agent PCs, and on the optional External Web server. JRE 1.2.2_6 is distributed on the Symposium Web Center Portal CD-ROM. You can download later versions from the Sun web site (<http://java.sun.com/downloads>). JRE is now referred to as Java 2 Standard Edition (J2SE) on the Sun web site. You can use JRE 1.2.2_006 provided on the Nortel Networks Symposium Web Center Portal CD-ROM, except in the following instances:

- If you are using a Pentium IV on the Agent Interface server or on the Agent PCs, you must install JRE (J2SE) version 1.2.2_012 or later of the 1.2.2 JRE (J2SE) stream.
- If you plan install JRun 4.0, you must install JRE (J2SE) version 1.3.x (or later) to allow JRun to function properly on the External Web server.

Requirements

Component	Required information
Database	<ul style="list-style-type: none">■ the drive on which you plan to install the database. It must be at least 20 Gbytes.■ the host name of the server on which you plan to install the database

Component	Required information
Administrator	<ul style="list-style-type: none">■ the host name of the Symposium Web Center Portal server■ the host name of the Agent Interface server■ the host name of the External Web server■ the host name of the FLEXIm License Manager server■ the host name of the Inbound e-mail server■ the host name of the Outbound e-mail server■ the domain name that is appended to the end of the e-mail addresses where the Symposium Web Center Portal responses originate. For example, if the e-mail is info@letronix.com you require letronix.com.
Agent Interface	<ul style="list-style-type: none">■ the host name of the server on which you installed the FLEXIm License Manager■ the host name of the Symposium Web Center Portal server■ the host name of the External Web server
Customer interface	<ul style="list-style-type: none">■ the External Web server root directory■ the External Web server scripts directory path
Web Communication Manager	<ul style="list-style-type: none">■ the JRE/bin directory path■ a user name and password of your choice for JRun■ the host name of the Symposium Web Center Portal server

Installation sequence

Introduction

The following checklist provides the recommended installation sequence for Symposium Web Center Portal.

Installation sequence for a one-server configuration

Component	External Web server	Symposium Web Center Portal Server	Step	✓
License Manager		x	Install the FLEXIm license manager.	
Sybase ASE		x	Install Sybase Adaptive Server.	
Database		x	Install the database.	
Agent Interface		x	Install Windows Script.	
		x	Install Microsoft Data Access Components.	
		x	Install JRE (J2SE)1.2.2_006 (or later in the 1.2.2 stream). Pentium IV computers require J2SE 1.2.2_012 (or later of the J2SE 1.2.2 stream).	

Component	External Web server	Symposium Web Center Portal Server	Step	✓
		x	Install Microsoft Posting Acceptor.	
		x	Install the Agent Interface.	
		x	Configure IIS for the Agent, Admin, and Uploads virtual directories.	
Administrator		x	Install the Administrator.	
Telephony Service		x	Install the Telephony Service.	
Customer Interface	x		Install Sybase Open Client.	
	x		Install Microsoft Data Access Components (MDAC).	
	x		Install the Customer Interface.	
	x		Configure IIS for the swcp-ci virtual directory.	
Web Communication Manager	x		Install JRE (J2SE) 1.3.x (or later).	
	x		Install JRun 4.0.	

Component	External Web server	Symposium Web Center Portal Server	Step	✓
	x		Install the Web Communication Manager.	
	x		Configure JRun 4.0.	
	x		Configure IIS for the swcp-wcm virtual directory and Clickstream tracking.	

Installation sequence for a two-server configuration

Component	External Web server	Agent Interface server	Symposium Web Center Portal Server	Step	✓
License Manager			x	Install the FLEXlm license manager.	
Sybase ASE			x	Install Sybase Adaptive Server.	
Database			x	Install the database.	
Agent Interface		x		Install Sybase Open Client.	
		x		Install Windows Script.	

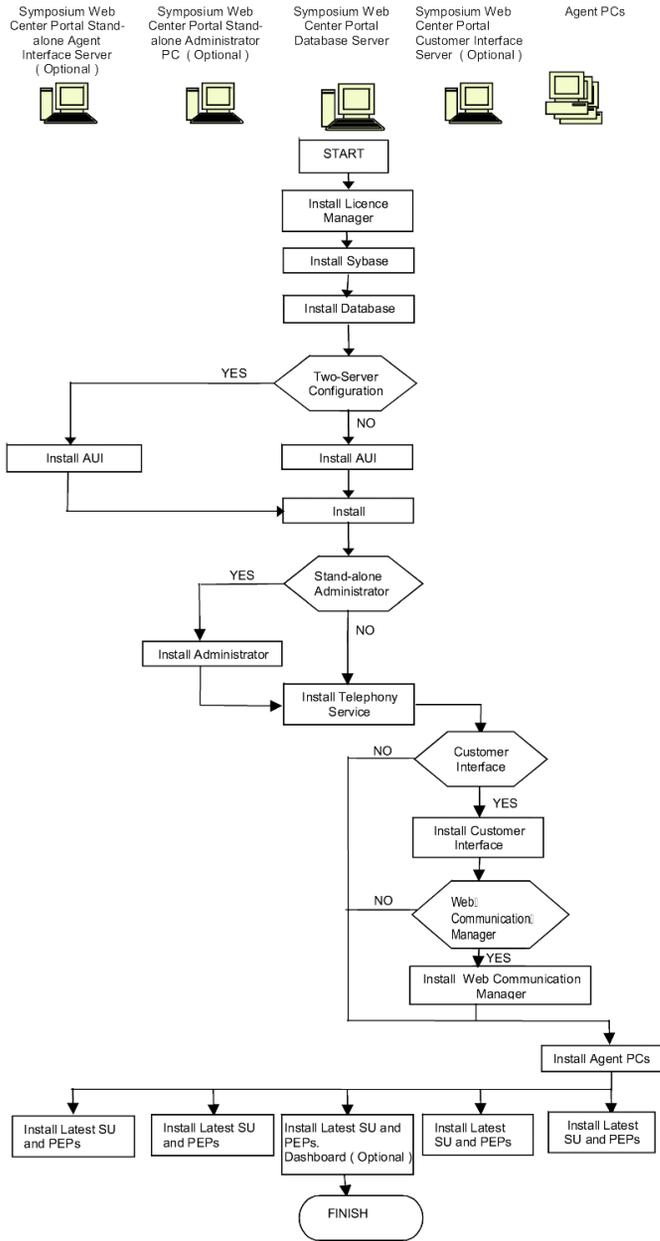
Component	External Web server	Agent Interface server	Symposium Web Center Portal Server	Step	✓
		x		Install Microsoft Data Access Components.	
		x		Install JRE (J2SE)1.2.2_006 (or later in the 1.2.2 stream). Pentium IV computers require J2SE 1.2.2_012 (or later of the J2SE 1.2.2 stream).	
			x	Install Microsoft Posting Acceptor.	
		x		Install the Agent Interface.	
		x		Configure IIS for the Agent, Admin, and Uploads virtual directories.	
Administrator			x	Install the Administrator.	
Telephony Service			x	Install MDAC.	
			x	Install the Telephony service.	

Component	External Web server	Agent Interface server	Symposium Web Center Portal Server	Step	✓
Customer Interface	x			Install Sybase Open Client.	
	x			Install MDAC.	
	x			Install the Customer Interface.	
	x			Configure IIS for the swcp-ci virtual directory.	
Web Communication Manager	x			Install JRE (J2SE) 1.3.x (or later).	
	x			Install JRun 4.0.	
	x			Install the Web Communication Manager.	
	x			Configure JRun 4.0.	
	x			Configure IIS for the swcp-wcm virtual directory and Clickstream tracking.	

Note: After you install the Symposium Web Center Portal components on each computer, you must ensure you install all of the required SUs and PEPs. For more information, refer to “Installing software PEPs and service updates” on page 187.

Installation flow chart

An overview of the recommended installation sequence is provided in the flowchart on page 76. For more information about the Symposium Web Center Portal components, refer to Chapter 1, “Getting started.”



Third-party software on the server

Introduction

You must not install any other application class software on the server. You may install certain utility class software on the server, providing it conforms to the guidelines listed below:

- Application class software requires a certain amount of system resources and, therefore, you must not install it on any server running Symposium Web Center Portal. If you install an application class third-party application, it may cause Symposium Web Center Portal to operate outside of the known engineering limits (for example, CPU contentions, increased network traffic loading, disk access degradations, and so on).
- Certain third-party utility class software applications, such as hardware diagnostics or backup tools, require less system resources during the normal operation of Symposium Web Center Portal and are, therefore, permitted. Exceptions include utilities such as screen savers, which may cause system problems and degrade performance. Antivirus software is classified as a utility and is subject to the generic guidelines listed below, as well as a specific series of recommendations detailed in this section. For more information, refer to “Antivirus software on Symposium Web Center Portal servers” on page 491.

Note: Third-party backup software is only used for full backups. You must use the utility included with Symposium Web Center Portal to perform all other database backups due to proprietary functions called upon during the backup routine. For more information, see Chapter 9, “Backup and restore.”

Guidelines for utility-class software applications

- During run-time, the utility must not degrade the Symposium Web Center Portal system beyond an average 30 percent CPU utilization. Furthermore, the utility must not lower the minimum amount of free hard disk space required by Symposium Web Center Portal and the Windows operating system.
- The utility must not cause any improper software shutdowns, or out-of-sequence shutdowns.

- The utility must not administer the Symposium Web Center Portal software.
- If the utility has its own database, it must not impact the Symposium Web Center Portal database.
- You must not use disk compression utilities.
- You must not use memory tweaking utilities (for example, WinRAM Turbo, Memory Zipper, and so on) to reclaim memory that is unused by Microsoft.
- The installation or removal of the third-party software should not impact or conflict with the Symposium Web Center Portal software (for example, it must not cause .DLL conflicts). If such conflicts are discovered, you may need to rebuild the server.

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

Pre-installation checklist for Symposium Web Center Portal

Steps	✓
Review Chapter 2, “Planning and engineering,” and ensure that your system meets all the hardware and software requirements.	
<p>Ensure you install Windows NT 4.0 Server Service Pack 6a (or higher).</p> <p>Note: If you are going to use TAPI, you must configure Windows NT as a domain. If you are not going to use TAPI, you can configure Windows NT as a workgroup. For more information about Windows NT configuration for Symposium Web Center Portal, refer to “Windows NT configuration information” on page 489.</p>	

Steps	✓
Ensure that the Microsoft Internet Information Server 4.0 (Windows NT Option Pack 4) is installed on both the Symposium Web Center Portal server and the External Web server.	
To maintain the current service release, after you uninstall Windows NT Option Pack 4, install Windows NT 4.0 Server Service Pack 6a (or higher) again.	
Nortel Networks recommends that you install the Windows NT 4.0 Service Pack 6a Security Rollup Package (SRP). For more information, refer to your Microsoft documentation.	
Ensure that Internet Explorer 5.0 (or higher) is installed on both the Symposium Web Center Portal server and the External Web server.	
If you are using the Customer Interface component (optional) on the External Web server, ensure that you can connect to the External Web server from the Symposium Web Center Portal server and the Agent Interface server using the host name of the External Web server. If you cannot connect to the External Web server, contact the network administrator.	
If you plan to use the DTH, ensure that the switch is programmed for use with the phoneset using Symposium Web Center Portal. Refer to your switch documentation. Ensure that the TAPI Service Provider is installed and configured for use with Symposium Web Center Portal. Refer to “Configuring the TAPI server” on page 481, and to your TAPI documentation.	
If you are integrating Symposium Web Center Portal with Symposium Call Center Server or Symposium Express Call Center, then you must ensure that the switch has been configured properly. For more information, refer to the switch documentation.	
For agent PCs with Windows 95, ensure that TAPI and the softphone application, if required, are installed and operational.	

Steps	✓
Ensure that you have installed and configured the License Manager (if required). Refer to “Installing and configuring the License Manager” on page 81.	
Ensure that you have a copy of JRun Professional 4.0 from the Macromedia Corporation. You must install JRun on the External Web Server before you install the Web Communication Manager.	
<p>Ensure that you know the names of the skillsets you plan to use, the priority of these skillsets, and the e-mail accounts to which you want to map some of these skillsets. You can add and delete skillsets as needed. Refer to “Managing skillsets” on page 210, and “Mapping e-mail accounts to skillsets” on page 234.</p> <p>Note: You cannot use the Euro Symbol in a skillset name or a customer name.</p>	
Install pcAnywhere for support. Refer to “Installing pcAnywhere” on page 443.	

Check for any Installation Addenda

Before performing an installation, upgrade, or conversion, check for any Installation Addenda on your regional Symposium Web Center Portal technical web site (<http://www.nortelnetworks.com>).

Installing and configuring the License Manager

Introduction

Symposium Web Center Portal is shipped with its own dongle and licence file. The Licence Manager is installed on the Symposium Web Center Portal server.

ATTENTION

Before you install the License Manager, ensure you attach the dongle to the parallel (printer) port of the Symposium Web Center Portal server.

To install the License Manager

- 1 Insert the Nortel Networks Symposium Web Center Portal CD-ROM into the CD drive.
- 2 On the Windows Start menu, click Run.
- 3 Click Browse.
- 4 Go to the Nortel Security folder on the Symposium Web Center Portal CD-ROM, and then double-click Setup.

- 5 Click OK.

Result: The Choose Destination Location dialog box appears.



- 6 To change the destination folder, click Browse, and then select the desired folder.

- 7 Click Next.

Result: The Start Copying Files dialog box appears.



- 8 Click Next.

Result: The program installs the License Manager and closes.

- 9 Continue with the following procedure to install the license file.

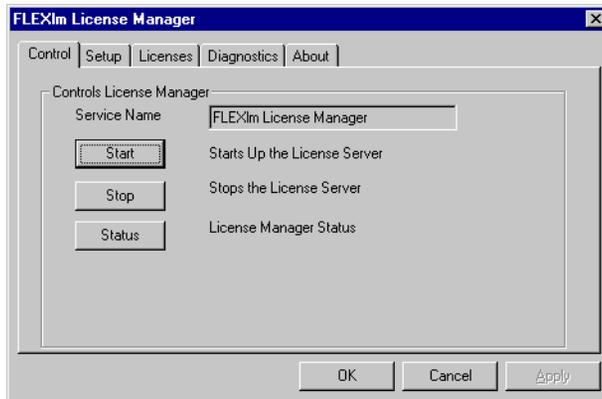
To install the license file

- 1 Make a backup copy of the License.dat file supplied by your distributor, and store it in a safe place.
- 2 Copy the License.dat file to the c:\Winnt\System32 folder.

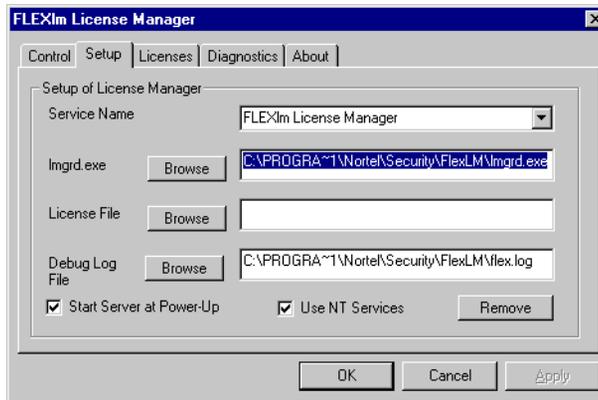
To configure the License Manager

- 1 From the Windows Start menu, choose Programs → Nortel → Security → FLEXIm Control Panel.

Result: The FLEXIm License Manager property sheet opens.



- 2 Click the Setup tab to display the Setup boxes.



- 3 Confirm the location of Imgrd.exe.

ATTENTION

Do not click Remove. This button removes the License Manager from the NT Services. If the License Manager is removed, then Symposium Web Center Portal cannot operate.

Note: The default is the directory in which you installed the FLEXlm License Manager software (for example, C:\Program Files\Nortel Security\FLEXlm\).

- 4 Click Browse to locate the License.dat file. This file is in the directory to which you copied it in the previous procedure.

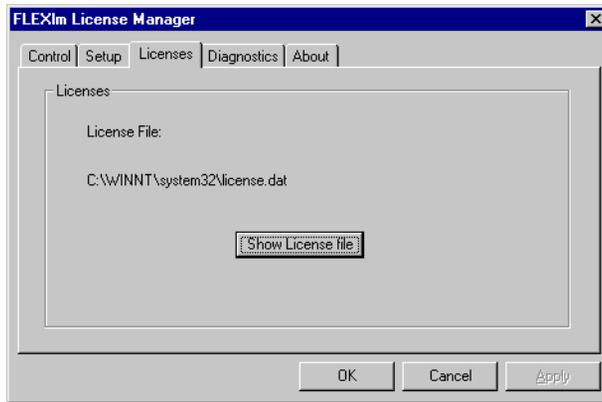
Note: The recommended location is the c:\Winnt\System32 directory.

- 5 Select Use NT Services and Start Server at Power-Up. The License Manager service must be started before the TAPI server can communicate with Symposium Web Center Portal.

Note: You can also start the License Manager manually by clicking Start on the Control property page.

- 6 Click Apply.
- 7 When prompted, click Yes to save your changes.

8 Click the Licenses tab.



9 Click Show License file.

Result: The license.dat file opens.

Note: The following text shows a sample license file. Your license file may look different, depending on the options that you purchased.

```

license file - Notepad
File Edit Search Help
SERVER this_host NORTEL=81C5971700000086
DAEMON nortelvd NO_DAEMON_PATH
INCREMENT SWCP nortelvd 3.0 1-jan-0000 50 EC14C041E250E4F9D2A4 ck=18
INCREMENT SWCP_SEMM nortelvd 3.0 1-jan-0000 1 5C84F0C1B98A3BBB1A83 \
ck=61
INCREMENT SWCP_SWCM nortelvd 3.0 1-jan-0000 1 4CA45021C7782B331A83 \
ck=213

```

10 For Symposium Web Center Portal Release 3.0 support, verify that the text on the first line of the file is in your license file.

The following table explains the meaning of the text that appears in the third line of the license file:

SWCP	The Symposium Web Center Portal feature.
3.0	The product version number. This value must be 3.0.
50	The number of users (agents, supervisors, and administrators) that can be logged on at one time.

- 11 On the SERVER line, replace this_host with the host name of your computer. The alphabetic characters in this name must be uppercase and exactly the same as the name of your computer.

ATTENTION _____
Edit only this_host. If you edit other fields, you will corrupt the license.dat file and prevent the License Manager from running.

- 12 Choose File → Exit, and then click Yes to save your changes.

- 13 Return to the Control tab, and then click Start.

Result: The License FLEXIm Manager Starts.

- 14 Click Status.

Result: The status of the FLEXIm License Manager appears. This can take several minutes.

Note: You may need to click Status twice before the correct FLEXIm License Manager status appears.

Installing Sybase Adaptive Server Enterprise

Introduction

To install Symposium Web Center Portal, you must first install and configure the Sybase Adaptive Server Enterprise (Sybase 11.5) on the Symposium Web Center Portal server.

Install Sybase Adaptive Server Enterprise (Sybase SQL Server database) using the Sybase installation program included on the Symposium Web Center Portal CD-ROM. This installation process supports only a fresh installation of Sybase Adaptive Server Enterprise with Symposium Web Center Portal as the only database.

You can only install Sybase 11.5 SQL Server database on one computer. For more information about Sybase 11.5, refer to the Sybase documentation.

Notes:

- If you install Sybase Adaptive Server or Sybase Open Client, you must also install Sybase Emergency Bug Fixes (EBFs). For more information, refer to “To apply the Sybase EBF” on page 90.
- When you configure the database, the Symposium Web Center Portal setup procedure uses the **sa** account with no password. Do not change or remove the **sa** account.

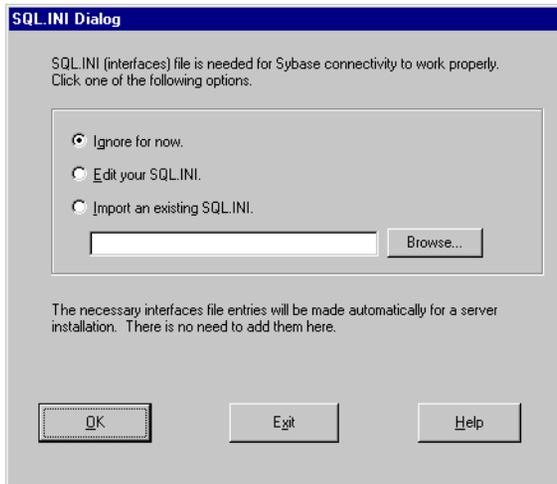
To install Sybase Adaptive Server Enterprise

- 1 Log on to Windows NT 4.0 using the Administrator user ID.
- 2 Insert the Nortel Networks Symposium Web Center Portal CD-ROM into the CD drive.
- 3 On the Windows Start menu, click Run, and then browse to the Sybase11_5 folder on the CD-ROM drive.
- 4 Click the Sybase11_5 folder.
- 5 Double-click setup.exe.

- 6 Click OK.
Result: The Welcome window appears.
- 7 Click Next.
Result: The Select Installation Type window appears.
- 8 Ensure License Products is selected, and then click Next.
Result: The Select Sybase Installation Directory window appears.
- 9 Ensure the Sybase Installation Directory box contains C:\Sybase, and then click Next.
Result: The Select Program Folder window appears.
- 10 Accept the default program folder to install Sybase, and then click Next.
Result: The Product Selection window appears.
- 11 Ensure you select
 - Adaptive Server Enterprise
 - Sybase Central ASE Plug-in
 - SQL Advantage
 - Open Client
 - ODBC driver
- 12 Click Next.
Result: The Installation Summary window appears.

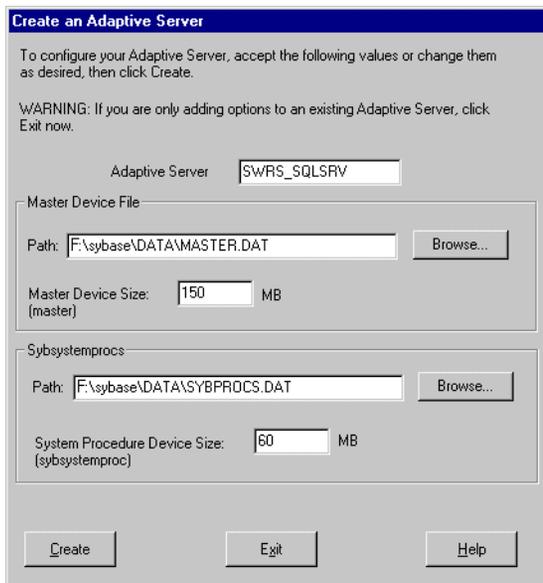
- 13 Click Install to confirm the installation.

Result: The files copy over, and then the SQL.INI Dialog window appears.



- 14 Select Ignore for now, and then click OK.

Result: The Create an Adaptive Server window appears.



- 15 In the Adaptive Server box, type **SWRS_SQLSRV**.

ATTENTION

Symposium Web Center Portal works only when the Adaptive Server is named SWRS_SQLSRV. Do not use the default name. If you do use it, Symposium Web Center Portal will *not* work.

- 16 Ensure the path for the Master Device File points to the Symposium Web Center Portal dedicated database drive.

Note: The Symposium Web Center Portal database drive should not be the same as the drive on which you installed the Sybase software.

- 17 In the Master Device Size box, type **150** Mbytes.
- 18 Ensure the path for Sybssystemprocs points to the Symposium Web Center Portal database drive.
- 19 In the System Procedure Device Size box, type **60** Mbytes.

ATTENTION

Make note of the paths you used to create the Adaptive Server. You will need this information when you install the Symposium Web Center Portal database component.

- 20 Click Create.

Result: The Status window appears and the copying of files begins. On a low-end server, copying can take up to 15 minutes.

- 21 When the Installation Complete dialog box appears, select **Ignore for now**, and then click Finish.

To apply the Sybase EBF

- 1 Log on to Windows NT using the Administrator user ID.
- 2 Insert the Symposium Web Center Portal CD into the CD-ROM drive.
- 3 Open the Sybase 11_5 folder on the Symposium Web Center Portal CD-ROM.
- 4 Double-click the Ebf folder.

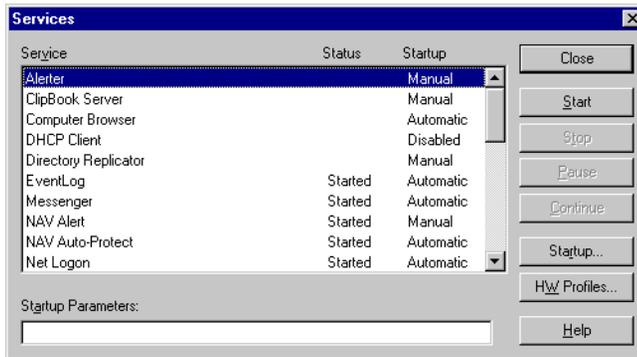
- 5 Double-click the batch file Run_SYBEBF.bat.

Result: A DOS window appears. When the DOS window disappears, continue with the next procedure.

- 6 Restart the computer.

To set the services to start automatically

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



- 2 Select Sybase SQLServer_SWRS_SQLSRV, and then click Startup.
- 3 Select Automatic, and then click OK.
- 4 Select Sybase BCKServer_SWRS_SQLSRV_BS, and then click Startup.
- 5 Select Automatic, and then click OK.
- 6 Click Close.
- 7 Restart the server.

Installing the Database component

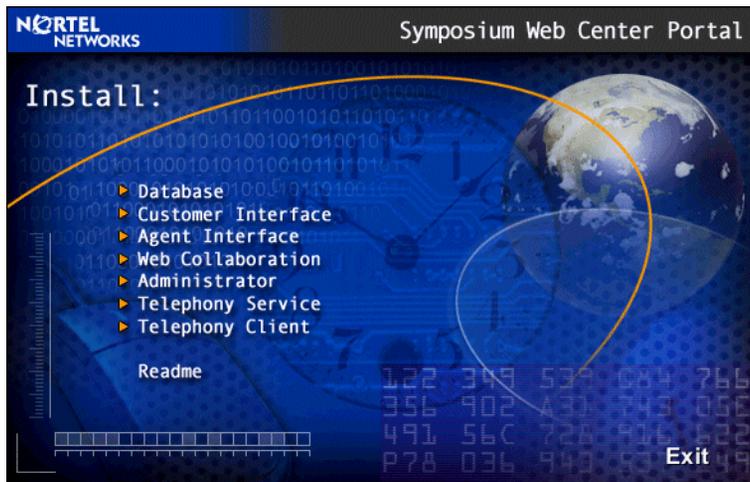
Introduction

This section describes how to install the Symposium Web Center Portal Database component. Install the Database component on the Symposium Web Center Portal server.

To install the database

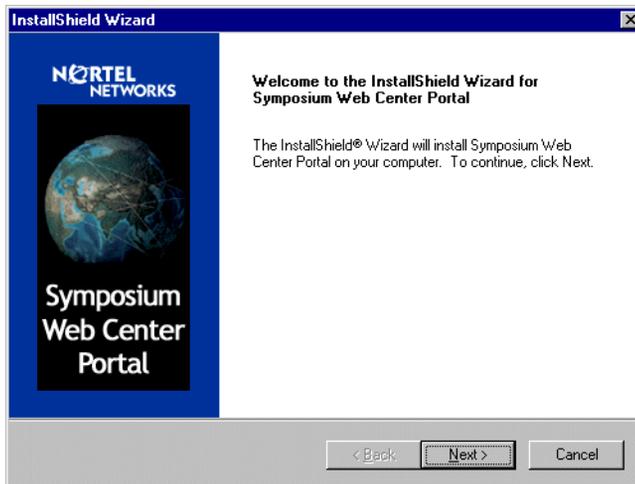
- 1 Log on to Windows NT 4.0 using the Administrator user ID.
- 2 Insert the Nortel Networks Symposium Web Center Portal CD-ROM into the CD drive. If the installation program does not start automatically, run Setup.exe from the CD.

Result: The Symposium Web Center Portal Install window appears.

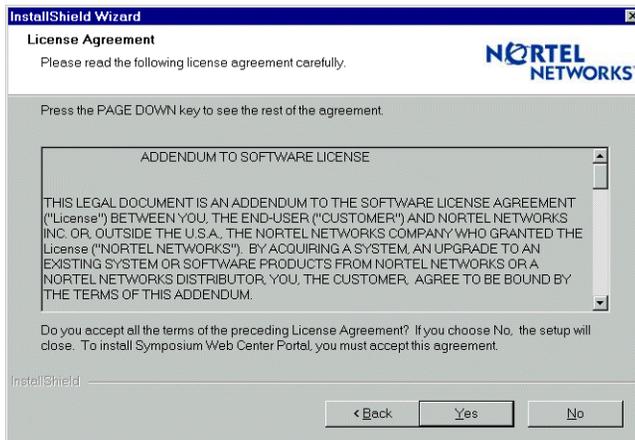


3 Click Database.

Result: The InstallShield Wizard Welcome window appears.

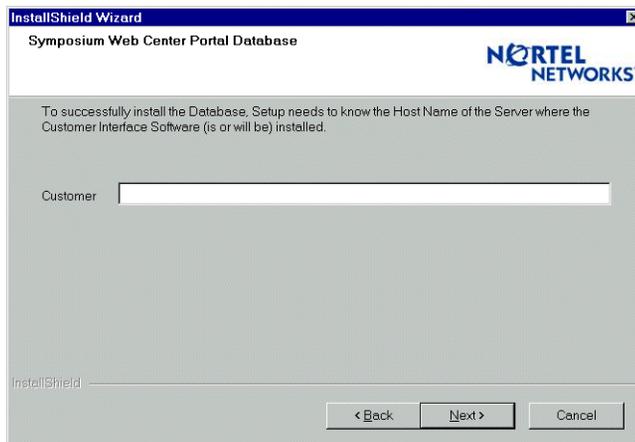
**4** Click Next.

Result: The License Agreement window appears.



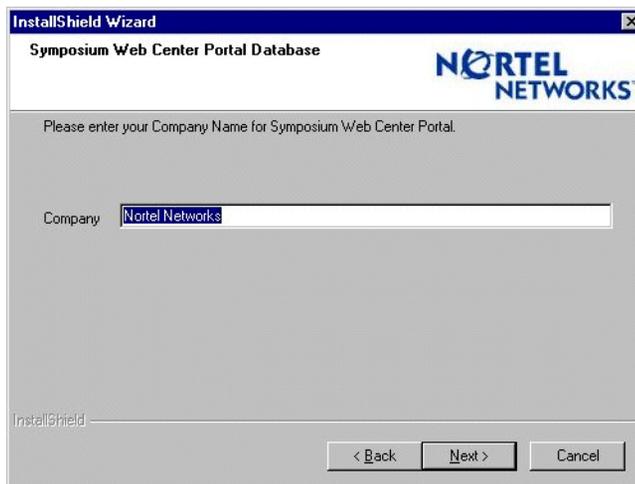
- 5 Click Yes to accept the license agreement.

Result: The customer host name window appears.



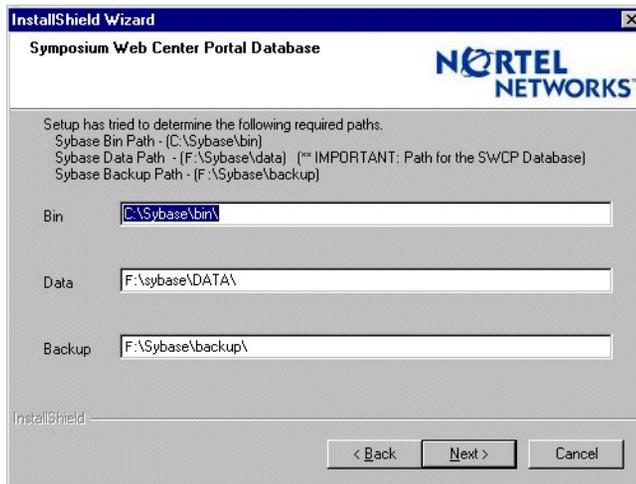
- 6 Enter the host name of the server where the Customer Interface will be installed, and then click Next.

Result: The Symposium Web Center Portal Database company name window appears.



- 7 Type the name of the company, and then click Next.

Result: The Symposium Web Center Portal Database path confirmation window appears.



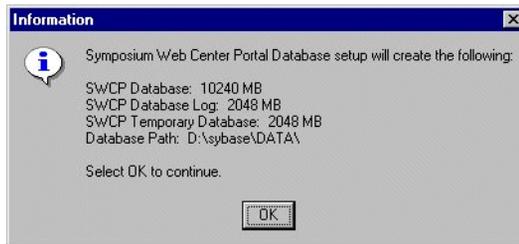
- 8 In the Bin box, type **C:\Sybase\bin**, where C: is the drive on which you installed Sybase Adaptive Server.
- 9 In the Data box, type **F:\sybase\DATA**, where F: is the drive on which you will install the database.
- 10 In the Backup box, type **F:\Sybase\backup**, where F: is the drive on which you will install the database.

Note: Remember that the drive on which you install the database is a dedicated drive (with at least 20 Gbytes for the database).

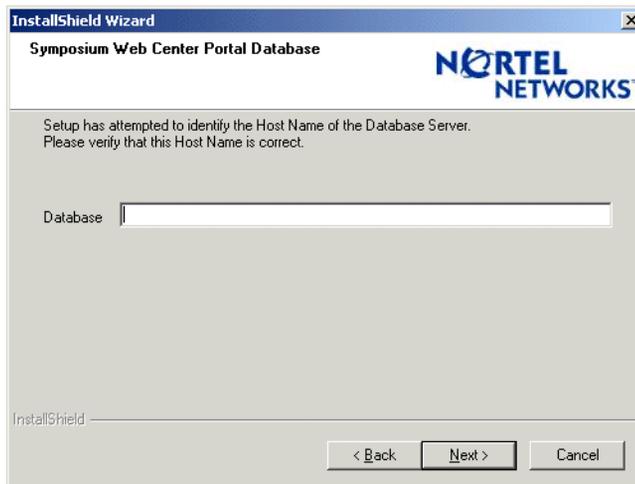
11 Click Next.

Note: If you are prompted to create the Backup path, click Yes to create the path.

Result: The Information window appears.

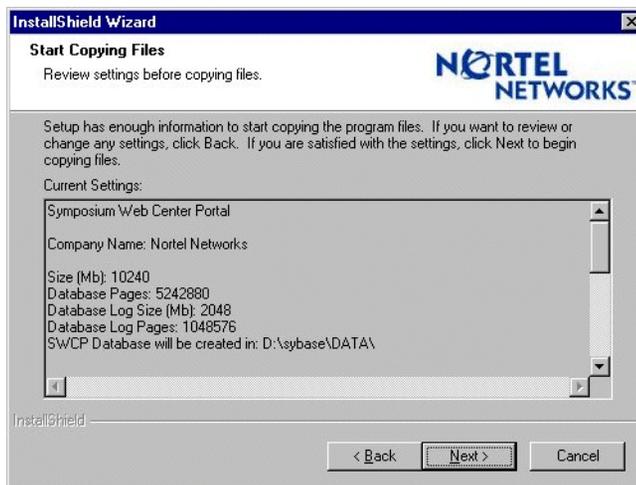
**12** Click OK.

Result: The Symposium Web Center Portal Database host name window appears.



- 13 Type the host name of the database server, and then click Next.

Result: The Start Copying Files window appears.



- 14 If the details you entered during setup are correct, click Next.

Result: The database component starts installing. This takes at least one hour.

Note: Do not close any windows. DOS windows open and close as the database installs.

- 15 When the Installation is complete, select “Yes, I want to restart my computer now,” and then click Finish.

Note: When you install the database, the system automatically installs the SWRS TxnMonitor, the WebResponse RT Service, and the WebResponse Scheduler.

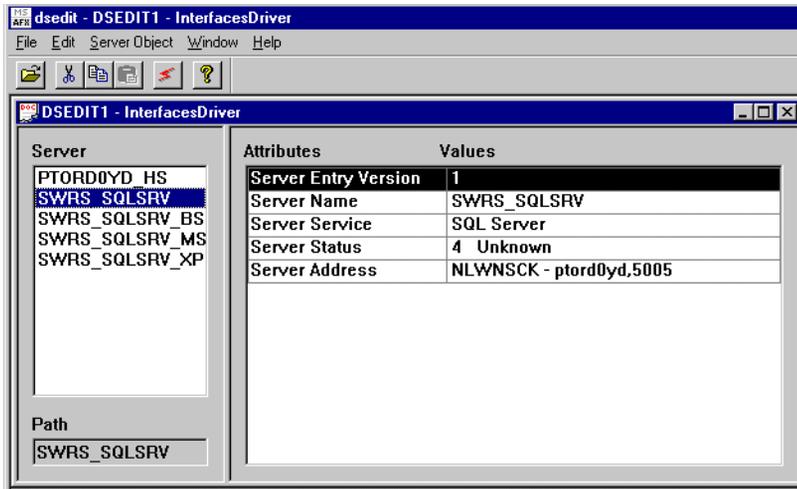
Installation checkpoint

Follow this procedure to ensure that the database you just created can be accessed.

To ensure the database can be accessed

- 1 Log on to Windows NT 4.0 using the Administrator user ID.
- 2 Ensure that the Sybase services are running. For more information, refer to the “Installing Sybase Adaptive Server Enterprise” on page 87.
- 3 On the Windows Start menu, choose Programs → Sybase → DSEdit.

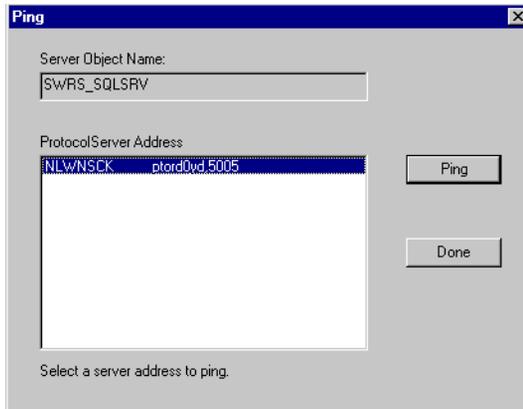
Result: The dsedit window appears.



- 4 Select the server that you just set up, SWRS_SQLSRV.
- 5 Click Server Object.

6 Click Ping Server.

Result: The Ping window appears.

**7** Click Ping.

Result: If the database has been set up correctly, the following message appears:

```
Open connection to server SWRS_hostname succeeds  
Closed connection succeeds
```

8 Click Done.**9** Close all windows.

Other required applications

Introduction

This section provides the procedures to install or configure the following applications, or both:

- Sybase Open Client (Agent Interface server, External Web server, and Administrator stand-alone server)
- Windows Script (Agent Interface server)
- MDAC (Agent Interface server, External Web server, and Symposium Web Center Portal server in a two-server configuration)
- Microsoft Posting Acceptor (Symposium Web Center Portal server)
- JRE (J2SE) (Agent Interface server, External Web server, and Agent PCs)

Install or configure the software, or both, on each server as per the requirements for each server. For more information, refer to “Installation sequence” on page 70.

Installing Sybase Open Client

The following Symposium Web Center Portal components require Sybase Open Client:

- stand-alone Agent Interface (if you have a two-server configuration)
- stand-alone Administrator (optional)
- Customer Interface and Web Communication Manager (optional)

To install Sybase Open Client

- 1 Log on to the computer using the Windows NT 4.0 Administrator user ID.
- 2 On the Windows Start menu, click Run.
- 3 Browse to Sybase11_5 on the CD-ROM.
- 4 Double-click Setup.exe.

Result: The Sybase installation Welcome window appears.

- 5 Click Next.
- 6 Select Licensed products, and then click Next.
- 7 Choose a folder in which to install Sybase.
- 8 Click Next to accept the default program folder.
- 9 In the Product Selection window, select Open Client, and then select ODBC driver.
- 10 Ensure that all the other components are not selected.
- 11 Click Next.
- 12 Click Install.
Result: The SQL.INI dialog box appears.
- 13 Select Ignore for now, and then click OK.
- 14 You must now install the Sybase EBF. For more information, refer to “To apply the Sybase EBF” on page 90.
- 15 Once you apply the Sybase EBF, you must follow the procedure below to set up the ODBC driver.

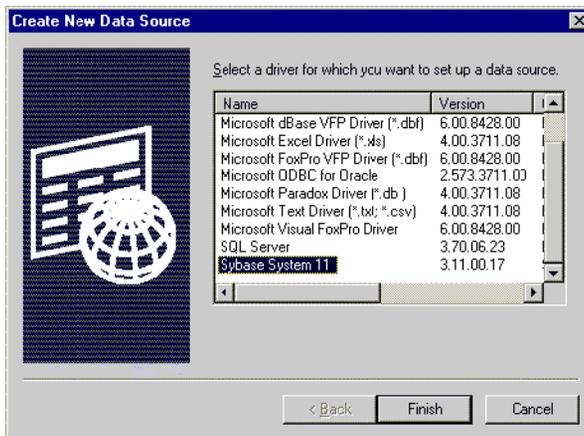
To set up the ODBC driver

After you install Sybase Open Client you must set up the ODBC driver.

- 1 On the Start menu, click Settings → Control Panel.
- 2 Double-click the ODBC Data Sources icon.

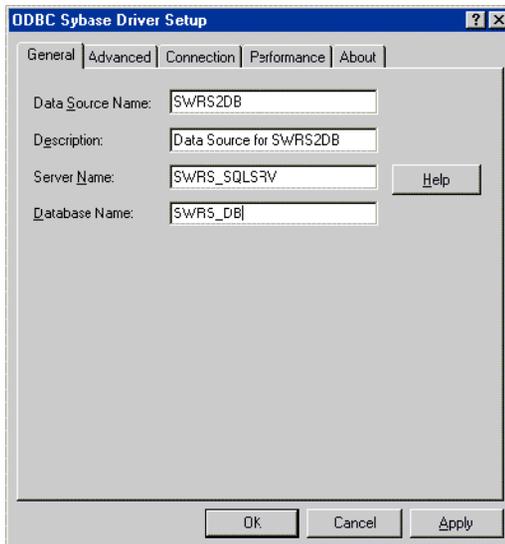
- 3 On the System DSN tab, click Add.

Result: The Create New Data Source window appears.



- 4 Select Sybase System 11, and then click Finish.

Result: The ODBC Sybase Driver Setup window appears.



- 5 In the Data Source Name box, type **SWRS2DB**.
- 6 In the Description box, type **Data Source for SWRS2DB**.

- 7 In the Server Name box, type **SWRS_SQLSRV**.
- 8 In the Database Name box, type **SWRS_DB**.
- 9 Click Apply, and then click OK.
- 10 Exit the window.

To install Windows Script

- 1 Log on to the Agent Interface Server with the Windows NT 4.0 Administrator user ID.
- 2 Insert the Nortel Networks Symposium Web Center Portal CD-ROM in the CD drive.
- 3 If the Menu window appears, click Exit.
- 4 Locate the file ste50en.exe in the folder D:\Utility Software folder, where D: is the CD drive.
- 5 Double-click ste50en.exe.
- 6 Click Continue.
- 7 Click Yes to accept the License Agreement.
Result: The Script Version 5.0 window appears.
- 8 Once the setup has been completed, click OK.

To install Microsoft Data Access Components

- 1 If you are installing Symposium Web Center Portal on a one-server configuration, you must shut down all of the Symposium Web Center Portal services before you install Microsoft Data Access Components (MDAC). For more information, refer to “Shutting down the Symposium Web Center Portal server” on page 191. You must also disable any antivirus software on the computer before you install MDAC.
- 2 Log on to the Agent Interface Server PC with the Windows NT 4.0 Administrator user ID.
- 3 Insert the Nortel Networks Symposium Web Center Portal CD-ROM in the CD drive.
- 4 Click Exit.

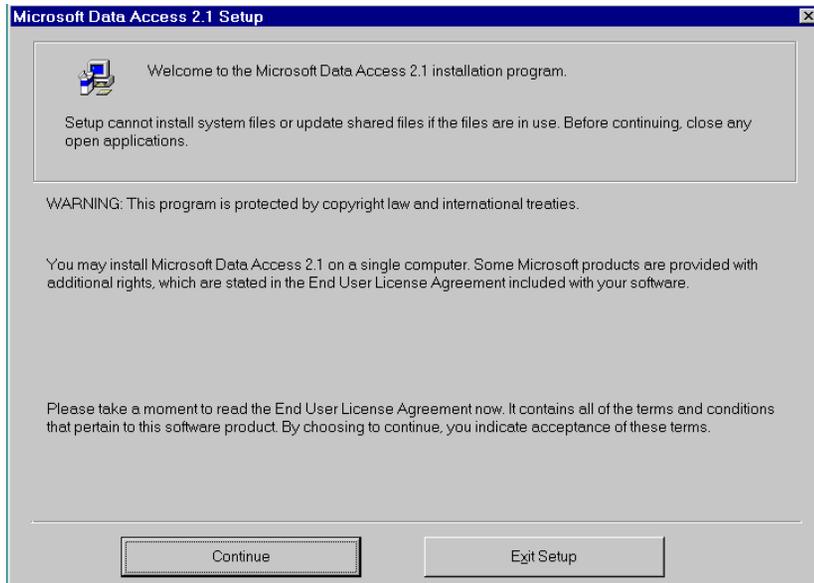
- 5 Locate the file MDAC_typ.exe in the Utility Software folder on the Symposium Web Center Portal CD-ROM.

- 6 Double-click MDAC_typ.exe.

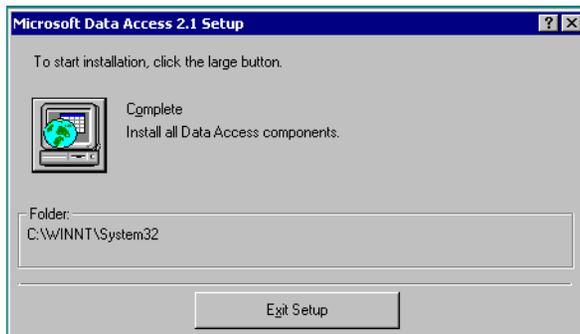
Result: The License agreement window appears.

- 7 Click Yes to agree to the terms of the license agreement.

Result: The Microsoft Data Access 2.1 Setup window appears.



- 8 Click Continue.



- 9 Click the Complete icon .

Result: The installation begins.

- 10 When the installation is complete, click OK.

To install JRE (J2SE)

You require JRE (J2SE) to run Java applications and applets on Windows. You must install JRE (J2SE) on the Agent Interface and External Web Server.

- 1 Log on to the Agent Interface server with the Windows NT 4.0 Administrator user ID.
- 2 Perform one of the following tasks:

IF	THEN
you are installing the Agent Interface component on the Symposium Web Center Portal server	on the Symposium Web Center Portal CD-ROM, browse to the Jre directory, double-click jre-1_2_2_006-win-i.exe, and then continue to step 3. Pentium IV computers require J2SE 1.2.2_012 (or later of the J2SE 1.2.2 stream). For more information, refer to the Sun Microsystems web site.
you are installing the Web Communication Manager	go to the Sun Microsystems web site and download the latest J2SE (Standard Edition) for Windows. Proceed with the installation instructions provided by Sun Microsystems.

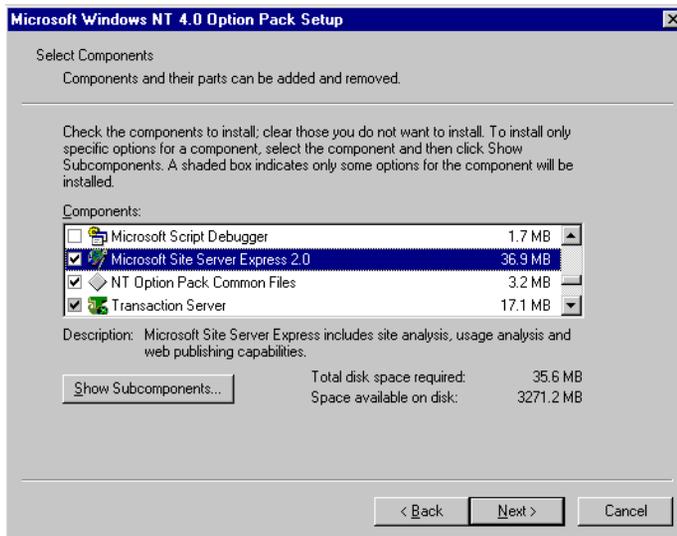
- 3 Read the License Agreement, and then click Yes.
- 4 Follow the instructions as they appear on the screen and accept all the defaults.
- 5 When the installation is complete, click OK.

To install the Microsoft Posting Acceptor

You must install the Microsoft Posting Acceptor on the Symposium Web Center Portal server from the Windows NT 4 Option Pack CD. Follow the steps below to install the Posting Acceptor where there is an existing IIS installation:

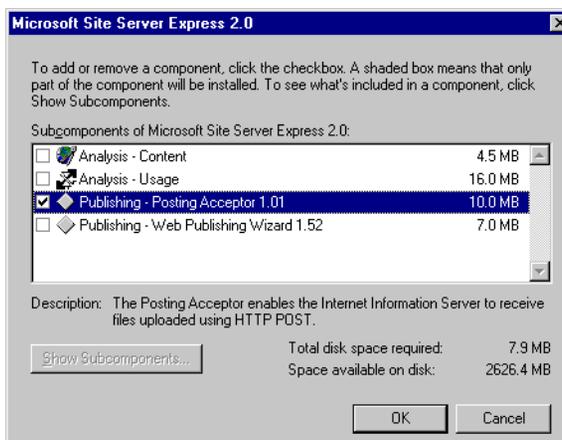
- 1 Insert the Windows NT Option Pack CD-ROM in the CD-ROM drive.
- 2 Run the Windows NT Option setup.
- 3 Click Add/Remove.

Result: The following window appears:



- 4 Click Show Subcomponents.

Result: The following window appears.



- 5** Select Publishing - Posting Acceptor 1.01, and then click OK.
- 6** Click Install.

Installing the Agent Interface

Introduction

You can install the Agent Interface on the Symposium Web Center Portal Server inside a firewall. Agents do their work using Internet Explorer 5.0 (or later). The Agent Interface component is installed on the Symposium Web Center Portal database server, not on each agent's PC.

You can also install the Agent Interface on a separate server.

Notes:

- The Agent Interface installation cannot start unless Option Pack 4 is installed. For more information about system requirements, see "Supported configurations" on page 24.
- If you want to move the Agent Interface component off the Symposium Web Center Portal server, see "Decoupling the Agent Interface" on page 367.

Information you need

To complete the installation, you need to know

- the path to the web server root directory. This is usually `c:\inetpub\wwwroot`.
- the host name of the server where the FLEXlm License Manager is installed
- the host name of the server where the Customer Interface is installed (optional)

Before you begin

Before you install the Agent Interface, you must install

- Sybase Open Client. Sybase Open Client is installed as part of Sybase Adaptive Server Enterprise. You must install it separately if you are

installing the Agent Interface on a two-server configuration. For more information, refer to “Other required applications” on page 100.

- Windows Script. For more information, refer to “Installing Sybase Open Client” on page 100.
- Microsoft Data Access Components (MDAC). For more information, refer to “To install Microsoft Data Access Components” on page 103.
- JRE (J2SE). For more information, refer to “To install JRE (J2SE)” on page 105.
- Microsoft Posting Acceptor. For more information, refer to “To install the Microsoft Posting Acceptor” on page 105. In a two-server configuration, you must install the Posting Acceptor on the Symposium Web Center Portal server.

To install the Agent Interface

- 1 Log on to the server on which you plan to install the Agent Interface component, using the Administrator user ID.
- 2 Insert the Nortel Networks Symposium Web Center Portal CD-ROM into the CD drive. If the installation program does not start automatically, then run setup.exe from the CD.

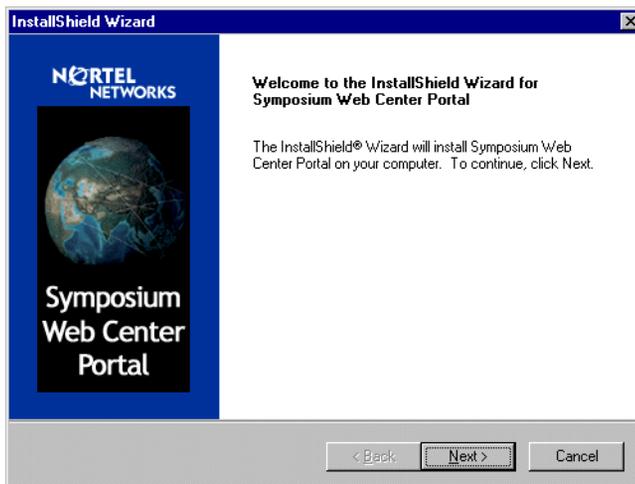
Result: The Symposium Web Center Portal Install window appears.



- 3 Click Agent Interface.

- 4 If prompted to update the Windows Scripting Library, click No.
- 5 If you are prompted to install the Microsoft Data Access Components (MDAC), click No. (It is already installed.)

Result: The Welcome window appears.

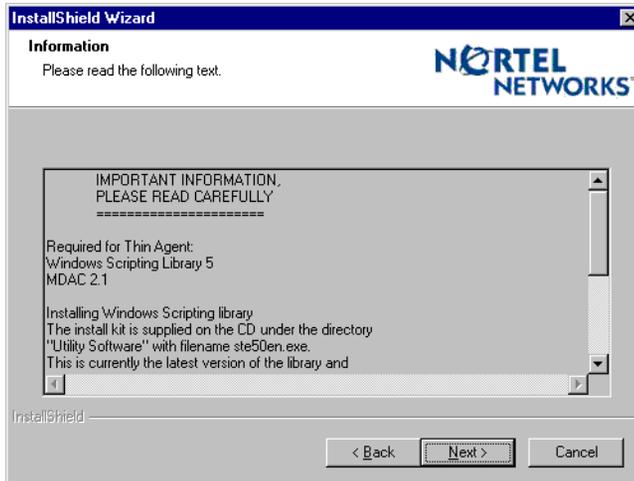


- 6 Click Next.

Result: The Software License Agreement window appears.

- 7 Click Yes to accept the license agreement.

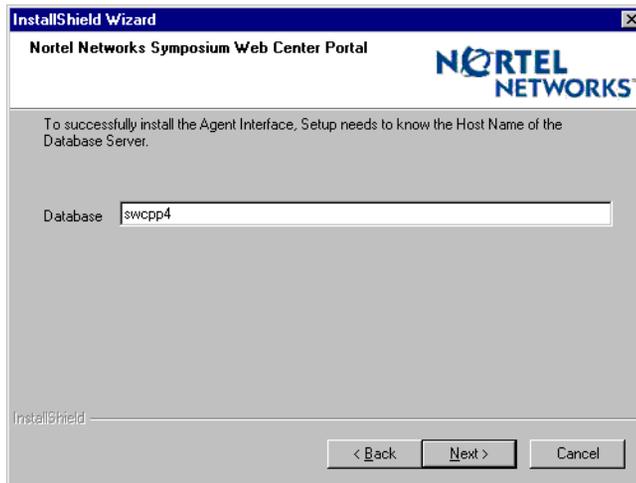
Result: The Information window appears.



- 8 Click Next.
- 9 Confirm the paths to the Web server root directory, usually C:\inetpub\wwwroot, and then click Next.

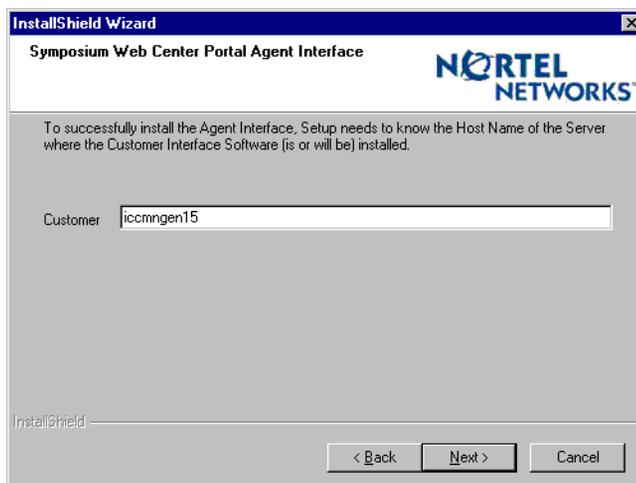
- 10 Confirm or type the host name of the server where the FLEXIm License Manager is installed, and then click Next.

Result: The Symposium Web Center Portal database host name window appears.



- 11 Confirm or type the host name of the server on which you installed the database.

Result: The Symposium Web Center Portal customer host name window appears.



- 12** Type the host name of the server where the Customer Interface is installed, and then click Next.
- 13** Confirm the settings, and then click Next.
Result: The Setup Status window appears.
- 14** If you are prompted to overwrite Read Only files, click Yes.
Result: The installation begins. Ignore any DOS windows that appear.
- 15** When the Setup Complete dialog box appears, perform one of the following tasks:

IF	THEN
you are installing the Agent Interface on a one-server configuration	select No, I will restart the computer later, and then click Finish. You can continue installing the rest of the components.
you are installing the Agent Interface on a two-server configuration	select Yes, I will restart the computer now, and then click Finish. You must now install all the necessary PEPs and SUs. For more information, refer to "Installing software PEPs and service updates" on page 187.

Configuring IIS for Symposium Web Center Portal Agent Interface

You must configure the following virtual directories:

- Agent (on the Agent Interface server)
- Admn (on the Agent Interface server)
- Uploads (on the Symposium Web Center Portal server)

The Agent and Admn directories already exist. You must change these directories to provide execute access. The Agent directory contains the web pages that are accessed by agents at their desktop. The Admn directory contains the web pages that are accessed through the Administrator component to view customer details.

The Uploads virtual directory is created on the Symposium Web Center Portal server and set to point at the outbound attachment folder. The Uploads directory

is used in conjunction with Microsoft Posting Acceptor. The Microsoft Posting Acceptor should be installed prior to creating the Uploads virtual directory. For more information, refer to “To install the Microsoft Posting Acceptor” on page 105.

To configure the Agent virtual directory

- 1 Log on to the server on which you installed the Agent Interface using the Windows NT 4.0 Administrator user ID.
- 2 On the Windows Start menu, choose Programs → Windows NT 4.0 Option Pack → Microsoft Internet Information Server → Internet Service Manager.

Result: The Internet Information Service window appears.

- 3 Click the plus sign (+) beside Internet Information Service.
- 4 Click the plus sign (+) beside the host name of the server on which you installed the Agent Interface.
- 5 Click Default web site.
- 6 Right-click the Agent folder, and then choose Properties.

Result: The Agent Properties window appears.



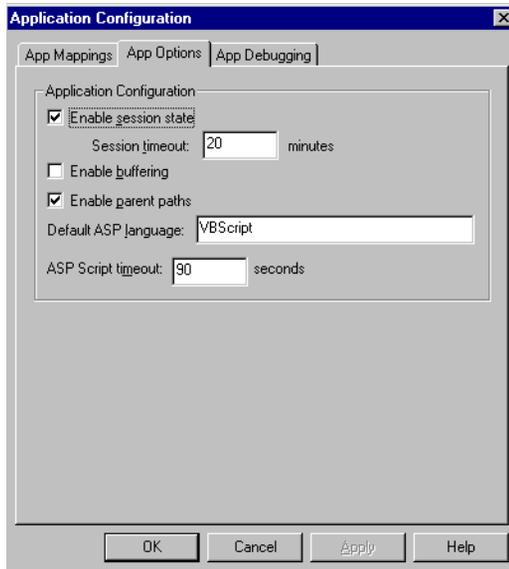
7 On the Directory tab, under the Permissions heading, set Permissions to Execute (including script).

8 On the Directory tab, click Create.

Result: The Create button changes to Remove.

9 Click Configuration.

Result: The Application Configuration window appears.



10 Click the App Options tab.

11 Ensure Enable session state is checked.

12 Ensure the session timeout value is set to reflect the number of minutes an agent's session can be idle and still remain logged on.

Note: Nortel Networks recommends a value of at least 20 minutes. If you do not have SU05 installed, you must ensure that this value matches the one in the global.asa file. If you have SU05 installed, you do not need to configure the global.asa file.

13 Click OK to exit the Application Configuration window.

14 Exit the Console. Click OK to save the settings.

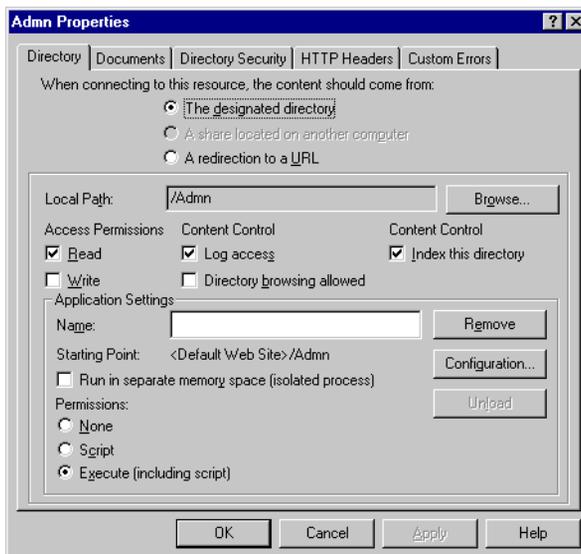
To configure the Admn virtual directory

- 1 Log on to the server on which you installed the Agent Interface using the Windows NT 4.0 Administrator user ID.
- 2 On the Windows Start menu, choose Programs → Windows NT 4.0 Option Pack → Microsoft Internet Information Server → Internet Service Manager.

Result: The Microsoft Management console window appears.

- 3 Click the plus sign (+) beside Internet Information Service.
- 4 Click the plus sign (+) beside the host name of the server on which you installed the Agent Interface.
- 5 Click Default web site.
- 6 Right-click the Admn folder, and then choose Properties.

Result: The Admn Properties window appears.



- 7 On the Directory tab, under the Permissions heading, set the Permissions to Execute (including script).
- 8 Click Create.

Result: The Create button changes to Remove.

- 9 Click Configuration.
Result: The Application Configuration window appears.
- 10 Click the App Options tab.
- 11 Check Enable Session State.
- 12 Keep the default of the session timeout value. It is set to reflect the number of minutes that an Admin web page can be left idle after it is opened by the Symposium Web Center Portal administrator.
- 13 Click OK to exit the Application Configuration window.
- 14 Click OK to exit the Admn properties window.

Configuring the Uploads virtual directory

- 1 Log on to the Symposium Web Center Portal server using the Windows NT 4.0 Administrator user ID.
- 2 On the Windows Start menu, choose Programs → Windows NT 4.0 Option Pack → Microsoft Internet Information Server → Internet Service Manager.
Result: The Microsoft Management console window appears.
- 3 Click the plus sign (+) beside Internet Information Service.
- 4 Click the plus sign (+) beside the host name of the Symposium Web Center Portal server.
- 5 Right-click Default web site, and choose New → Virtual Directory.
- 6 In the Alias to be used to access virtual directory box, type **Uploads**, and then click Next.
- 7 Browse to the directory path to the outbound mail folder, and then click Next.
- 8 Select Allow Read Access, Allow Script Access, and Allow Write Access, and then click Finish.

Installing Symposium Web Center Portal Administrator

Introduction

You install the Administrator component on the Symposium Web Center Portal server. You can also install it on a separate PC for remote access. For more information about the system requirements for the independent Administrator client, see “Requirements for Symposium Web Center Portal Administrator client” on page 35.

The eMail Manager component is installed as part of the Administrator. You must always install the eMail Manager when you install the Administrator on the Symposium Web Center Portal server.

ATTENTION

Do not install the eMail Manager on a PC you are using for remote access. The steps required to include or exclude this component are outlined in the installation instructions that follow.

Before you begin

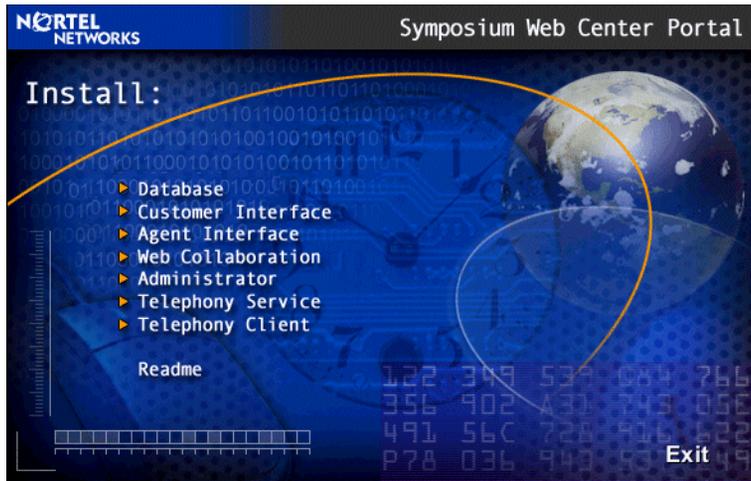
If you are installing the Administrator on a separate PC, you must install Sybase Open Client and Sybase EBF. For more information, see “Other required applications” on page 100. If you are installing the Administrator on the same computer as the one on which you installed the database component, then these components were already installed as part of the Sybase Adaptive Server installation.

To install Symposium Web Center Portal Administrator

- 1 Log on to the Administrator PC using the Windows NT 4.0 Administrator user ID.

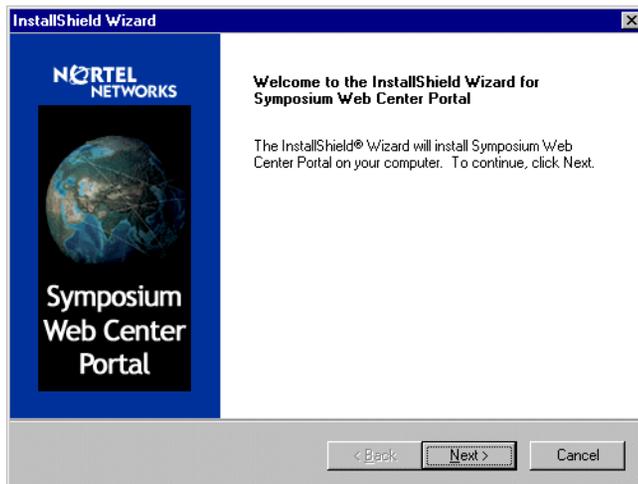
- 2 Insert the Nortel Networks Symposium Web Center Portal CD-ROM into the CD drive. If the installation program does not start automatically, then run setup.exe from the CD.

Result: The Symposium Web Center Portal Install window appears.



- 3 Click Administrator.

Result: The Welcome window appears.



4 Click Next.

Result: The License Agreement window appears.

5 Click Yes to accept the License Agreement.

Result: The Information window appears.

6 Read the special requirements, and then click Next.

Result: The Symposium Web Center Portal Administrator database host name window appears.

InstallShield Wizard

Symposium Web Center Portal Administrator

NORTEL NETWORKS™

Setup requires the Host Name of the server where the Database is installed.
Please enter the Host Name in the box provided.

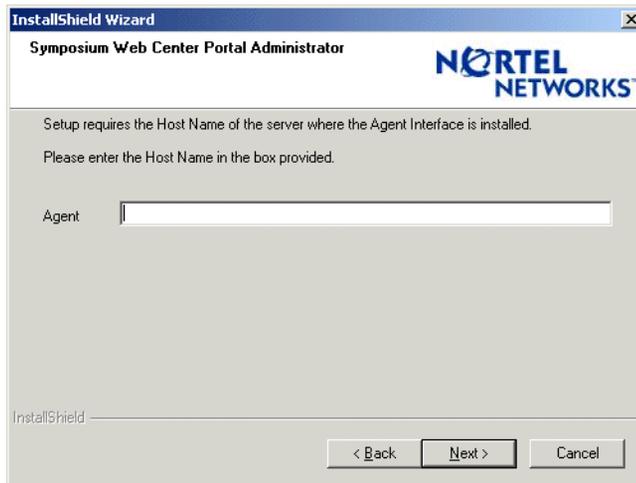
Database

InstallShield

< Back Next > Cancel

- 7 Type the host name where the Symposium Web Center Portal database is installed, and then click Next.

Result: The Symposium Web Center Portal Administrator agent host name window appears.

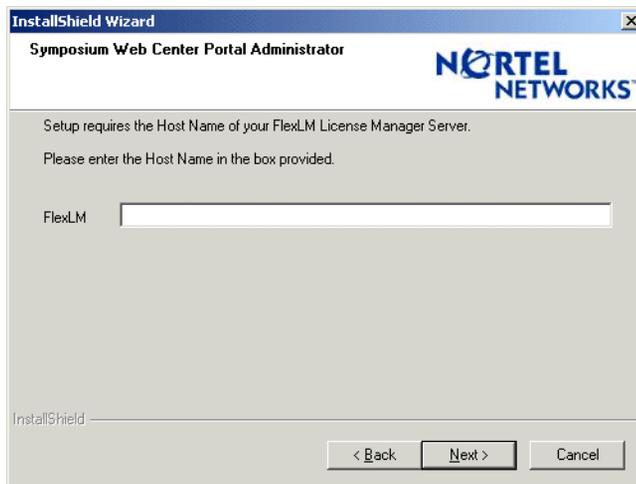


- 8 Type the host name of the server where the Symposium Web Center Portal Agent Interface will be installed.

Result: The Symposium Web Center Portal Administrator customer host name window appears.

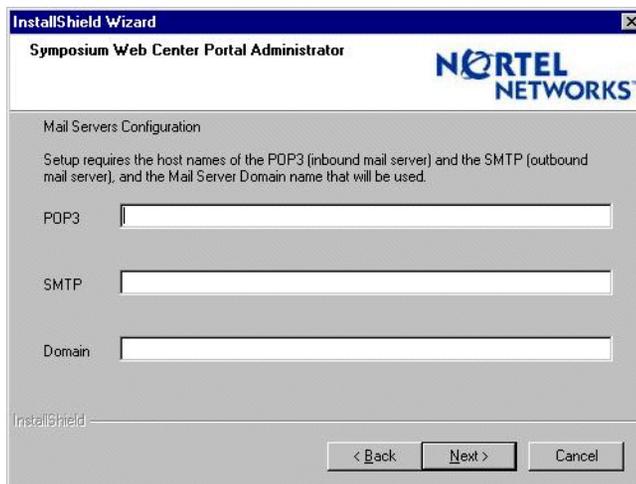
- 9 Type the host name of the server where the Symposium Web Center Portal Customer Interface will be installed.

- 10 The Symposium Web Center Portal Administrator FlexLM window appears.



- 11 Type the host name of the server where the FlexLM License Manager is installed, and then click Next.

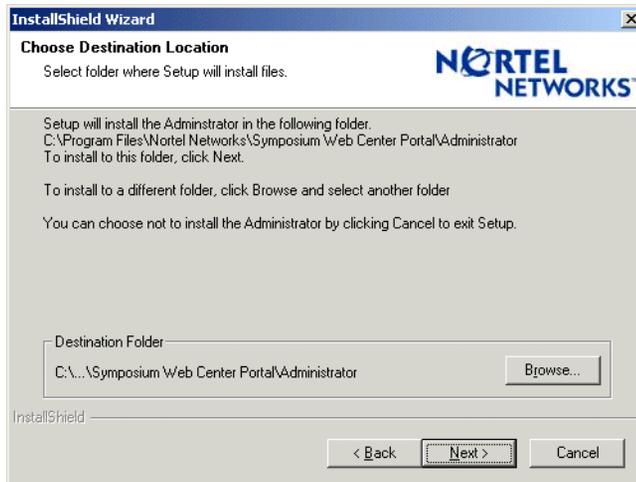
Result: The Mail Servers Configuration window appears.



- 12 In the POP3 box, type the host name of the Inbound e-mail server.
- 13 In the SMTP box, type the host name of the outbound e-mail server.

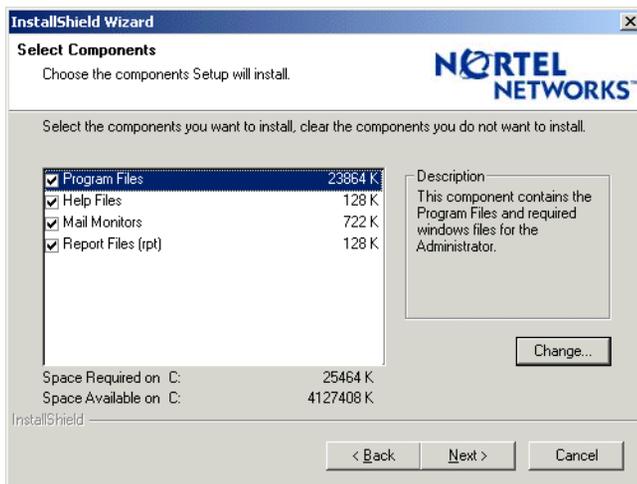
- 14 In the Domain box, type the domain name that is appended to the end of the e-mail addresses where Symposium Web Center Portal responses originate. For example, if you are expecting an e-mail response from the e-mail info@letronix.com, then you must type letronix.com.
- 15 Click Next.

Result: The Choose Destination Location window appears.



- 16** Edit or accept the destination folder for the Administrator program, and then click Next.

Result: The Select Components dialog box appears.



- 17** Perform one of the following tasks:

IF

THEN

you are installing the Administrator on the Symposium Web Center Portal server

click Next to accept the defaults.

you are installing the Administrator on a separate PC

clear the Mail Monitors check box, and then click Next.

Note: You can only install Symposium eMail Manager on the Symposium Web Center Portal server.

Result: The Start Copying Files window appears.

- 18** Review the settings. If they are correct, click Next.

19 When setup is complete, perform one of the following tasks:

IF	THEN
you are installing the Administrator on the Symposium Web Center Portal server	select No, I will restart the computer later, and then click Finish. You can continue installing the rest of the components. (See "Installing the Telephony Service" on page 129.)
you are installing the Administrator on a separate PC	select Yes, I will restart the computer, and then click Finish. Install all the necessary PEPs and SUs. For more information, refer to "Installing software PEPs and service updates" on page 187.

Configuring the inbound e-mail attachment directories

Introduction

When agents receive or send e-mails that include file attachments, the attached files are stored centrally in special inbound and outbound directories. The installation process creates directories for this purpose on the Symposium Web Center Portal server in the folder C:\SWRSMail. Nortel Networks recommends that you create this folder on a separate partition with a minimum of 4 GBytes of free space, and use this location exclusively for e-mail attachments.

The Symposium eMail Manager runs as a Windows NT Service on the Symposium Web Center Portal server. You must configure the eMail Manager service to run automatically on startup, and assign it local administrator logon privileges. Otherwise, the service cannot access attachments.

Complete the following steps:

- Share the inbound e-mail attachment directories on the network.
- Specify the e-mail attachment directories in the Symposium Web Center Portal Administrator.
- Install and configure Microsoft Posting Acceptor on the Symposium Web Center Portal server (you should have already completed this step). For more information, refer to “To install the Microsoft Posting Acceptor” on page 105.
- Configure the Symposium eMail Manager Service to run with Administrator privileges.

To share inbound e-mail attachment directories

- 1 Log on to the Symposium Web Center Portal server with administrator privileges.
- 2 Use Windows Explorer to create the new folder in which you want to store the inbound file attachments (for example, C:\SWRSMail\attachments\inbound).

- 3 Right-click the folder name, and then choose Sharing.
- 4 Select Shared As, and then enter the name you want agents to see for this folder (for example, Inbound File Attachments).
- 5 In the Comment box, type **Symposium Web Center Portal File Attachments**.
- 6 Click Permissions, and ensure that all agents have at least Read access to this shared directory.
- 7 Click OK twice.

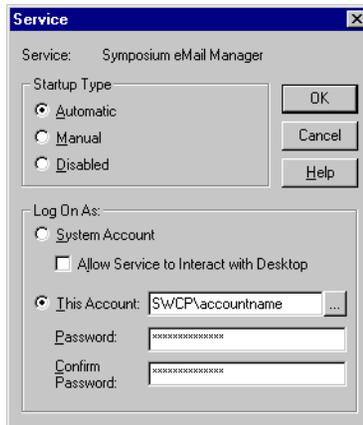
To specify the e-mail attachments directories

- 1 From the Windows Start menu, choose Programs → Nortel Networks - Symposium Web Center Portal → Administrator → Administrator.
- 2 Log on as an administrator with the User ID “SysAdmin,” the Password “Nortel,” and the Access Class “Administrator,” and then click OK.
- 3 Click the plus sign (+) next to E-mail Administration, and then double-click E-Mail Configuration.
- 4 Click the Settings tab.
- 5 Click Browse beside the Inbound box, and then select the computer name and the shared folder directory for inbound file attachments.
- 6 Click Browse beside the Outbound box, and then select the computer name and shared folder. This must be the same directory as the Uploads directory configured when you install the Microsoft Posting Acceptor.
- 7 Click Apply.

To configure the settings to run the Symposium eMail Manager

- 1 From the Windows Start menu, choose Settings → Control Panel → Services.
- 2 Highlight the service Symposium eMail Manager, and then click Startup.

Result: The Service window appears.



- 3 Choose Startup Type as Automatic.
- 4 Select This Account.
- 5 In the This Account box, choose or type the name of the account.
Note: The account must have local administrative privileges on the Symposium Web Center Portal server.
- 6 In the Password box, type the password for the account.
- 7 In the Confirm Password box, type the password for the account again.
- 8 Click OK.
- 9 Click Start.

Installing the Telephony Service

Introduction

The Dynamic Transaction Handler (DTH) is installed as part of the Telephony Service. The DTH presents new transactions to agents who are assigned to work in push mode. You install the Telephony Service on the Symposium Web Center Portal server. For more information about Telephony Service, refer to “About Symposium Web Center Portal” on page 16.

ATTENTION

The Telephony Service component must *not* be installed on the same PC as the TAPI server. Telephony Service and the TAPI server must be members of the same domain, or have a trust relationship established between their domains. For more information about trust relationships, refer to your Windows NT and TAPI documentation.

Before you begin

You must perform the tasks in the table below before you install the Telephony Service:

Component	Setup	Result
Windows Primary Domain Controller	<ul style="list-style-type: none"> ■ Create Windows accounts for each agent and the DTH. 	Enables each user to have different permissions on the TAPI lines.
Telephone Switch	<ul style="list-style-type: none"> ■ Create the Agent and DTH lines. 	Allows the DTH to make calls and agents to receive calls.

Component	Setup	Result
TAPI Service Provider	<ul style="list-style-type: none"> ■ Install TAPI Service Provider (or later). ■ Add the agent and DTH lines to the TAPI database. ■ On Windows NT, use TCMapp to assign lines to the DTH and agent user accounts. Refer to “Configuring the TAPI server” on page 481 and to the TAPI documentation. 	The TAPI Service Provider enables calls from other applications to the switch.
Symposium Web Center Portal server	<ul style="list-style-type: none"> ■ Run TCMSETUP to enable TAPI. Refer to “Configuring the Transaction Monitor” on page 178. 	Establish TAPI communication between the TAPI Service Provider and Symposium Web Center Portal server.
Agent PC	<ul style="list-style-type: none"> ■ Install and configure Telephony Client. Run TCMSETUP to enable TAPI. Refer to “Installing the Telephony Service” on page 129. 	Allows agent PCs to accept or reject pushed transactions.
Symposium Web Center Portal Administrator	<ul style="list-style-type: none"> ■ Configure the skillset properties. For more information, refer to “Managing skillsets” on page 210. 	Allows the DTH to obtain the CDN of the skillset from the database to make a call.
Verify Setup	<ul style="list-style-type: none"> ■ Use the Phone Dialer to make a call from a DTH line to an agent line. 	The call is made successfully.

To install the Telephony Service

- 1 Log on to Windows NT Server with the Windows NT 4.0 Administrator user ID.
- 2 Insert the Nortel Networks Symposium Web Center Portal CD-ROM into the CD drive. If the installation program does not start automatically, then run setup.exe from the CD.

Result: The Symposium Web Center Portal Install window appears.

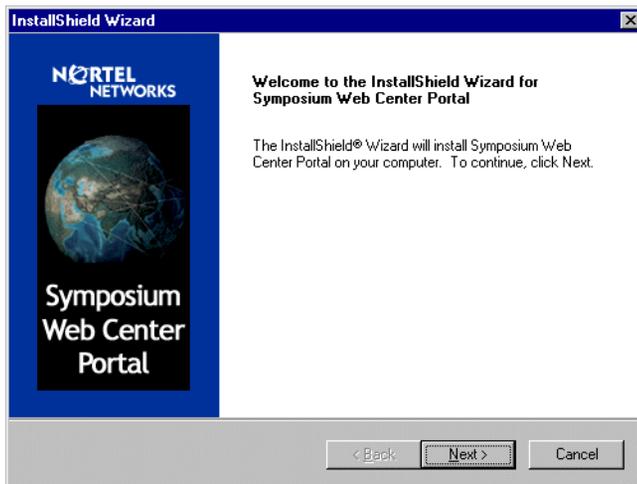


- 3 Click Telephony Service.
- 4 When prompted to install the Microsoft Data Access Components (MDAC), choose No if you have a one-server configuration (MDAC is installed as a

pre-requisite on the Agent Interface). Choose Yes if you have a two-server configuration.

Note: You must install MDAC on this PC for the Telephony Service to work.

Result: The Welcome window appears.

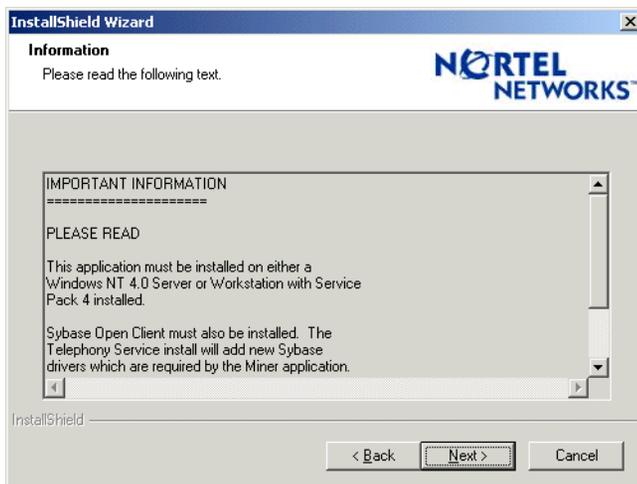


- 5 Click Next.

Result: The License Agreement window appears.

- 6 Click Yes to accept the license agreement.

Result: The Information window appears.

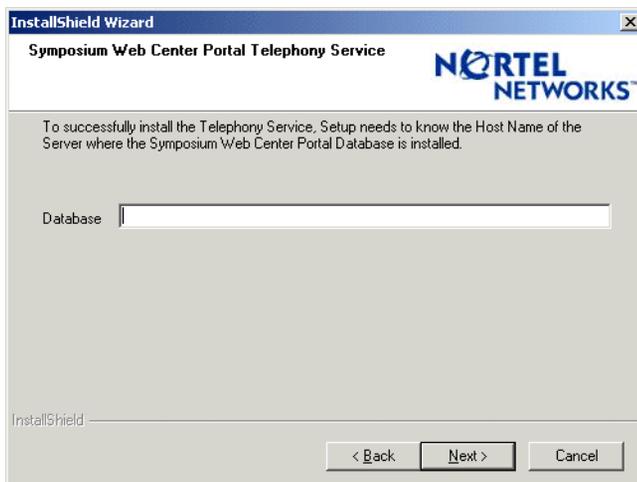


- 7 Click Next.

Result: The Choose Destination Location window appears.

- 8 Confirm the destination folder, and then click Next.

Result: The Symposium Web Center Portal Telephony Service database host name window appears.



- 9 Type or confirm the host name of the Symposium Web Center Portal database server, and then click Next.

Result: The Start Copying Files window appears.

- 10 Click Next.

- 11 When the Setup Complete window appears, select Yes, I will restart the computer now, and then click Finish.

Note: You have completed the installation of the Symposium Web Center Portal server components. You must also install all the necessary PEPs and SUs. For more information, refer to “Installing software PEPs and service updates” on page 187.

Configuring the Dynamic Transaction Handler

Introduction

Symposium Web Center Portal uses the TAPI server to generate calls to the specified skillsets. You must configure each of the agent's phonesets and the TAPI Service Provider.

Configuration sequence

- Create a new Windows account with Administrator privileges to configure the DTH TAPI lines. Nortel Networks recommends creating a new user (dth_admin) to administer the DTH. This user is assigned the DTH TAPI lines. From this point onwards, you should log on to the Symposium Web Center Portal server using this (dth_admin) account.
- Create a TAPILineId.txt file. This designates which lines the DTH uses to place calls. The names of the TAPI lines in the TapiLineId.txt file are exactly the same as the lines specified on the TAPI Service Provider. The DTH searches for the TapiLineId.txt file when it starts. If it cannot find the TapiLineId.txt file, it uses the available DTH TAPI lines on the TAPI server to place calls.
- Run TCMSETUP on the Symposium Web Center Portal server to enable TAPI.
- Change the settings on the DTH to suit your hours of operation.

ATTENTION

Do not use the TAPI lines assigned to the DTH for any other telephony service. Only use these lines for outbound calls. These lines cannot accept calls.

Notes:

- For information about DTH line capacity and its effect on skillset priorities, see “Optimizing Symposium Web Center Portal performance parameters” on page 44.

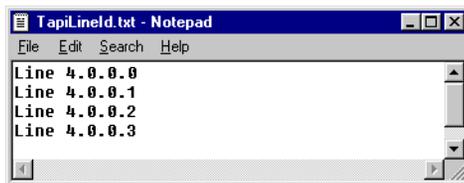
- When you configure the TAPI server, make sure the Call Data Lifespan is set with the appropriate value. For more information, see “Call Data Lifespan parameter” on page 485.

To create a Windows account to configure the DTH lines

- 1 Log on to the Symposium Web Center Portal server using the Windows Administrator user ID.
- 2 On the Windows start menu, choose Programs → Administrative Tools (Common) → User Manager.
- 3 Click User → New User.
- 4 In Username, type **dth_admin**.
- 5 Select a password and confirm it.
- 6 Clear the “User must change password at next logon” box, and check the “Password never expires” box.
- 7 Click Groups.
- 8 Choose Administrators and add it to the Group Membership box.
- 9 Click OK.
- 10 Click OK again, and then exit the User Manager window.

To designate the TAPI lines for Symposium Web Center Portal server

- 1 In a text editor, such as Notepad, create a file with the name TapiLineId.txt.
Note: The DTH only uses the lines that are specified.



- 2 Save the file to ..\Program Files\Nortel Networks\Symposium Web Center Portal\Telephony Service.
- 3 Stop the DTH.
- 4 Start the DTH.

To run TCMSETUP

The computer on which the Telephony Service is installed (Symposium Web Center Portal server) must be TAPI-enabled. You must run TCMSetup on this computer. For more information, refer to “Symposium Web Center Portal telephony components” on page 459.

- 1 Log on to the Symposium Web Center Portal Server using the Windows NT 4.0 Administrator user ID.
- 2 On the Start menu, click Run.
- 3 In the Open box, type **TCMSETUP /c SERVERNAME**, where *SERVERNAME* is the name of the server where the TAPI Service Provider is installed.
- 4 Log off the Administrator, and then log back on as the Administrator.
- 5 Use the TAPI Browser to verify the setup of the DTH on the Symposium Web Center Portal server. For more information, refer to your TAPI documentation.
- 6 When you are finished verifying the setup of the DTH, you must stop and exit the DTH, and then restart the DTH.

To stop the DTH

On the Status bar, right-click the DTH icon, and then click Stop.

To exit the DTH

On the Status bar, right-click the DTH icon, and then click Exit.

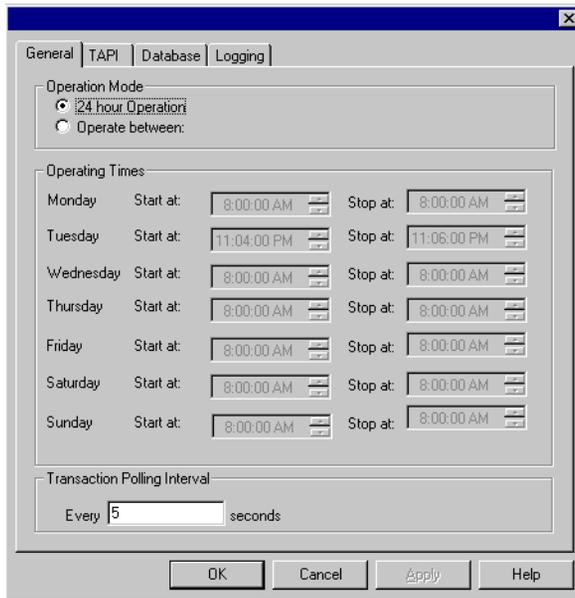
To start the DTH

On the Status bar, right-click the DTH icon, and then click Start.

To change the settings for the DTH

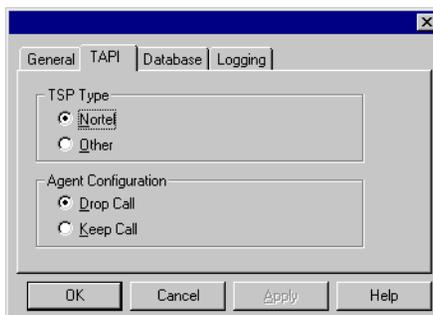
- 1 Double-click the DTH icon  on the Task bar.

Result: The following window appears:



- 2 On the General tab, enter the hours that you want the DTH to be active. If your call center runs 24 hours a day, select 24 hour Operation. Otherwise, enter the times to start and stop the DTH.
- 3 Click Apply, and then click the TAPI tab.

Result: The following window appears:



- 4 Select Nortel as the type of TAPI Service Provider that your call center uses.
- 5 For Agent Configuration, indicate how the DTH should handle calls when the agent accepts an incoming transaction.

IF

THEN

you want agents to be available to take other calls while they handle the current transaction

choose Drop Call.

you do not want the agent to receive new calls until they release the current transaction

choose Keep Call.

- 6 Click Apply, and then click the Database tab.

Result: The following window appears:

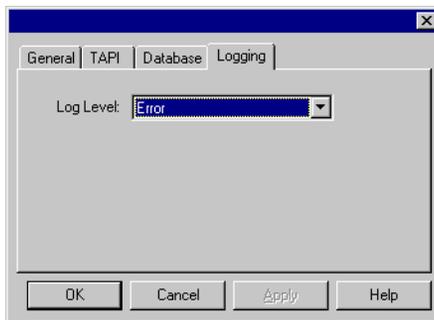


ATTENTION

The Data Source Name, User ID, and Password boxes are automatically configured during the Telephony Service Installation. Do not change this configuration.

- 7 Click the Logging tab.

Result: The following window appears:



- 8 Select the type of information that you want the DTH to write to the log. Choose Error, Information, or Warning from the drop-down list.
- 9 Click OK.

Result: The DTH starts automatically after 1 minute, unless you start it immediately.

Using Symposium Web Center Portal DTH with Symposium Call Center Server Call Presentation Classes

Symposium Call Center Server Call Presentation Class	DTH mode
Forced	Keep: Decline option is greyed out. The agent phoneset stays connected when accepting. The phoneset goes on hold when an agent makes an outbound call from the Agent Interface. The phoneset is connected again when the agent hangs up the second (outbound) call from the Agent Interface.
	Drop: Decline option is greyed out. The agent's phoneset goes NRD when accepting.

Symposium Call Center Server Call Presentation Class	DTH mode
Not forced	Keep: Decline is offered. The agent's phoneset goes NRD if declining, and the transaction is put back in the skillset.
	Drop: Decline is offered. The Agent's phoneset goes NRD if declining, and the transaction is put back in the skillset. The agent's phoneset goes NRD when accepting.

DTH checkpoint

On the Symposium Web Center Portal server, use the phone dialer to test the lines. Place a call to the CDN. If the call does not go through, repeat the configuration again.

Installing the Customer Interface

Introduction

Install the Customer Interface component on the External Web server. This component captures the customers' web transactions and submits them to Symposium Web Center Portal. The External Web server must be available to the Internet if customers are outside the intranet.

Before you begin

To complete the installation, you must know the path to the web server root directory. For IIS, this is usually `c:\InetPub\wwwroot`. You also must know the path to the Web server scripts directories. If you do not have this information, refer to your Web server documentation.

To successfully install the Customer Interface, you must meet all the system requirements listed on page 30, and you must install the following:

- Sybase Open Client 11.5 and the EBF (see “To install Sybase Open Client” on page 100.)
- MDAC (see “To install Microsoft Data Access Components” on page 103.)

To install the Customer Interface

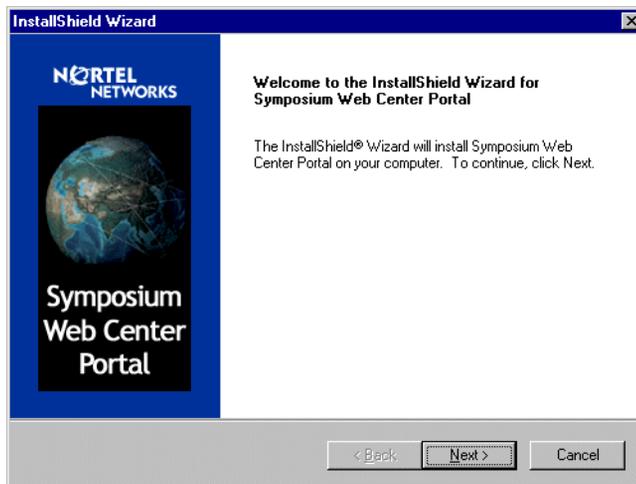
- 1 Log on to the External Web server using the Windows NT 4.0 Administrator user ID.
- 2 Insert the Nortel Networks Symposium Web Center Portal CD-ROM into the CD drive. If the installation program does not start automatically, run `Setup.exe` from the CD.

Result: The Symposium Web Center Portal Install window appears.



- 3 Click Customer Interface and follow the instructions as they appear on the screen.

Result: The Symposium Web Center Portal Welcome window appears.

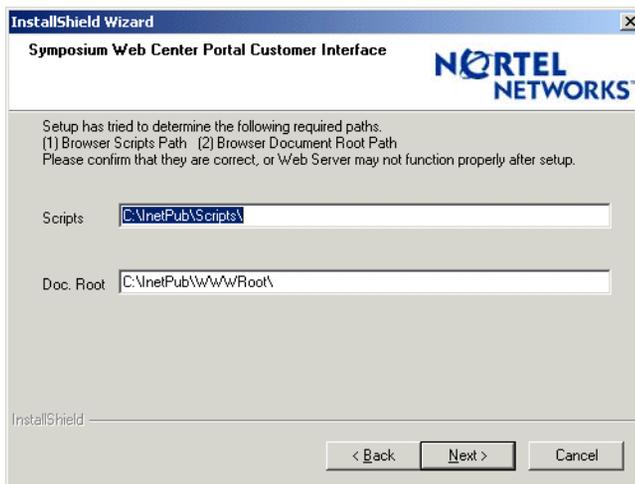


- 4 Click Next.

Result: The License Agreement window appears.

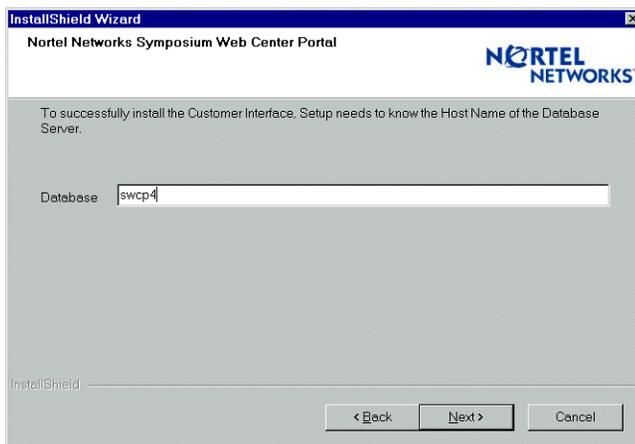
- 5 Click Yes to accept the agreement.

Result: The Symposium Web Center Portal Customer Interface window appears.



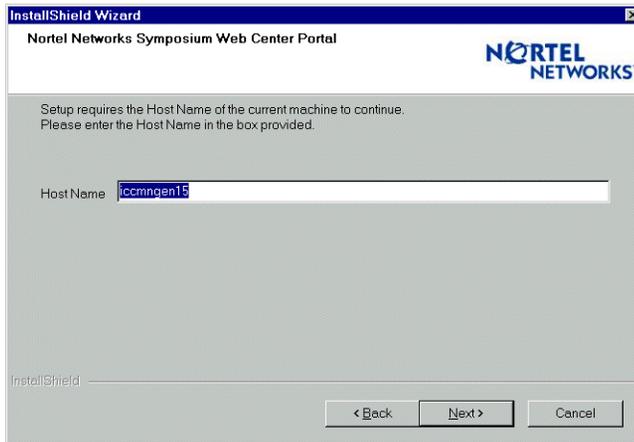
- 6 Click Next to accept the default paths.

Result: The Symposium Web Center Portal database host name window appears.



- 7 Type the host name of the server on which you installed the database, and then click Next.

Result: The Symposium Web Center Portal host name window appears.



- 8 Type the host name of the current computer on which you are installing this software, and then click Next.

Result: The Start Copying Files window appears.

- 9 Confirm the settings, and then click Next.

Result: Setup completes.

- 10 When the Setup Complete window appears, click Finish.

Note: You do not need to restart the computer if you are installing the Web Communication Manager.

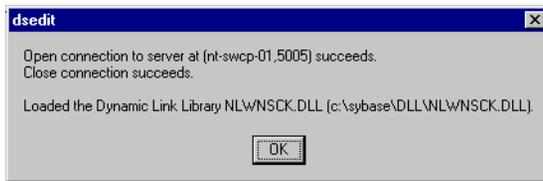
Installation checkpoint

To verify that the External Web server can communicate with the Symposium Web Center Portal server

- 1 From the Windows Start Menu, choose Programs → Sybase → Dsedit.
- 2 Click OK.
- 3 On the server column, select SWRS_SQLSRV.
- 4 From the Server Object menu, choose Ping Server.

- 5 Click Ping.

Result: The dsedit window appears.



- 6 Click OK, and then exit dsedit.

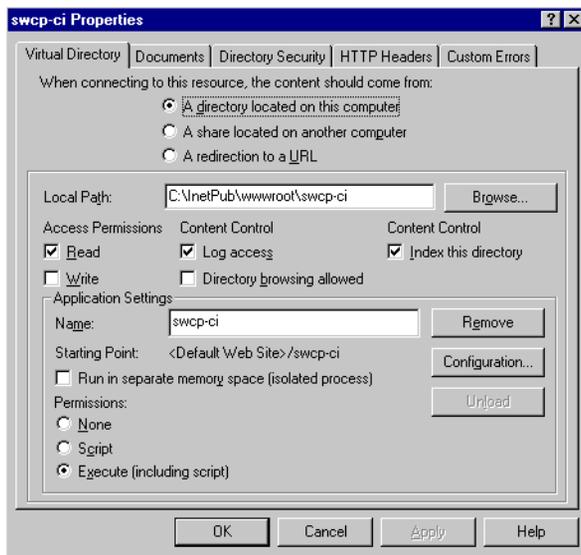
To configure IIS for the Customer Interface

You must configure Microsoft Internet Information Server (IIS) for the Customer Interface on the External Web server.

- 1 Log on to the External Web server using the Windows Administrator user ID.
- 2 On the Windows Start menu, choose Programs → Windows NT 4.0 Option Pack → Microsoft Internet Information Server → Internet Service Manager.
- 3 Click the plus sign (+) beside Internet Information Server.
- 4 Click the plus sign (+) beside the host name of the server.
- 5 Click to expand the Default web site.

- 6 Right-click swcp-ci, and then click Properties.

Result: The swcp-ci Properties window appears.



- 7 On the Virtual Directory tab, under the Permissions heading, set the Permissions to Execute (including script).
- 8 Click Create.
Result: The Create button changes to Remove.
- 9 Click Configuration.
- 10 Click OK.
- 11 Exit the console.

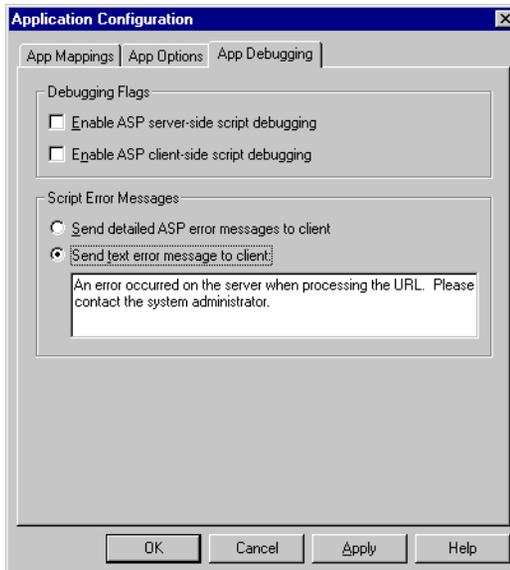
To create a personalized error message (optional)

Nortel Networks recommends that you create a personalized error message to be sent out when there is a problem with the External Web server.

- 1 Log on to External Web Server using the Windows Administrator user ID.
- 2 On the Windows Start menu, choose Programs → Windows NT 4.0 Option Pack → Microsoft Internet Information Server → Internet Service Manager.
- 3 Click the plus sign (+) beside Internet Information Server.

- 4 Click the plus sign (+) beside the host name of the server.
- 5 Click Default web site.
- 6 Right-click swcp-ci.
- 7 Click Properties.
- 8 Click Configuration.

Result: The Application Configuration window appears.



- 9 On the App Debugging tab, select Send text error message to client.
- 10 Type the error message you want customers to see.
- 11 Click OK.

Installing the Web Communication Manager

Introduction

Web Communication Manager is installed on the External Web server. To successfully install the Web Communication Manager you must perform the following tasks in this sequence:

1. Ensure that you installed the Customer Interface. For more information, refer to “Installing the Customer Interface” on page 142.
2. Install JRE (J2SE) on the External Web server. For more information, refer to “To install JRE (J2SE)” on page 105.
3. Install JRun 4.0 on the External Web server. For more information, refer “To install JRun 4.0” on page 150.
4. Install the Web Communication Manager on the External Web server. For more information, refer to “To install the Web Communication Manager” on page 154.
5. Set up the services for JRun. For more information, refer to “To set up the services for JRun” on page 160.
6. Configure JRun. For more information, refer to “To configure JRun” on page 162.
7. Configure IIS for the Web Communication Manager. For more information, refer to “To configure IIS for the Web Communication Manager” on page 172.
8. Configure IIS for Click Stream Tracking. For more information, refer to “To configure IIS for Click Stream Tracking” on page 174.

Installing JRun

You must install JRun 4.0 on the External Web server if you are going to configure it for the Web Communication Manager. You can purchase JRun from the Macromedia Corporation. After you install JRun, you must download and install the recommended service packs from the Macromedia web site (<http://www.macromedia.com/software/jrun>). For more information, refer to the

JRun documentation.

To install JRun 4.0

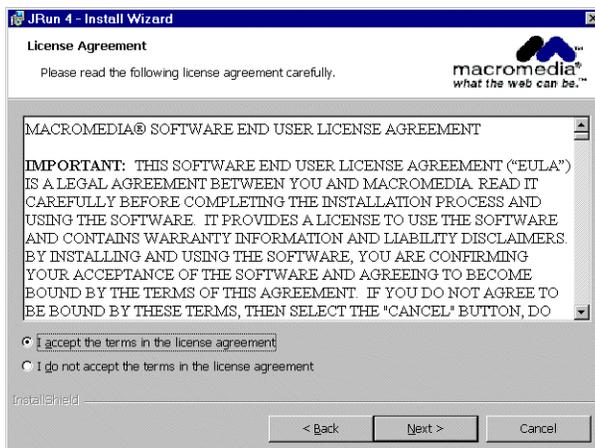
- 1 Insert the JRun 4.0 CD in the CD-ROM drive.

Result: The JRun Install Wizard starts, and then the Welcome Window appears.



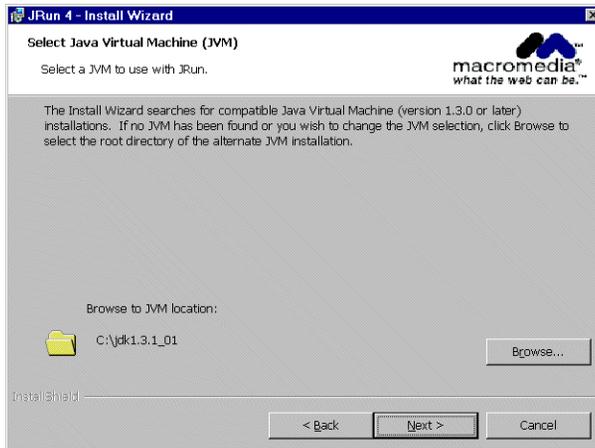
- 2 Click Next.

Result: The License Agreement window appears.



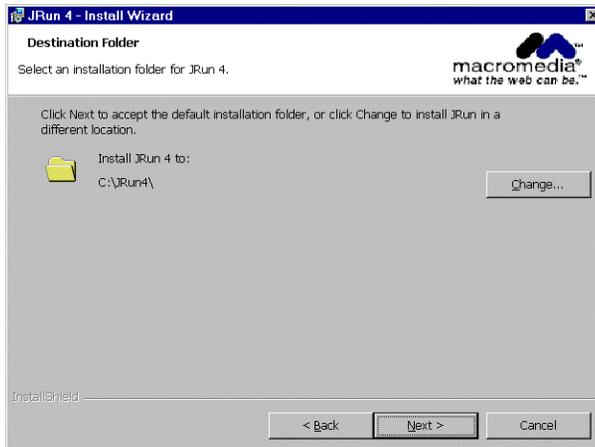
- 3 Select "I accept the terms of the license agreement," and then click Next.

Result: The Select Java Virtual Machine (JVM) window appears.



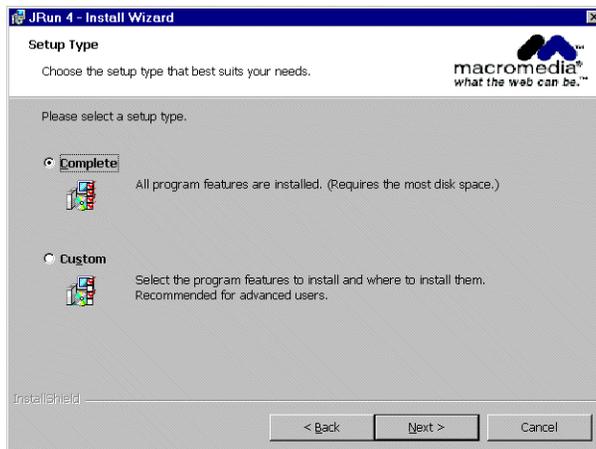
- 4 Ensure that the path of the JVM is correct, and then click Next.

Result: The Destination Folder window appears.



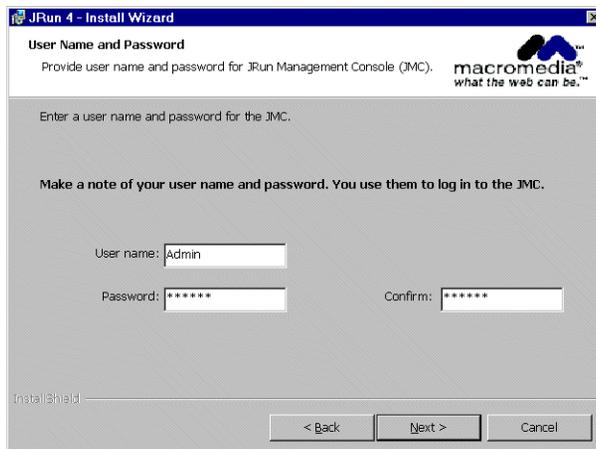
5 Click Next.

Result: The Setup Type window appears.



6 Select Complete, and then click Next.

Result: The User Name and Password window appears.

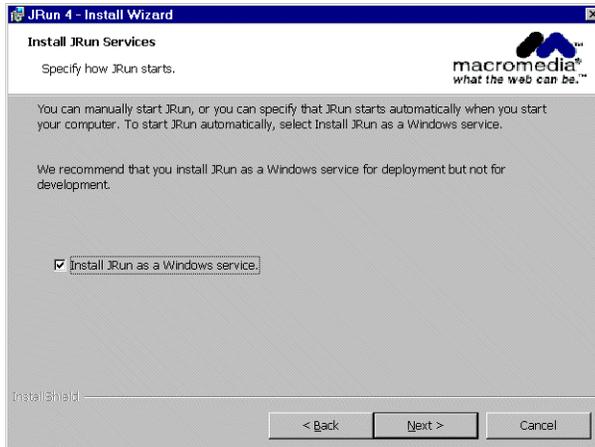


- 7 Type your user name and password, and then click Next.

ATTENTION

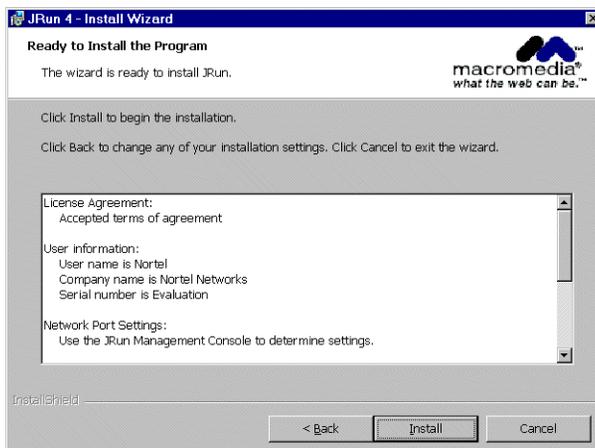
You must remember this user name and password. You will use this user name and password to access the JRun Management Console.

Result: The Install JRun Services window appears.



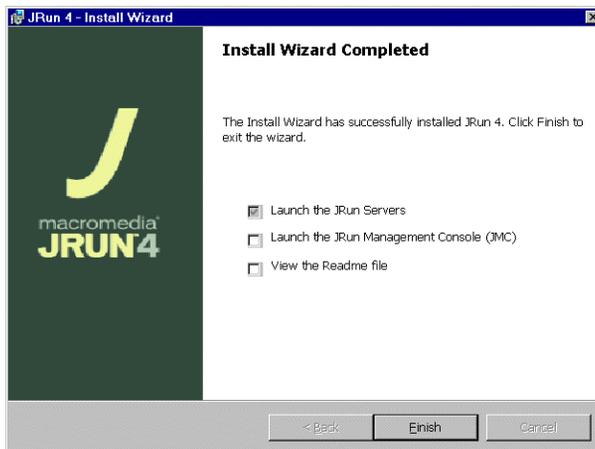
- 8 Ensure you select "Install JRun as a Windows service," and then click Next.

Result: The Ready to Install the Program window appears.



- 9 Click Install.

Result: The Install Wizard Completed window appears.

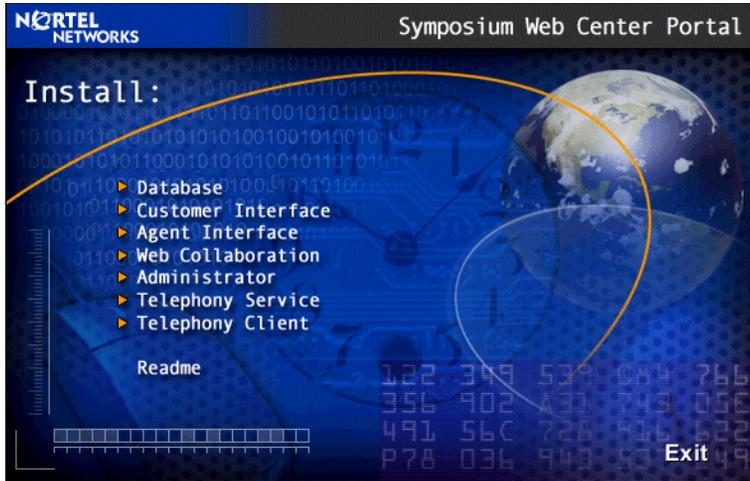


- 10 Click Finish.
- 11 Continue with the procedure that follows to install the Web Communication Manager.

To install the Web Communication Manager

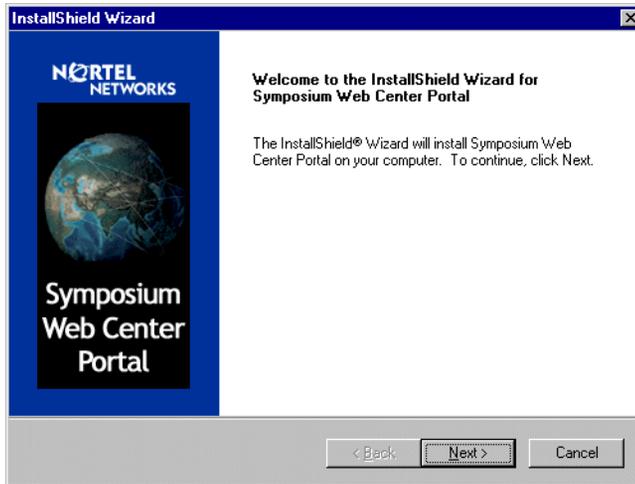
- 1 Log on to the External Web server with the Windows NT 4.0 Administrator user ID.
- 2 Insert the Nortel Networks Symposium Web Center Portal CD-ROM into the CD drive. If the installation program does not start automatically, run Setup.exe from the CD.

Result: The Symposium Web Center Portal Install window appears.



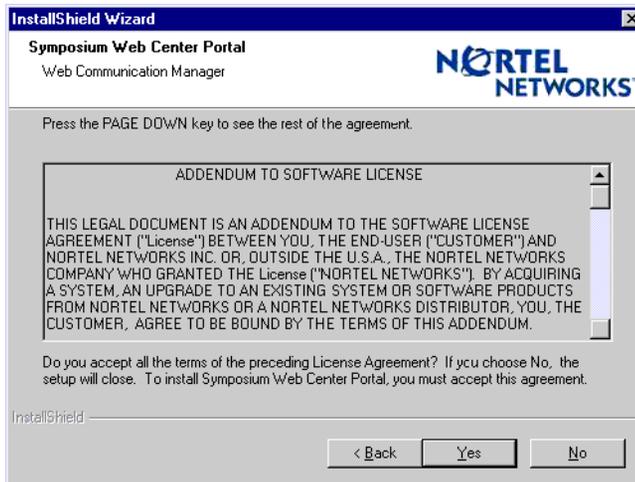
- 3 On the Symposium Web Center Portal menu, click Web Collaboration.

Result: The Welcome window appears.

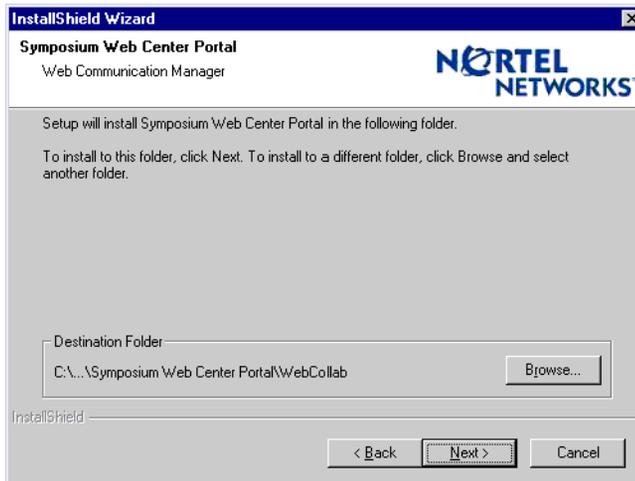


4 Click Next.

Result: The license agreement window appears.

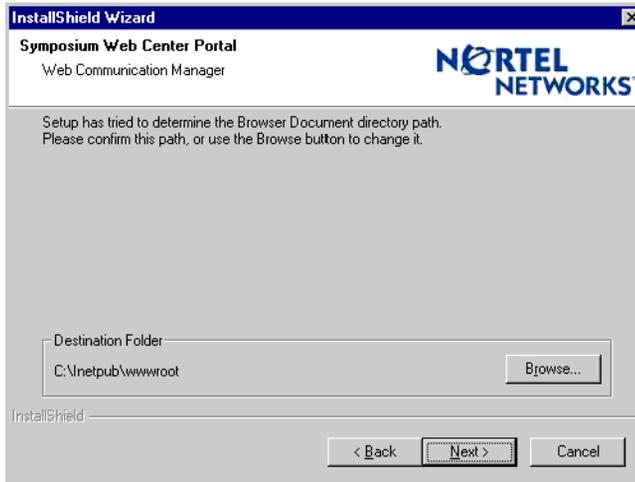
**5** Click Yes to accept the license agreement.

Result: The Symposium Web Center Portal destination folder window appears.



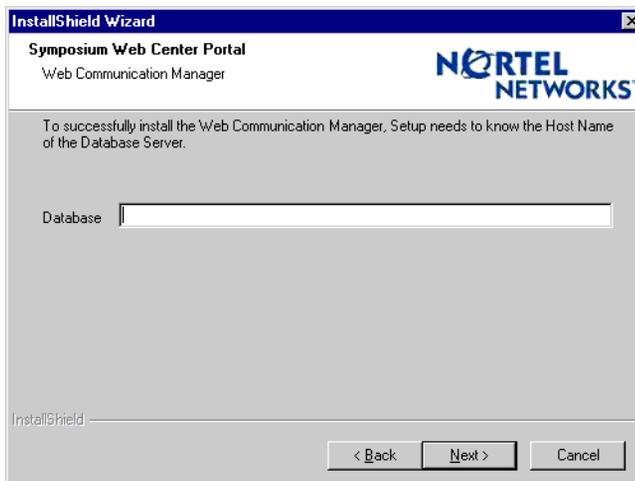
- 6 Confirm or enter the destination folder for Web Communication Manager, and then click Next.

Result: The second Symposium Web Center Portal destination folder (path confirmation) window appears.



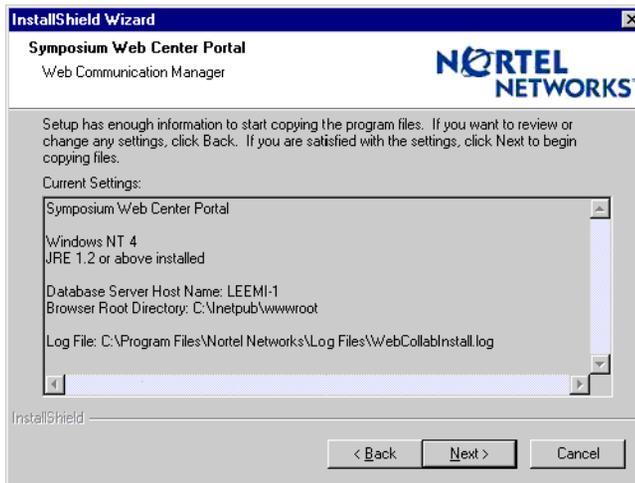
- 7 Click Next to accept the directory C:\inetpub\wwwroot, where C: is the applications drive.

Result: The Symposium Web Center Portal database host name window appears.



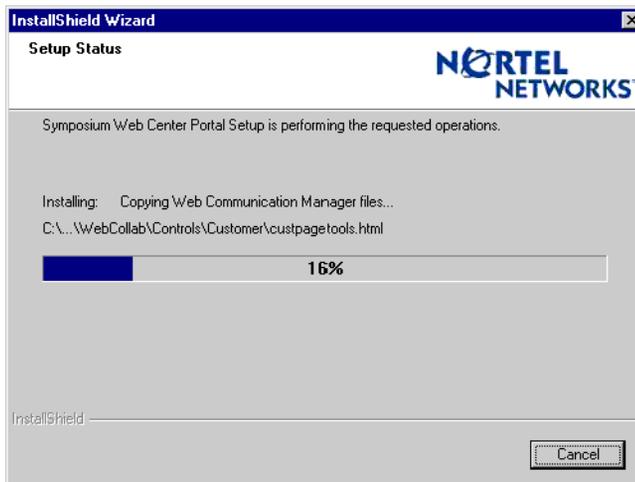
- 8 Type the host name where the Symposium Web Center Portal database is installed, and then click Next.

Result: The Symposium Web Center Portal current settings window appears.



- 9 Accept all the default settings by clicking Next or Yes.

Result: The Setup Status window appears. The installation can take several minutes to finish.



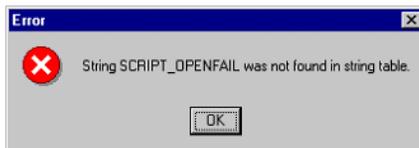
- 10 Click Finish to restart the server.

Note: Ignore the following warnings when they appear:



These warnings are a result of using a more recent version of JRun than the version that was available when the Symposium Web Center Portal CD-ROM was created.

- 11 Install all of the necessary PEPs and SUs on the External Web server. For more information, refer to "Installing software PEPs and service updates" on page 187.
- 12 Click OK to ignore the following warnings when they appear during PEP and SU installation:



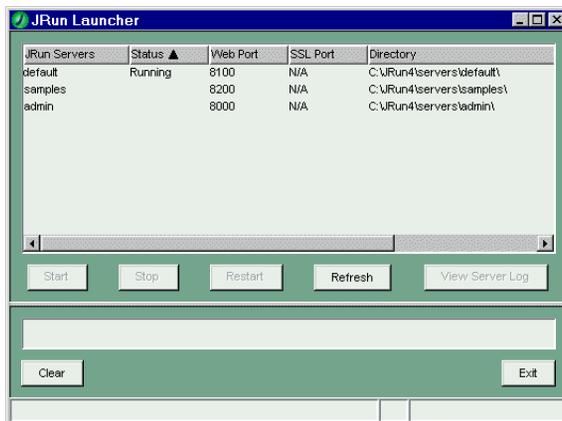
These warnings are a result of using a more recent version of JRun than the version that was available when the Symposium Web Center Portal CD-ROM was created.

To set up the services for JRun

- 1 From the Start menu, select Programs → Macromedia JRun 4.0 → Run Launcher.

Note: Ignore any DOS windows if they appear.

Result: The JRun Launcher window appears.



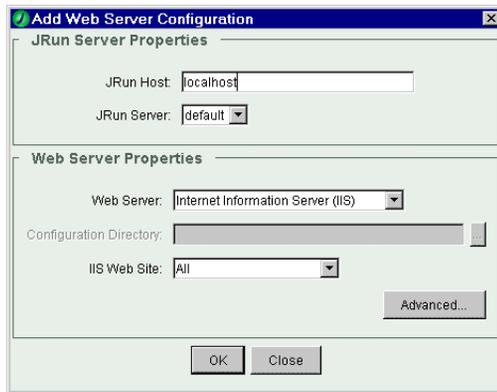
- 2 Verify the status of the servers. If a server is not started, select the server, and then click Start.
- 3 From the Start menu, choose Programs → Macromedia JRun 4.0 → Web Server Configuration Tool.

Result: The JRun Web Server Configuration window appears.



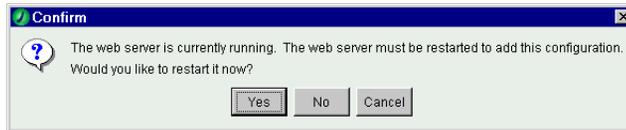
- 4 Click Add.

Result: The Add Web Server Configuration window appears.



- 5 Accept the defaults, and then click OK.

Result: The Confirm dialog box appears



- 6 Click Yes to restart the World Wide Web Service.

Result: The JRun Web Server Configuration window appears.

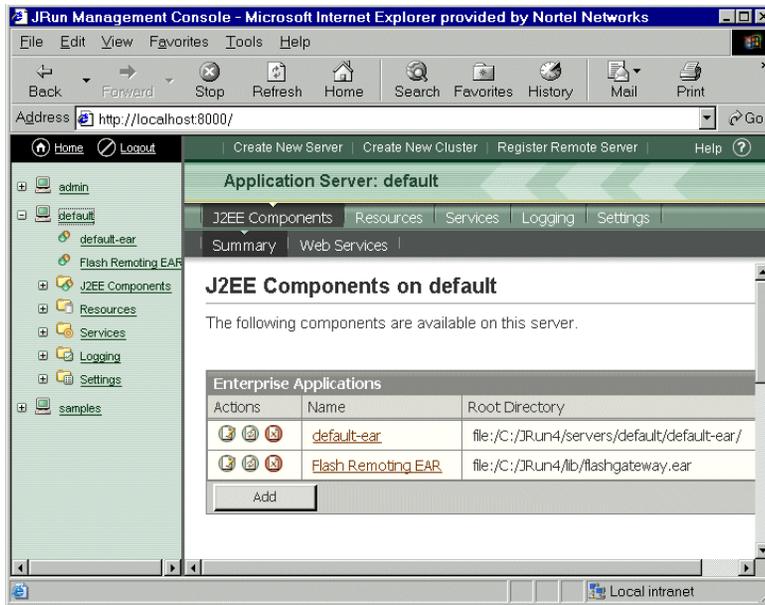


- 7 Click Exit.

To configure JRun

- 1 From the Start menu, choose Programs → Macromedia JRun 4.0 → JRun Management Console.
- 2 Use the user name and password you created in “To install JRun 4.0” on page 150 to log on to the JRun Management Console.

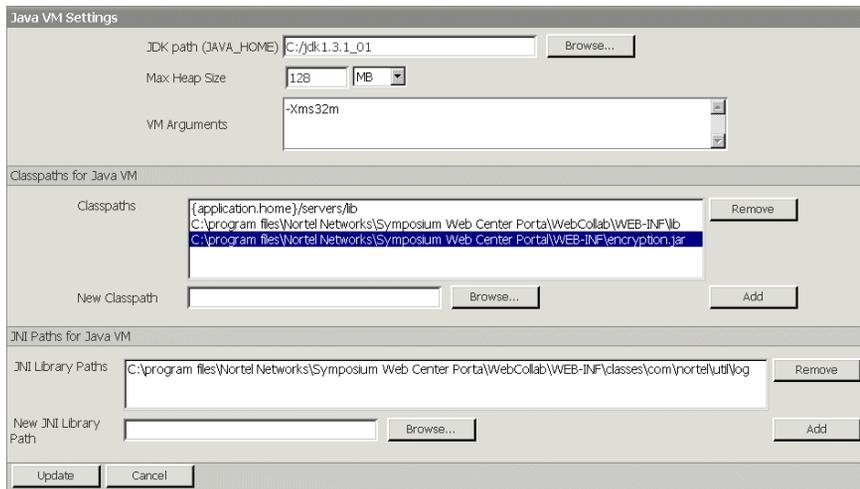
Result: The JRun Management Console window appears.



- 3 On the server list, click the plus sign (+) beside Default.

4 Click Settings.

Result: The Java VM Settings window appears.

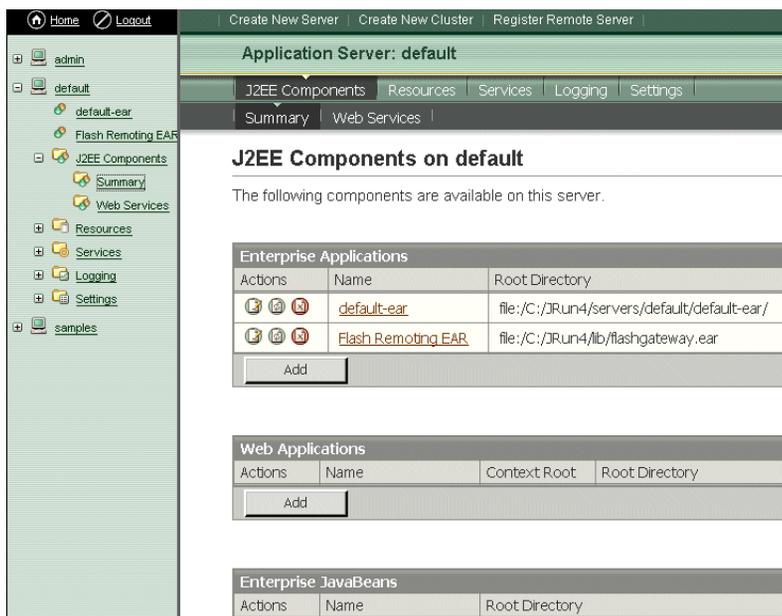


- 5 In the New Classpath box, type **C:\program files\Nortel Networks\Symposium Web Center Portal\WebCollab\WEB-INF\lib**, and then click Add.
- 6 In the New Classpath box, type **C:\program files\Nortel Networks\Symposium Web Center Portal\WebCollab\WEB-INF\classes\encryption.jar**, and then click Add.
- 7 In the New JNI Library Path box, type **C:\program files\Nortel Networks\Symposium Web Center Portal\WebCollab\WEB-INF\classes\com\nortel\util\log**, and then click Add.
- 8 Click Update to save your changes.

To deploy the Web Communication Manager with JRun 4.0

- 1 On the JRun Management Console, click Default → Summary → Web Services.

Result: The J2EE Components on default window appears.



The screenshot shows the JRun Management Console interface. The left sidebar contains a tree view with nodes for 'admin', 'default', 'default-ear', 'Flash Remoting EAR', 'J2EE Components', 'Resources', 'Services', 'Logging', 'Settings', and 'samples'. The 'J2EE Components' node is expanded, showing 'Summary' and 'Web Services'. The main content area displays the 'Application Server: default' configuration page, with tabs for 'J2EE Components', 'Resources', 'Services', 'Logging', and 'Settings'. The 'J2EE Components on default' section indicates that the following components are available on this server:

Enterprise Applications

Actions	Name	Root Directory
  	default-ear	file:/C:/JRun4/servers/default/default-ear/
  	Flash Remoting EAR	file:/C:/JRun4/lib/flashgateway.ear

Below the Enterprise Applications table is an 'Add' button. Further down, there is a section for 'Web Applications' with a table that has columns for 'Actions', 'Name', 'Context Root', and 'Root Directory', and an 'Add' button below it. At the bottom, there is a section for 'Enterprise JavaBeans' with a table that has columns for 'Actions', 'Name', and 'Root Directory'.

- 2 On the Web Applications box, click Add.

Result: The Deployment Files dialog box appears.



The screenshot shows the 'Deployment Files' dialog box. It has a 'Source File Path' field containing the text 'C:\Program Files\Nortel Networks\Symposium Web Cent'. To the right of the field is a 'Browse...' button. Below the field is a 'Deploy' button.

- 3 Browse to ..\Program Files\Nortel Networks\Symposium Web Center Portal\Web Collab, and then click Deploy.

Result: The Read-only Settings for SWCP Web Collaboration Manager window and the General Settings for SWCP Web Collaboration Manager window appears.

Read-only Settings for SWCP Web Collaboration Manager

Web Application Name
SWCP Web Collaboration Manager @

Web Application Root Directory
file:/C:/Program Files/Nortel Networks/Symposium Web Center Portal @

Description
SWCP Web Collaboration Manager @

General Settings for SWCP Web Collaboration Manager

Enable Dynamic Reload

Enable Dynamic Compile

Context Path Host

Context Path

Document Root Browse...

Enable Directory Browsing

Enable File Serving

Enable File-based Session Persistence

Enable Session Replication

New Replication Buddy Add

Session Replication Buddy List
Session fallover requires that this server and its replication buddies form a group. If serverA has buddies serverB and serverC, then serverB must have buddies serverA and serverC. ServerC must have buddies serverA and serverB.

Apply Cancel

- 4 Enter the following information:

Context Path Host: The host name of the External Web server.

Context Path: /WebCollab

Document Root: ..\Program Files\Nortel Networks\Symposium Web Center Portal\Web Collab

- 5 Ensure you select Enable File Serving and Enable File-based Session Persistence.

- 6 Click Apply to save these settings.

Note: If an error appears, ignore it.

- 7 Restart the External Web server.

To verify the deployment using JRun 4.0

- 1 From the Start menu, choose Programs → Macromedia JRun 4.0 → JRun Management Console.
- 2 Click Default.

Result: SWCP Web Collaboration Manager appears in the list.



To set up security for the Web Communication Manager using JRun 4.0

- 1 From the Start menu, choose Programs → Macromedia JRun 4.0 → JRun Management Console.
- 2 Click Resources → JDBC Data Source.

Result: The JDBC Data Sources window appears.

JDBC Data Sources

Create new JDBC data sources for the default server.



The screenshot shows a dialog box titled "Add JDBC Data Source". It has two input fields: "Data Source Name" with an empty text box, and "Database Driver" with a dropdown menu showing "Not-Listed". Below these fields is an "Add" button.

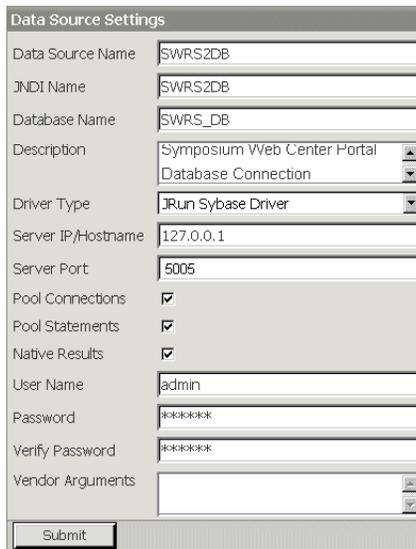


JDBC Data Sources		
Actions	Data Source Name	Database Driver

- 3 In the Data Source Name Box, type **SWRS2DB**.
- 4 In the Database Driver drop-down box, select Sybase Driver.

5 Click Add

Result: The Data Source Settings window appears.



Data Source Settings	
Data Source Name	SWRS2DB
JNDI Name	SWRS2DB
Database Name	SWRS_DB
Description	Symposium Web Center Portal Database Connection
Driver Type	JRun Sybase Driver
Server IP/Hostname	127.0.0.1
Server Port	5005
Pool Connections	<input checked="" type="checkbox"/>
Pool Statements	<input checked="" type="checkbox"/>
Native Results	<input checked="" type="checkbox"/>
User Name	admin
Password	*****
Verify Password	*****
Vendor Arguments	
<input type="button" value="Submit"/>	

6 Enter the following information:

Data Source Name: SWRS2DB

JNDI Name: SWRS2DB

Database Name: SWRS_DB

Driver Type: JRun Sybase Driver

Server IP/Hostname: The hostname or IP address of the Symposium Web Center Portal server.

Server Port: 5005

7 Ensure you check Pool Connections, Pool Statements, and Native Results.

Note: The information in the boxes in steps 8 to 10 is case-sensitive.

8 In the User Name box, type **admin**.

9 In the Password box, type **3dwpnimda**.

10 In the Verify Password box, type **3dwpnimda** again.

11 Click Submit to save your changes.

- 12 Click the Verify icon  to test the connection.

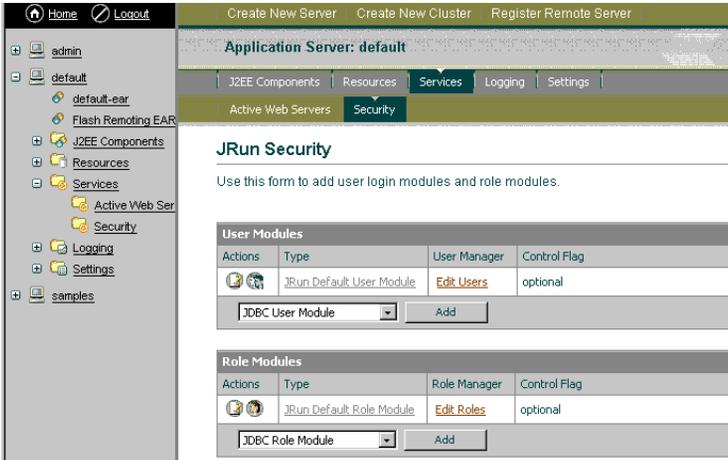
Result: A message appears, indicating the connection to the database was successful.

To set up logon credentials for the Web Communication Manager using JRun 4.0

To allow JRun 4.0 to access the database, you must add the JDBC User Module and the JDBC Role Module.

- 1 On the JRun Management Console window, click default → Services → Security.

Result: The JRun Security window appears.



The screenshot shows the JRun Security configuration page. The left sidebar shows a tree view with 'default' expanded to 'Services' and 'Security' selected. The main content area is titled 'JRun Security' and contains the following information:

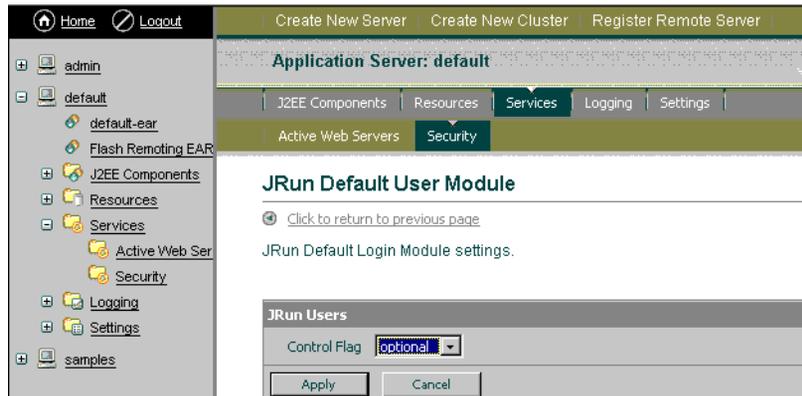
Use this form to add user login modules and role modules.

User Modules			
Actions	Type	User Manager	Control Flag
	JRun Default User Module	Edit Users	optional
	JDBC User Module	<input type="button" value="Add"/>	

Role Modules			
Actions	Type	Role Manager	Control Flag
	JRun Default Role Module	Edit Roles	optional
	JDBC Role Module	<input type="button" value="Add"/>	

- 2 Ensure the Control Flag for both the User Modules and Role Modules is set to Optional.
- a. On User Modules, double-click JRun Default User Module.

Result: The following window appears.



- b. From the Control Flag drop-down box, choose “optional.”
- c. Click Apply.
Result: You return to the JRun Security window.
- d. On Role Modules, double-click JRun Default Role Module.
Result: The following window appears.



- e. From the Control Flag drop-down box, choose “optional.”
- f. Click Apply.

- 3 On the User Modules dialog box, click Add.

Result: The JDBC Users window appears.

JDBC Users

Control Flag: optional

Class Name: jrun.security.JDBCLoginModule

Database JNDI Name: SWRS2DB

Use Details

Table Name: user_details

Username Column: user_logon_id

Password Column: user_pass

Use Query

Query String: [Empty text area]

Apply Cancel

- 4 Enter the following information:
Control Flag: optional
Database JNDI Name: SWRS2DB
- 5 Select Use Details, and then enter the following information:
Table Name: user_details
Username Column: user_logon_id
Password Column: user_pass
- 6 Click Apply to save your changes.

- 7 On the Role Modules dialog box, click Add.

Result: The JDBC Roles window appears.

JDBC Role Module

[Click to return to previous page](#)

JDBC Role Module settings.

The screenshot shows the 'JDBC Roles' dialog box. It has a title bar 'JDBC Roles'. Below the title bar, there are several fields and sections:

- Control Flag:** A dropdown menu set to 'optional'.
- Class Name:** A text box containing 'run.security.JDBCLoginModule' with a help icon to its right.
- Database JNDI Name:** A text box containing 'SWRS2DB'.
- Use Details:** A section with a radio button selected. It contains three text boxes:
 - Table Name:** 'user_details'
 - Username Column:** 'user_logon_id'
 - Role Column:** 'user_class'
- Use Query:** A radio button that is unselected. To its right is a text box labeled 'Query String' which is empty.
- Buttons:** 'Apply' and 'Cancel' buttons at the bottom.

- 8 Enter the following information:
 - Control Flag:** optional
 - Database JNDI Name:** SWRS2DB
- 9 Select Use Details, and then enter the following information:
 - Table Name:** user_details
 - Username Column:** user_logon_id
 - Role Column:** user_class
- 10 Click Apply to save your changes.

To configure IIS for the Web Communication Manager

Follow the procedures in this section to configure Internet Information Server (IIS) for the Web Communication Manager component on the External Web server.

- 1 From the Windows Start menu, choose Programs → Windows NT 4.0 Option Pack → Microsoft Internet Information Server → Internet Service Manager.
- 2 Click the plus sign (+) beside Internet Information Server.
- 3 Click the plus sign (+) beside the host name of the server on which you installed the Web Communication Manager.
- 4 Right-click Default web site.
- 5 Click New.
- 6 Click Virtual Directory.
- 7 In the “Alias to be used to access virtual directory” box, type **SWCP-WCM**, and then click Next.
- 8 Browse to C:\Program Files\Nortel Networks\Symposium Web Center Portal\WebCollab\Admin\ClickStream\Public, and then click Next.
- 9 Select Allow Read Access, Allow Script Access, and Allow Execute Access (includes Script Access), and then click Finish.



- 10 Save the settings.

Result: The virtual folder is created.

Configuring IIS for Click Stream Tracking

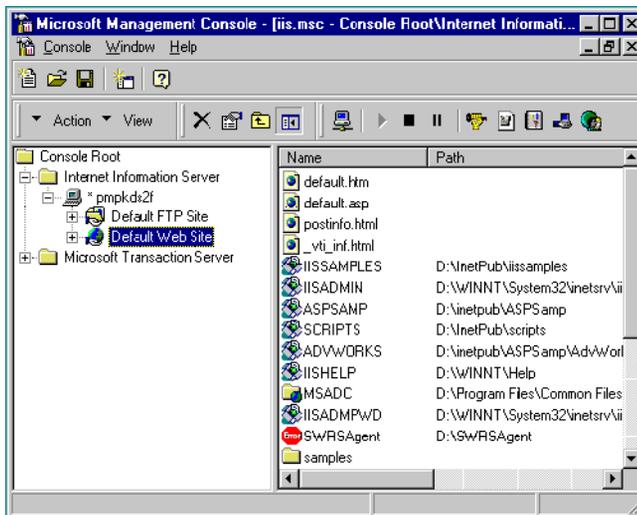
Introduction

Follow the procedures in this section to configure Internet Information Server for the Click Stream Tracking component. You must have the Web Communication Manager installed before you configure Click Stream Tracking. You must configure IIS for Click Stream Tracking on the External Web server.

To configure IIS for Click Stream Tracking

- 1 Log on to the External Web server using the Windows NT 4.0 Administrator user ID.
- 2 On the Windows Start menu, choose Programs → Windows NT 4.0 Option Pack → Microsoft Internet Information Server → Internet Service Manager.

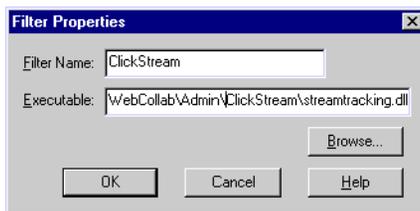
Result: The Internet Information Service window appears.



- 3 Click the plus sign (+) beside Internet Information Server.
- 4 Click the plus sign (+) beside the host name of the server on which you installed the Web Communication Manager.
- 5 Right-click Default web site, and then select Properties.

- 6 Click the ISAPI Filter tab.
- 7 If the ISAPI Filters are set up and the Status is Red, then you need to remove the ISAPI Filters.
 - a. Highlight the ISAPI Filter, and then click Remove.
 - b. Restart IIS.
 - c. Start the procedure again from step 1.
- 8 Click Add.

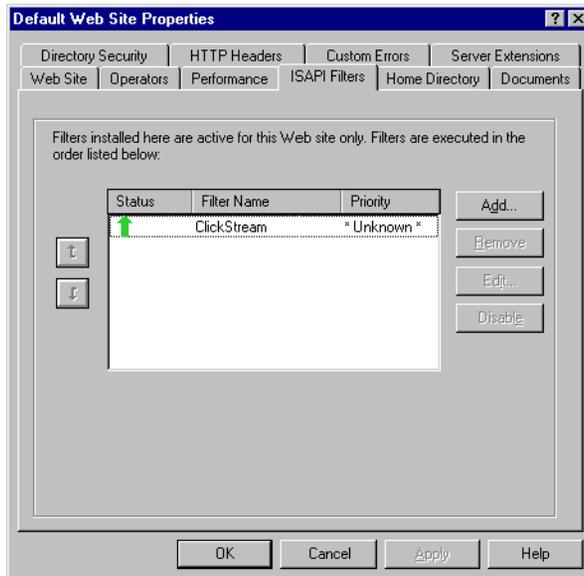
Result: The Filter Properties window appears.



- 9 In the Filter Name box, type **ClickStream**.
- 10 Browse to C:\Program Files\Nortel Networks\ Symposium Web Center Portal\WebCollab\Admin\ClickStream\Public\StreamTracking.dll, where C: is the applications drive.

Note: If you are not able to find StreamTracking.dll, ensure that the .dll files are not hidden. You must exit IIS, and then log on to the console again.
- 11 Click Open.
- 12 Click OK.
- 13 Click Apply.

- 14 Ensure that the Status of the Click Stream filter in the Default Web Site Properties window shows a green arrow. If it does not, restart the server and repeat steps 3 to 10.



- 15 Close the Internet Information Service window, and then save the changes to the Console.

To verify the connection between the External Web server and the Symposium Web Center Portal server

- 1 In a web browser window, type **http://<hostname>/WebCollab/Debug/index.jsp**, where *hostname* is the name of the External Web server.
Note: The URL for the external Web server is case-sensitive.
- 2 Log on to Web Communication Manager Administration as follows:
 - User: **SysAdmin**
 - Password: **Nortel****Note:** The user name and password are case-sensitive.
- 3 Click Initialization status.

- 4 A message stating that the Web Communication Manager started, and information about the Symposium Web Center Portal server appear in the browser window.

Configuring the Transaction Monitor

Introduction

This section provides information about configuring the Transaction Monitor. The Transaction Monitor operates as a Windows NT service. It scans the Symposium Web Center Portal database at regular intervals for transaction in an invalid state. It updates these transactions so they can be processed by an agent.

Transaction Monitor parameters

The Transaction Monitor configuration utility can be used to change the Transaction Monitor control parameters. Nortel Networks recommends that these parameters remain at the default values.

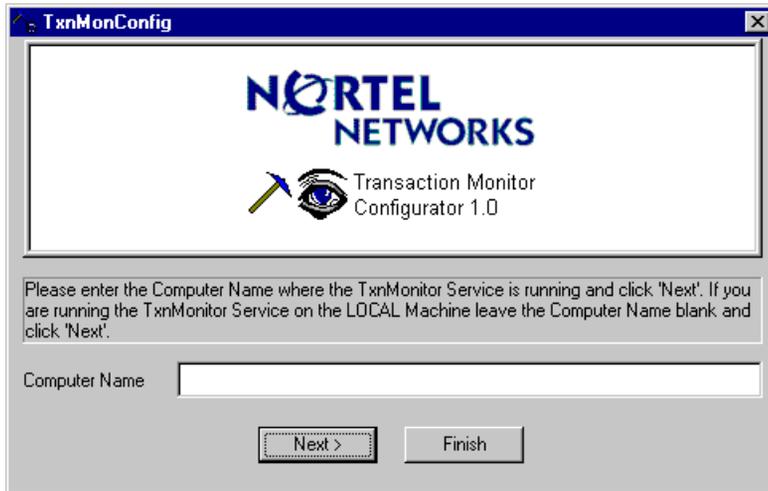
The following parameters control the operation of the Transaction Monitor:

- **Polling Interval** – The time in minutes between Transaction Monitor updates.
- **Acquired Duration** – The time in minutes that a transaction is allowed to remain in the Acquired or Presented state.
- **Open Duration** – The time in minutes that a transaction is allowed to remain in the Open state.
- **Acquired Update Status Code** – Defines the state that a transaction is updated to if it exceeds the Acquired or Open duration times.

To configure the Transaction Monitor

- 1 From the Start menu, on the Symposium Web Center Portal server, choose Programs → Nortel Networks-Symposium Web Center Portal → Services → TxnMonitor Config.

Result: The TxnMonConfig window appears.



Nortel Networks recommends that you run the Configurator on the same computer as the Symposium Web Center Portal database.

- 2 Leave the Computer Name box blank, and then click Next.

Result: The following window appears:

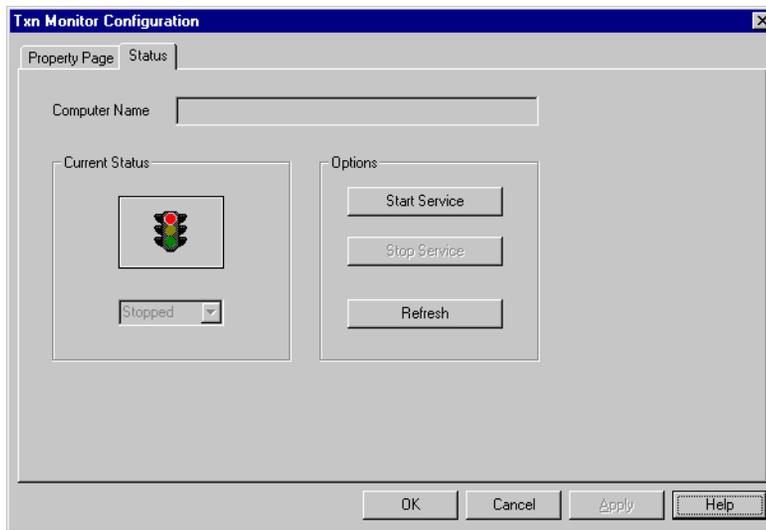
The screenshot shows the 'Txn Monitor Configuration' dialog box. It features a title bar with the text 'Txn Monitor Configuration' and a close button. Below the title bar are two tabs: 'Property Page' (which is selected) and 'Status'. The main area of the dialog is divided into sections. At the top is a 'Computer Name' text input field. Below that is a 'Configuration Parameters' section, which contains an 'ODBC DSN Parameters' sub-section. This sub-section has three text input fields: 'DSN' with the value 'SwRS2DB', 'UID' with the value 'admin', and 'PWD' with a masked password '*****'. Below the ODBC parameters are three more text input fields: 'Polling Interval' with the value '10' and '(minutes)' below it, 'Acquired Duration' with the value '60' and '(minutes)' below it, and 'Open Duration' with the value '60' and '(minutes)' below it. There is also a checked checkbox labeled 'Log No Update Activity' and a dropdown menu for 'Acquired Update Status Code' with 'New' selected. At the bottom of the dialog are four buttons: 'OK', 'Cancel', 'Apply', and 'Help'.

- 3 Leave the Computer Name blank. The ODBC DSN Parameters are the same connection parameters as other ODBC items. The Userid (UID) and Password (PWD) boxes are filled with default values upon installation and should not be changed.

Note: Nortel Networks recommends that you keep the defaults for the Polling Interval, Acquired Duration, and Open Duration. If you do make any changes to these values, you must restart the DTH and the TxnMonitor.

- 4 Click the Status tab.

Result: The following window appears:



- 5 Use this tab to monitor and manage the TxnMonitor service. You can start and stop the service from this window.

The traffic light indicates status as

- Green: system running
- Red: system stopped
- Yellow: system in transition

Error reporting

When changing from the Property Page tab to the Status tab, the Polling Interval, Acquired Duration, and Open Duration are checked for validity. Currently, they all have the same time ranges (60 to 1440 minutes [24 hours]). Out-of-range error messages appear as pop-up windows on the Configuration window.

Installing the Dashboard Utility

Introduction

Nortel Networks recommends that you install the Dashboard Utility on the Symposium Web Center Portal server after the you install the Administrator and Telephony Service components. You can also install it on a remote computer; however, extra configuration is required if you do so.

Note: The Dashboard Utility does not come as part of the server installation. It is provided as an option during an upgrade to SU05 or later.

Configuring a remote PC to run the Dashboard Utility

If you install the Dashboard Utility on a remote PC, it requires access to the registry, event logs, and other items on the Symposium Web Center Portal server. The account under which the Dashboard runs must be a member of the Administrator group on the Symposium Web Center Portal server to give the Dashboard the required Local Administrator privileges on the server. If the remote computer does not reside in the same domain as the database server, a trust relationship must be established between the two domains. For more information about trust relationships, refer to the Windows NT User Manager Help.

To allow the time on the Symposium Web Center Portal server and the External Web server to synchronize when you are running the Dashboard on a server other than the Symposium Web Center Portal server, you must enable a guest account on the External Web server. This step is optional.

Note: Contact your network administrator before you enable a guest account.

Before you begin

The PC must have a Windows NT 4.0 operating system with the following components installed:

- Sybase Open Client
- MDAC

- TAPI Client software. This software must be installed on the remote PC to monitor the DTH telephone lines. It must be configured to point to the same TAPI server that the database utilizes.

Note: You must install the Administrator on the Symposium Web Center Portal server in this scenario.

To enable a guest account

- 1 From the Windows Start menu, choose Programs → Administrative Tools (Common) → User Manager.
- 2 Double-click Guest account.
- 3 Ensure that the Account Disabled box is unchecked.

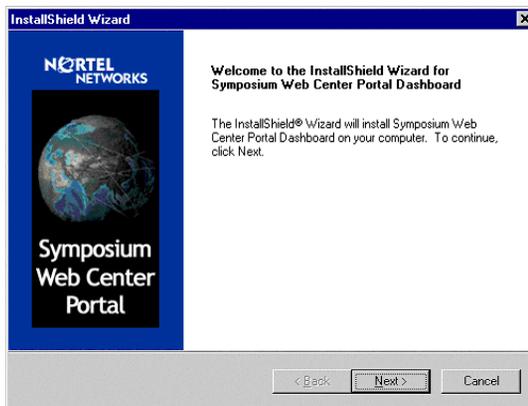
To install the Dashboard Utility

You have the option to install the Dashboard Utility when you install SU05 (or later). If you did not install the Dashboard Utility with this SU, you can follow the procedure below to install it.

- 1 Log on to the server with Administrator privileges.
- 2 Insert the Symposium Web Center Portal SU05 (or later) CD-ROM in the CD-ROM drive.
- 3 On the CD-ROM, navigate to the Dashboard folder on the Symposium Web Center Portal CD-ROM.

- 4 Double-click the Setup icon and follow the InstallShield instructions.

Result: The InstallShield Wizard window appears.

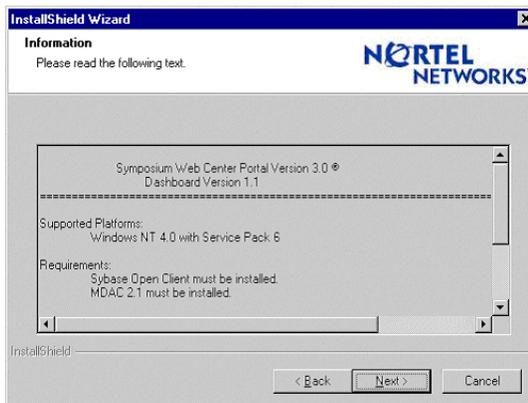


- 5 Click Next.

Result: The License agreement window appears.

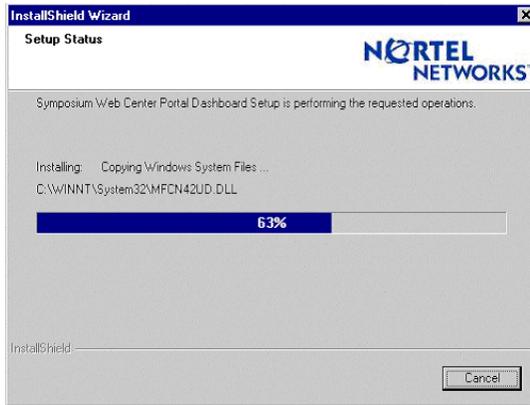
- 6 Read and accept the license agreement.

Result: The Information window appears.



- 7 Read the installation notes to ensure that all the system requirements are met, and then click Next.

Result: The Dashboard software is then installed with the required registry entries and shortcuts being created.



- 8 When the InstallShield Wizard Complete window appears, select Yes, I want to restart my computer now, and then click Finish.

Symposium Web Center Portal server settings

Introduction

This section provides procedures to optimize the performance of the Symposium Web Center Portal server.

To set the system properties

- 1 Log on to the Symposium Web Center Portal server with Windows NT Administrator user ID.
- 2 On the Control Panel, click System.
- 3 Click the Performance tab.
- 4 Set Boost to None.

To set the connection pooling attributes

- 1 Log on to the Symposium Web Center Portal server with Windows NT Administrator user ID.
- 2 On the Control Panel, click ODBC Data Source Administrator.
- 3 Click the Connection Pooling tab.
- 4 Double-click Sybase System 11 install.
- 5 Select Pool Connection to this driver.
- 6 Keep the default value for the time that the unused connections can remain in the pool. The default is 60 seconds.
- 7 Click OK.
- 8 Click Apply.
- 9 Click OK.

Installing software PEPs and service updates

Introduction

Symposium Web Center Portal automatically removes all Performance Enhancement Packages (PEPs) when you uninstall a single component on the server. If you uninstall one or more components after you installed the PEPs, or if you are adding one or more components after you installed the PEPs, then you must ensure that all the PEPs are uninstalled, and then reapply the PEPs.

This section explains how to install and uninstall a Performance Enhancement Package for Symposium Web Center Portal. For more information about PEPs, refer to <https://www43.nortelnetworks.com/MPL> if you are located in North America, or <https://www21.nortelnetworks.com/MPL> if you are located in Europe. To register for these sites, refer to <http://www.nortelnetworks.com/register>.

Using the PEP viewer

Use the PEP Viewer to view a listing of all the PEPs installed on the computer. View the readme.txt files associated with each PEP to uninstall PEPs.

To uninstall PEPs

- 1 Log on to the server with the Windows NT Administrator user ID.
- 2 Check the readme file in the PEP directory for installation instructions and the PEP/SU dependency information before you install the PEP.
- 3 Shut down all the appropriate Symposium Web Center Portal components as stated in the readme.txt file.
- 4 From the Start menu, choose Programs → Nortel Networks - Symposium Web Center Portal → PEP Viewer.
Result: The Symposium Web Center Portal - PEP Viewer window appears.
- 5 Select the PEP.
- 6 Click Uninstall.
- 7 When you are prompted to uninstall the PEP, click Yes.

- 8 When you are prompted to restart the computer, click Yes.

Notes:

- You must uninstall PEPs in the reverse order in which they were installed.
- You must uninstall PEPs through the PEP Viewer. PEPs do not appear under Add/Remove Programs.
- You can install and uninstall Service Updates (SU) in the same manner as you install and uninstall PEPs.

To install PEPs or Service Update packs on the server or client PC

Before you can retrieve a PEP or Service Update from the web site, you must have a SAM ID and a valid password.

- 1 Log on with Administrative privileges.
- 2 Shut down all applications, including screen savers.
- 3 Browse to the web site on which the PEP is located (<https://www43.nortelnetworks.com/MPL> or <https://www21.nortelnetworks.com/MPL>).
- 4 Download the necessary PEPs.
- 5 Unzip the PEPs.
- 6 Check the readme file in the PEP directory for installation instructions and the PEP/SU dependency information before you install the PEP.
- 7 Shut down all the appropriate Symposium Web Center Portal components as stated in the readme.txt file.
- 8 Double-click the setup.exe file, and then follow the instructions as they appear on the window.

Result: The PEP Installer Wizard verifies that the PEP can be installed successfully. The PEP Installer then shuts down and restarts the server. This process may take several minutes. The PEP is installed and all updated files are backed up.

Note: If the PEP Installer detects that the PEP cannot be installed successfully, refer to the readme.txt file, and then contact your Nortel Networks customer support representative for assistance if necessary.

- 9 Restart the computer.

Installation checkpoint

Introduction

Use the following procedures to verify that the agent and administration interfaces were set up successfully. Ensure you have installed all of the necessary PEPs before you perform the procedures below.

To view the FLEXIm service

- 1 From the Windows Start menu, choose Programs → Nortel → Security → FLEXIm Control Panel.

- 2 On the Control tab, verify that the status of the service is
<host name> license server UP (MASTER).

The host name should match the host name entered during the installation.

- 3 To find the host name entered during the installation, if necessary, use a text editor to read the file: ..\Winnt\System32\Ntsalic.dat.

Creating a new agent

To log on to the Administration interface

- 1 From the Windows Start menu, choose Programs → Nortel Networks - Symposium Web Center Portal → Administrator → Administrator.

- 2 Enter your user ID and password. The default user ID is **SysAdmin**, and the default password is **Nortel**.

- 3 On the Access Class list, select the access class that matches your user ID.

To create a new agent

- 1 Click the plus sign (+) next to Symposium Web Center Portal.

- 2 Click the plus sign (+) next to User/Customer Administration.

- 3 Double-click Users.

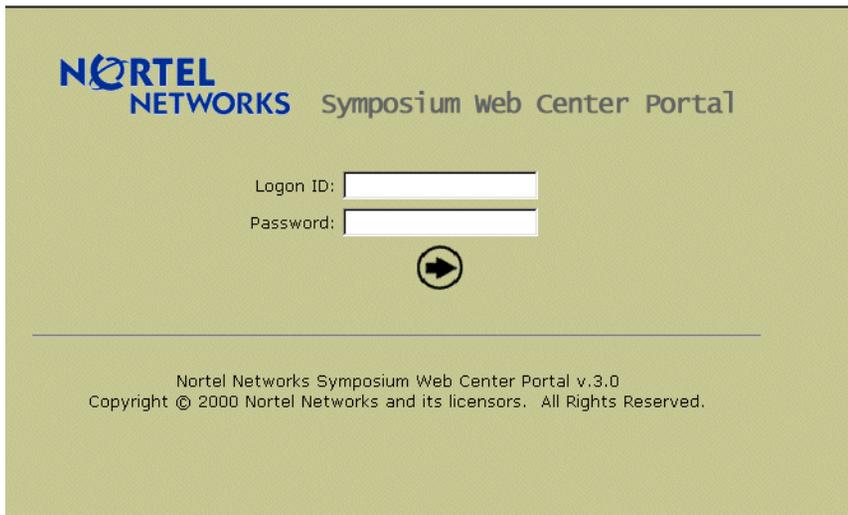
- 4 Click New.

- 5 Enter the new agent's identification and contact details.
- 6 Click the Skillset tab.
- 7 Select the skillset to which the agent belongs, and click the arrow to move the skillset to the Selected Skills box.
- 8 Click the Display tab.
- 9 Select the skillset(s) that you want to appear on the agent's real-time display, and then click the arrow to move the skillset to the Displayed Skills box.
- 10 Click OK.

To log a new agent on to the server

In the browser window, type **http://<host name>/agent**. The *host name* is the name of the computer on which the Agent Interface is installed.

Result: The Agent Logon window appears.



Note: If you get a message stating that you need to install the Java Virtual Machine, do so now.

Shutting down the Symposium Web Center Portal server

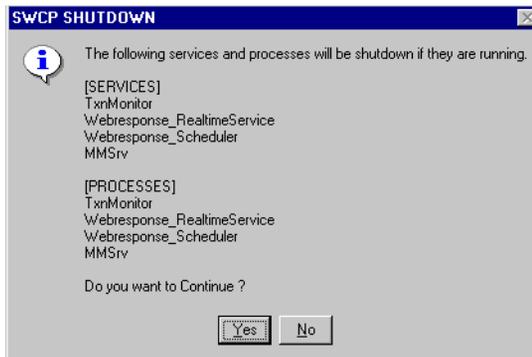
Introduction

The following procedure is the recommended method to shut down the Symposium Web Center Portal server application. Use this procedure when you want to restart or shut down the server for any reason. If you do not use the method provided to shut down Symposium Web Center Portal, Windows error messages may appear.

To shut down the Symposium Web Center Portal server

- 1 On the desktop, click the Shutdown SWCP icon.

Result: The SWCP SHUTDOWN dialog box appears.



- 2 Click Yes.

Result: The Symposium Web Center Portal services and processes stop. Now you can shut down the server.

Chapter 4

Installing and configuring agent PCs

In this chapter

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Configuring agent PCs as TAPI clients	195
Installing Symposium Web Center Portal Telephony Client on agent PCs	197
Configuring the Agent Roaming feature on Agents' PCs	200

Overview

Introduction

Follow the procedures in this section to install and configure Symposium Web Center Portal on the agent PCs.

Before you can use the Agent Workbook, make sure the agent PCs meet the requirements found in “System requirements” on page 30. Ensure you have the following software on each of the agents’ PCs:

- Microsoft Data Access Components (MDAC)
- JRE (J2SE)

ATTENTION You must install a Java Runtime Environment (JRE) on the Agent Interface Server, Agent PCs, and on the optional External Web server. JRE 1.2.2_006 is distributed on the Symposium Web Center Portal CD-ROM. You can download later versions from the Sun web site (<http://java.sun.com/downloads>). JRE is now referred to as Java 2 Standard Edition (J2SE) on the Sun web site. You can use JRE 1.2.2_006 provided on the Nortel Networks Symposium Web Center Portal CD-ROM except in the following instances:

- If you are using a Pentium IV on the Agent Interface server or on the Agent PCs, you must install JRE (J2SE) version 1.2.2_012 or later of the 1.2.2 JRE (J2SE) stream.
 - If you plan to install JRun 4.0, you must install JRE (J2SE) version 1.3.x (or later) to allow JRun to function properly on the External Web server.
- Microsoft TAPI 2.1 (if required)
 - Symposium Web Center Portal Telephony Client (if your skillsets are operating in push mode)

Configuring agent PCs as TAPI clients

Introduction

The TAPI Service Provider allows the TAPI client on the agent PCs to communicate with the TAPI server. This section explains how to run the TCMSetup program to configure agent PCs as TAPI clients.

For detailed instructions on configuring agent PCs for telephony, refer to the TAPI Service Provider documentation.

Before you begin

Ensure that agent PCs that run Windows 95 have the TAPI Client 2.1 installed. (Agent PCs running Windows 98 or Windows NT 4.0 Workstation with Service Pack 5 [or later] have the TAPI Client software installed by default.)

Note: You must set up a telephone line for each agent on the switch, and then add it to the TAPI server database.

To run the TAPI service provider setup on the agent PCs

- 1 Log on to the agent PC with domain administrator privileges.
- 2 On the Windows Start menu, click Run.
- 3 In the Open box, type **TCMSetup /c *SERVERNAME***, where *SERVERNAME* is the name of the server where the TAPI Service Provider is installed.

Result: If the TAPI service provider setup was successful, you see the following message:



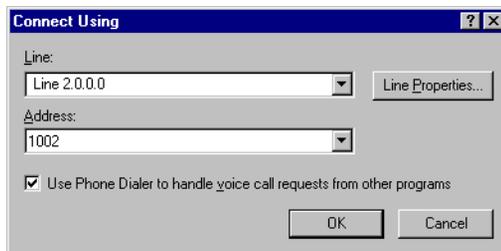
- 4 Verify the TAPI line with the phone dialer accessory on the PC. To do so, choose Programs → Accessories → Phone Dialer.

Result: The Phone Dialer window appears.



- 5 Choose Tools → Connect Using.

Result: The Connect Using window appears.



Note: If phone lines appear in the drop-down list box under Line, then TAPI is configured.

- 6 If no lines appear in the Line drop-down list box, check your TAPI configuration.
- 7 Select the line that you use to make calls.
- 8 Make a call.

Installing Symposium Web Center Portal Telephony Client on agent PCs

Introduction

The Symposium Web Center Portal Telephony Client is an interface between the TAPI Client software and the Agent Interface. Install the Telephony Client on each agent PC if the agents are assigned to skillsets that will operate in push mode.

Install Telephony Client on a PC running Windows 95, Windows 98, Windows NT Workstation 4.0 with Service Pack 5 (or later), Windows 2000 Professional, or Windows XP Professional.

Note: If you are using Windows 95 or Windows 98, you must log on with a valid user ID and password. If you are using Windows NT Workstation or Windows 2000 Professional, you must log on as the Administrator to install this component.

You must also install JRE (J2SE) on each of the agent PCs.

Note: You can install the Symposium Web Center Portal Telephony Client on agent PCs, on which you have already installed a Symposium Agent Release 2.3 client (or higher). The Telephony Client can run simultaneously with Symposium Agent Release 2.3 client (or higher). For more information, refer to the *Symposium Agent Release 2.3 Installation and Operations Addendum* on the customer care web site (www.nortelnetworks.com).

To install JRE (J2SE) on agent PCs without Internet access

- 1 Log on to the Agent Interface server with the Windows NT 4.0 Administrator user ID. You can also go to the JRE (J2SE) web site (<http://java.sun.com/products/jdk/1.2/jre/>) to download and install JRE (J2SE) on each agent PC.
- 2 On the Symposium Web Center Portal CD-ROM, browse to the Jre directory, and then double-click `jre-1_2_2_006-win-i.exe`.
- 3 Read the License Agreement, and then click Yes.

- 4 Follow the instructions as they appear on the screen and accept all the defaults.

Installing Microsoft TAPI 2.1

For Windows 95 platforms, you must install the Microsoft TAPI Client 2.1 software to use the telephony functions, such as the pop-up dialog box and softphone. You can find the TAPI client software at <ftp://ftp.microsoft.com/developr/TAPI/TAPI2195.zip>.

Do not install TAPI Client 2.1 on Windows NT or Windows 98. The TAPI software is installed by default on Windows NT with Service Pack 5 installed.

To install the Symposium Web Center Portal Telephony Client

- 1 Log on to the PC with the Administrator user ID.
- 2 Insert the Nortel Networks Symposium Web Center Portal CD-ROM into the CD drive. If the installation program does not start automatically, run Setup.exe from the CD.

Result: The Symposium Web Center Portal Install window appears.



- 3 Click Telephony Client.

Result: The Welcome window appears.

- 4 Click Next.

5 Read the License Agreement, and then click Yes.

Result: The Information screen appears.

6 Read the special requirements, and then click Next.

7 Confirm the destination folder, and then click Next.

Result: The Symposium Web Center Portal Telephony Client window appears.

8 Enter or confirm the host name of the Symposium Web Center Portal Agent Interface server.

9 Click Next.

Result: The Start Copying screen appears.

10 Click Next.

11 When the Setup Complete screen appears, click Finish.

12 Restart the PC, and then log on again with the Administrator user ID.

Configuring the Agent Roaming feature on Agents' PCs

Introduction

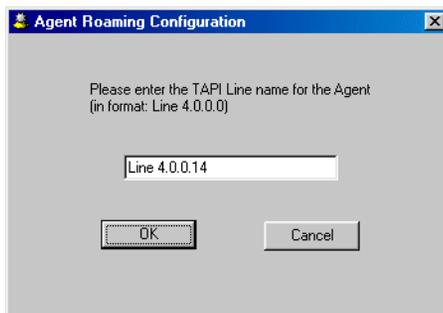
The Agent Roaming Feature selects the Telephone line that the SWCP Telephony Client will monitor for incoming transactions (if using push mode). Only one line may be monitored at any one time by an Agent.

To configure Agent Roaming

On Windows 2000 Professional and Windows XP Professional, you must be logged on to the Agent's PC with Administrative privileges before configuring the Agent Roaming Feature. On Windows NT Workstation, Windows 98, or Windows 95, you can configure Agent Roaming as a user.

- 1 From the Start menu on the agent PC, choose Programs → Nortel Networks → Symposium Web Center Portal → Telephony Client → Agent Roaming Configuration.

Result: The Agent Roaming Configuration window appears.



- 2 Type the line that the agent will monitor using the loop, shelf, card, unit format. For example, Line 4.0.0.14.
- 3 Click OK.

Note: The line you type in this window is a local computer setting. It associates the agent's PC with their phoneset. When an agent logs on, it monitors the phoneset associated with that PC.

Assigning an agent multiple TAPI lines

You can assign an agent multiple TAPI lines using TCMapp on the TAPI server. If you want to allow an agent to log on to multiple PCs, then you must assign the agent the line that is associated with each PC. The line associated with each PC is the line configured using the Agent Roaming Feature on that PC.

Example

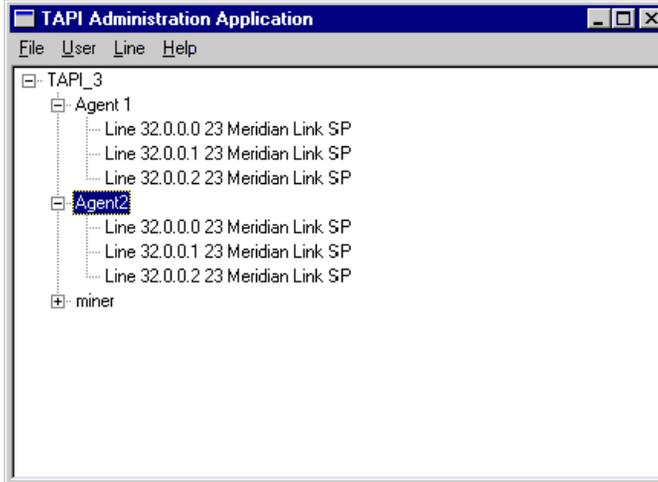
In this scenario, Agent 1 and Agent 2 are allowed to log on to three PCs. The Agent Roaming Feature on each PC is configured as follows:

PC1 is associated with Line 32.0.0.0.

PC2 is associated with Line 32.0.0.1.

PC3 is associated with Line 32.0.0.2.

You must assign both Agent 1 and Agent 2 to Line 32.0.0.0, Line 32.0.0.1, and Line 32.0.0.2 using TCMapp on the TAPI server.



Chapter 5

Managing skillsets and users

In this chapter

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Logging on to Symposium Web Center Portal Administrator	207
Managing skillsets	210
Handling unassigned skillsets	216
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Overview

Introduction

Follow the procedures in this section to log on to Symposium Web Center Portal, and to create and delete users and skillsets.

How Symposium Web Center Portal is licensed

Your license agreement authorizes the maximum number of logons without regard to the total number of workstations at your site.

For example, if you have 30 workstations at your site and have paid for 20 licenses, any of the 30 agent workstations can access Symposium Web Center Portal as long as no more than 20 agents log on to the server at the same time.

Symposium Web Center Portal refuses additional logons once the maximum number of logons has been reached. Contact your distributor for details on purchasing additional licenses.

Note: If an agent goes offline without formally logging off, then a supervisor or administrator may need to force a logoff on the server. This is especially important if you are approaching the maximum number of logons.

Configuring agent access to Symposium Web Center Portal

To handle Symposium Web Center Portal-generated inquiries, agents must have a compatible web browser installed on their workstations. After you install the Symposium Web Center Portal software on the server and web server, point the agents' browsers to the intranet web server's files. By default, the URL is `http://hostname/agent`, where *hostname* is the Symposium Web Center Portal database server name or host name.

Before agents can log on to the web server, an administrator or supervisor must add the agents' user IDs and passwords. Use Symposium Web Center Portal Administrator to add user IDs and passwords.

Settings for Internet Explorer

Agents' PC settings for Internet Explorer must be changed to enable ActiveX controls and plug-ins.

To enable Active X

- 1 Click Tools → Internet Options → Security → Custom level.
- 2 For Initialize and script ActiveX controls not marked as safe, select Prompt.
- 3 Click OK to exit the Security Setup dialog box.
- 4 Click Yes to accept the security settings change.
- 5 Click OK to exit the Internet Options dialog box.

Sample web sites

Web pages are one source of the Internet transactions that Symposium Web Center Portal handles. People who are browsing the Internet can fill out and submit a form on the Web that is then collected by Symposium Web Center Portal.

Symposium Web Center Portal provides two sample web sites that your web master can customize. To view the sites, point your browser to <http://<hostname>/swcp-html/index.html>, where <hostname> is the host name of the Symposium Web Center Portal server.

Understanding user access classes

Introduction

Access classes define and control the permissions of users who are logged on to Symposium Web Center Portal. Each user must belong to one of three fixed classes: Administrator, Supervisor, or Agent.

The following list shows the permissions that are assigned to members of each of the three access classes:

Agent

- Log on to the Agent Interface using a web browser.
- Respond to customer inquiries.
- Update customer data.
- View customer history.

Supervisor

- Log on to Symposium Web Center Portal Administrator.
- Add and delete agents.
- Add and delete skillsets.
- Move agents between skillsets.
- Log off agents and supervisors.
- View and print real-time displays.
- Configure thresholds and threshold displays for agents.

Administrator

Administrators have the same permissions as supervisors and can also perform the following tasks:

- Configure the system.
- Add, delete, or log off administrators.
- Remove historic information from the database.

Logging on to Symposium Web Center Portal Administrator

Introduction

This section explains how to log on and off Symposium Web Center Portal Administrator.

Only administrators or supervisors can log on to Symposium Web Center Portal Administrator. You cannot delete the default Administrator and Supervisor logons (SysAdmin and SysSuper) that are supplied with Symposium Web Center Portal.

Default user ID

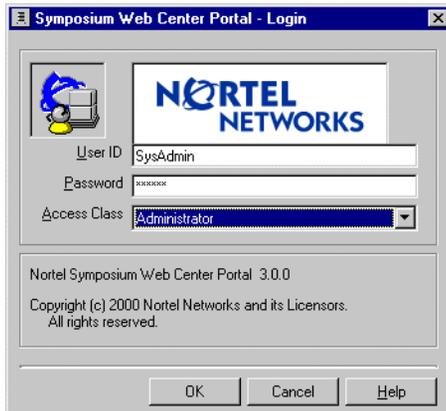
The first time you log on to Symposium Web Center Portal Administrator, use the default user ID “SysAdmin,” and the password “Nortel.” You should create a user ID with administrative privileges for future use.

The first time you log on as a supervisor, use the default user ID “SysSuper,” and the password “Nortel.”

To log on to Symposium Web Center Portal Administrator

- 1 From the Windows Start menu, choose Programs → Nortel Networks - Symposium Web Center Portal → Administrator → Administrator.

Result: The Symposium Web Center Portal - Login window appears.

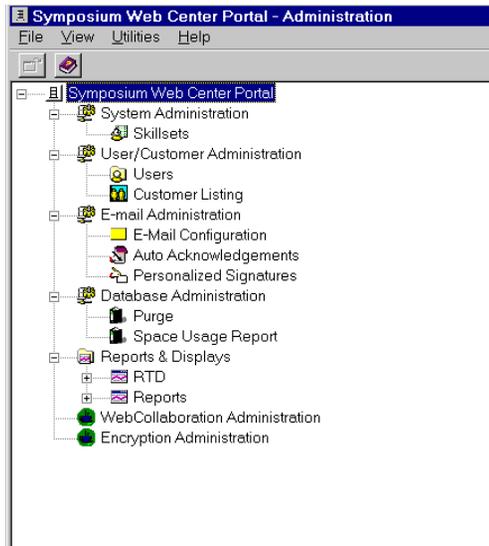


- 2 Type your user ID and password.
- 3 On the Access Class list, select the access class that matches your user ID.

Note: If your logon is rejected, check that you are using the correct access class and that the database server is online.

4 Click OK.

Result: The Symposium Web Center Portal - Administration window appears.



To log off Symposium Web Center Portal Administrator

Choose File → Exit.

Managing skillsets

Introduction

A skillset is a label applied to a set of skills, capabilities, or knowledge that an agent may require to respond to a given request.

Note: You can assign only agents to skillsets. You cannot assign supervisors or administrators to skillsets.

For example, Claire is fluent in French. To make sure that French-speaking messages go to the most capable agent, the supervisor creates a skillset called French. Any requests that are labeled French go to Claire.

Vic and Lee, who work in the same call center, handle difficult technical issues. Therefore, both are assigned to the Technical skillset. Since Lee understands French, he is also assigned to the French skillset as a backup to Claire.

When a customer sends a message that matches the French skillset, Symposium Web Center Portal puts the inquiry into the French queue. When Claire and Lee log on, they see the skillset name and message list.

Note: You can define a maximum of 350 skillsets for Symposium Web Center Portal.

If you are using Symposium eMail Manager, you need to map e-mail accounts to some of the skillsets. For more information about e-mail accounts, see “Mapping e-mail accounts to skillsets” on page 234.

Note: You cannot use the Euro Symbol in a skillset name or a customer name.

Who can manage skillsets

Both administrators and supervisors can add, change, and delete skillsets, and assign agents to skillsets.

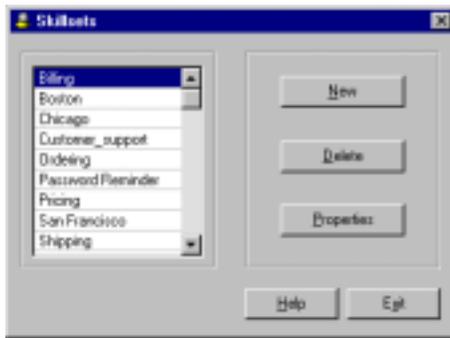
Default skillset

There is no default skillset in Symposium Web Center Portal. However, you can create a skillset to use as the default, and then assign all of the agents in your call center to the skillset. You may want to do this to ensure that your customers always have a skillset to choose on the web form.

To add skillsets

- 1 In the Symposium Web Center Portal Administration window, click the plus sign (+) next to Symposium Web Center Portal.
- 2 Click the plus sign (+) next to System Administration.
- 3 Double-click Skillsets.

Result: The Skillsets window appears.



4 Click New.

Result: The Skillset Properties window appears.

The screenshot shows a 'Skillset Properties' dialog box. It has a title bar with a close button. The dialog is divided into two sections: 'Skillset Details' and 'Threshold Details'. Under 'Skillset Details', there are three input fields: 'Name' (containing 'New Skillset'), 'ACD DN' (containing '0'), and 'Priority' (containing '0'). Under 'Threshold Details', there are seven input fields, all containing '0': 'Agents Available', 'Agents In Service', 'New Calls Waiting', 'Open Calls Waiting', 'Pending Calls Waiting', 'Longest Wait Time', and 'Average Handle Time'. At the bottom of the dialog are 'Save' and 'Cancel' buttons.

5 In the Skillset Details section, type the name of the skillset.**6** In the ACD DN box, type the ACD DN or CDN that is assigned to handle callbacks from this skillset.**ATTENTION**

If you do not enter the correct ACD DN or CDN, the DTH will not work properly.

7 In the Priority box, assign the Symposium Web Center Portal priority for callbacks from this skillset.**ATTENTION**

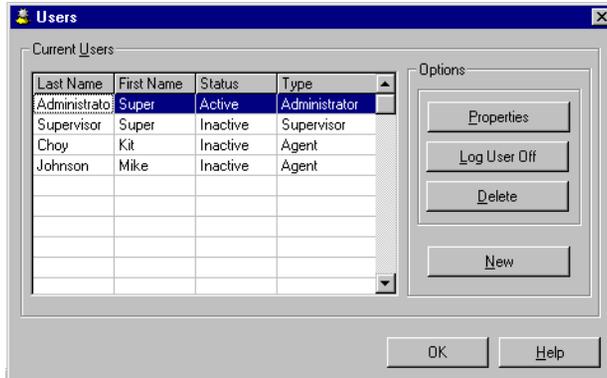
The DTH will not work properly if you do not assign skillsets with a priority. The priorities range from one to ten. One is the highest priority. Ten is the lowest priority. If you are using the Dynamic Transaction Handler (DTH), the priority of the skillset determines the order by which the transactions are processed.

8 Click Save to add the skillset to the list.**9** To add more skillsets, repeat steps 4 to 8.**10** When you are finished adding skillsets, click Exit.

To assign agents to skillsets

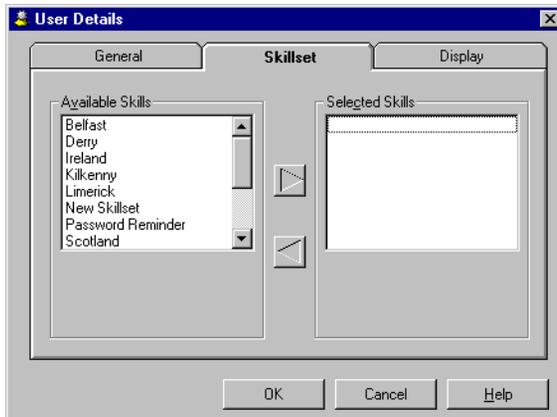
- 1 In the Symposium Web Center Portal Administration window, click the plus sign (+) next to Symposium Web Center Portal.
- 2 Click the plus sign (+) next to User/Customer Administration.
- 3 Double-click Users.

Result: The Users window appears.



- 4 On the Current Users list, select the agent you want to assign to a skillset.
- 5 Click Properties.
- 6 Click the Skillset tab.

Result: The User Details window appears.



- 7 In the Available Skills pane, click the skillset to which you want to assign the agent.
- 8 Click the right arrow.
- 9 Click OK.

To change skillset properties

- 1 In the Symposium Web Center Portal Administration window, click the plus sign (+) next to Symposium Web Center Portal.
- 2 Click the plus sign (+) next to System Administration.
- 3 Double-click Skillsets.
- 4 In the Skillset Names box, select the skillset that you want to change.
- 5 Click the Properties tab to change the ACD-DN or the priority.
- 6 When you are finished, click Save.

To delete skillsets

- 1 Reassign any pending transactions assigned to the skillset to another skillset before you delete the skillset.

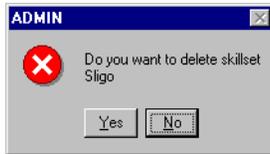
ATTENTION

When you delete a skillset, all transactions that are assigned to that skillset are lost, even if you create another skillset with the same name. This is because a skillset is assigned a unique ID that maps to the skillset name.

- 2 In the Symposium Web Center Portal Administration window, click the plus sign (+) next to Symposium Web Center Portal.
- 3 Click the plus sign (+) next to System Administration.
- 4 Double-click Skillsets.
- 5 Select the skillset that you want to delete.

- 6 Click Delete.

Result: You see the following message:



- 7 Click Yes to confirm that you want to delete the skillset.

Using a dump skillset

You can create a dump skillset to use when you want to assign the transaction to a particular agent, or create a transaction for the Web Communication Manager.

The dump skillset is not visible to the customer on the web center, and transactions are not pushed to this skillset.

Handling unassigned skillsets

Introduction

Symposium Web Center Portal automatically checks for unassigned skillsets.

Every skillset must have at least one agent assigned to it at all times. Otherwise, transactions received for the unassigned skillset are stored in the database but not sent to agents for processing.

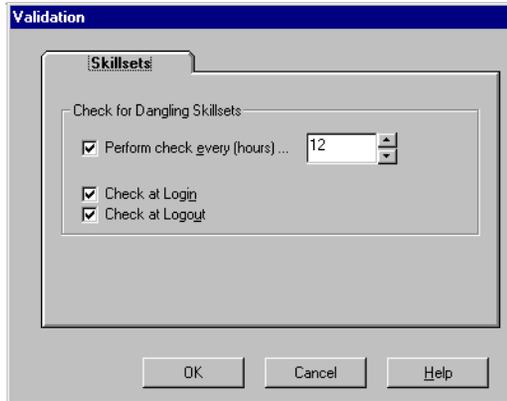
If you receive an error message about an unassigned or dangling skillset, you should assign an agent to the skillset right away—even if the agent is not logged on—to avoid losing track of transactions. The system stores any transactions received for that skillset in the database. The agent who has been assigned to the skillset sees the transactions when she or he logs on.

Symposium Web Center Portal verifies skillsets at intervals that you configure. You can schedule a validation for a specific interval (in hours) for each time that you log on, and for each time that you log off.

To set the skillset validation

Use the Validation window to set the occasions when Symposium Web Center Portal automatically checks for unassigned skillsets.

- 1 From Symposium Web Center Portal Administrator, choose Utilities → Options.
- 2 Ensure that the Perform check every (hours) box is checked.

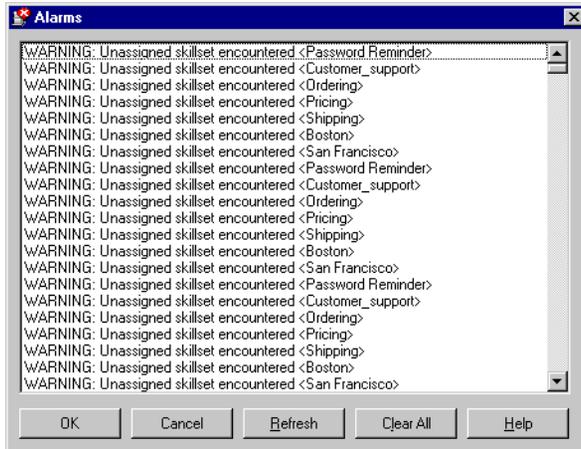


- 3 Set the number of hours that you want to pass between skillset validations.

To view the skillset alarms

- 1 From the Symposium Web Center Portal Administration window, choose View → View Alarms.

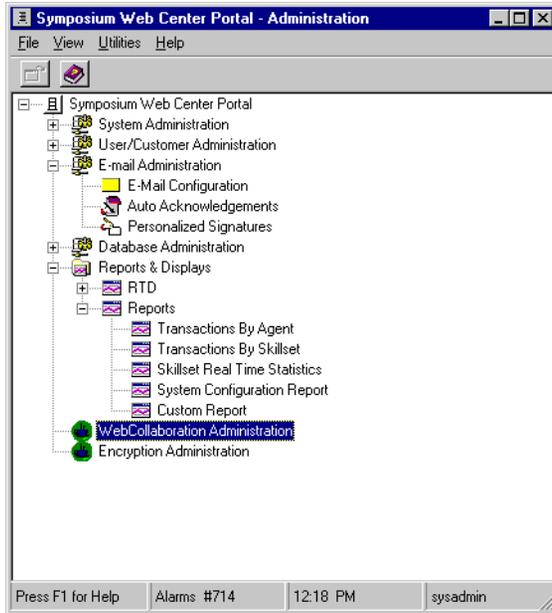
Result: The Alarms window appears. All of the warnings, including the skillset validation warnings, appear.



- 2 On the Alarms window, look for errors relating to skillsets.

Note: If no alarms or errors exist, the View Error menu is disabled.

The number of Alarms also appears on the Status bar of the Administration window.



Adding and deleting users

Introduction

Follow the procedures in this section to add and delete administrators, supervisors, and agents.

Note: You cannot delete the default Administrator and Supervisor logons (SysAdmin and SysSuper) that are supplied with Symposium Web Center Portal.

You can create agents without assigning them to skillsets. However, agents cannot see any transactions unless they are assigned to a skillset.

Who can manage users

Administrators can add, change, and delete passwords for all three access classes.

Supervisors can do the same tasks only for agents.

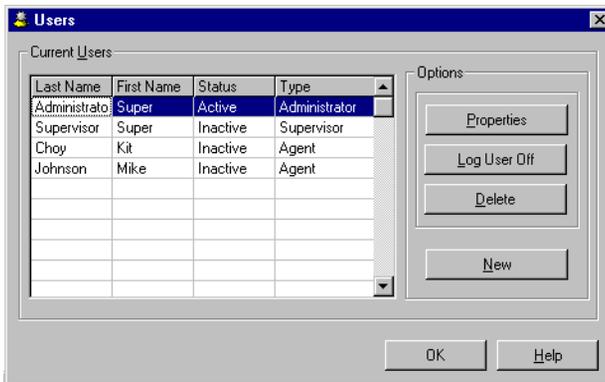
Both administrators and supervisors can log other users off the system.

To add administrators or supervisors

- 1 Log on to Symposium Web Center Portal Administrator with the administrator ID.
- 2 Click the plus sign (+) next to Symposium Web Center Portal.
- 3 Click the plus sign (+) next to User/Customer Administration.

- 4 Double-click Users.

Result: The Users window appears.



- 5 Click New.

Result: The User Details window appears.

The 'User Details' window has three tabs: General, Skillset, and Display. The 'General' tab is active and contains the following sections:

Identification Details:

- Last Name:
- First Name:
- User ID:
- Password:

Contact Details:

- DN:
- Fax:
- E-mail:
- Access:

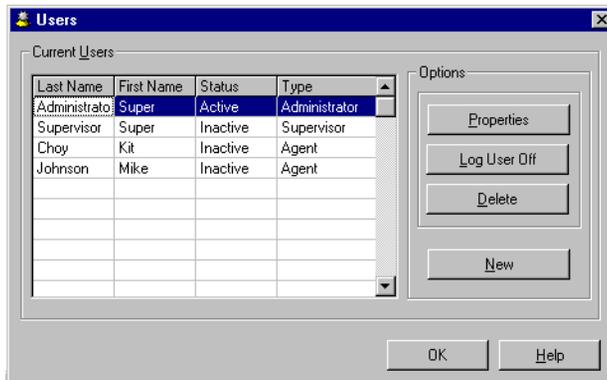
Buttons at the bottom: OK, Cancel, Help

- 6 Type the new user's identification and contact details.
- 7 From the Access drop-down list, select the user's access class (either Administrator or Supervisor).
- 8 Click OK.

To add agents

- 1 Log on to Symposium Web Center Portal Administrator with the Administrator user ID.
- 2 Click the plus sign (+) next to Symposium Web Center Portal.
- 3 Click the plus sign (+) next to User/Customer Administration.
- 4 Double-click Users.

Result: The Users window appears.



- 5 Click New.
- 6 Enter the new agent's identification and contact details.
- 7 Click the Skillset tab.
- 8 Select the skillset to which the agent belongs, and then click the arrow to move the skillset to the Selected Skills box.
- 9 Click the Display tab.
- 10 Select the skillset(s) that you want to appear on the agent's Skillset Statistics display, and then click the arrow to move the skillset to the Displayed Skills box.
- 11 Click OK.

To change user properties

- 1 Log on to Symposium Web Center Portal Administrator with the Administrator user ID.
- 2 Click the plus sign (+) next to Symposium Web Center Portal.
- 3 Click the plus sign (+) next to User/Customer Administration.
- 4 Double-click Users.
- 5 Select the user whose properties you want to change.
- 6 Change the General, Skillset, and Display properties as required.
- 7 When you are finished, click OK.

To delete a user

When you delete an agent, supervisor, or administrator, you permanently remove him or her from Symposium Web Center Portal. The process of creating another user with the same information as the user you deleted from Symposium Web Center Portal does not restore the user. Symposium Web Center Portal creates a unique user ID for every user added.

Notes:

- When you delete an agent, a record for that agent's closed transactions is stored in the database.
- When you run a report, the name of the deleted agent appears as No agent.
- When closed transactions for the deleted agent appear on the Agent Workbook, they are listed as having an Undefined Agent ID.

Before you delete an agent, ensure that all transactions that belong to that agent are reassigned. For more information about reassigning transactions, refer to the *Symposium Web Center Portal User Guide for Agents and Supervisors*, and to the Help files.

- 1 Log on to Symposium Web Center Portal Administrator. If you want to delete an administrator or supervisor user ID, you must log on with administrator permissions.
- 2 Click the plus sign (+) next to Symposium Web Center Portal.
- 3 Click the plus sign (+) next to User/Customer Administration.

- 4 Double-click Users.
- 5 Select the user that you want to delete.
Note: You cannot delete the default Administrator and Supervisor logons (SysAdmin and SysSuper) supplied with Symposium Web Center Portal or change the supplied default passwords.
- 6 Click Delete.
- 7 Confirm that you want to delete the selected user.

To view agent status

- 1 Log on to Symposium Web Center Portal Administrator.
- 2 Click the plus sign (+) next to Symposium Web Center Portal.
- 3 Click the plus sign (+) next to User/Customer Administration.
- 4 Double-click Users.

Result: The Status column displays whether agents are currently active or inactive.

To change user passwords

- 1 Log on to Symposium Web Center Portal Administrator. If you want to change an administrator's or supervisor's password, you must log on with administrator permissions.
- 2 Click the plus sign (+) next to Symposium Web Center Portal.
- 3 Click the plus sign (+) next to User/Customer Administration.
- 4 Double-click Users.
- 5 Select the user whose password you want to change.

- 6 Click Properties.

Result: The User Details window appears.



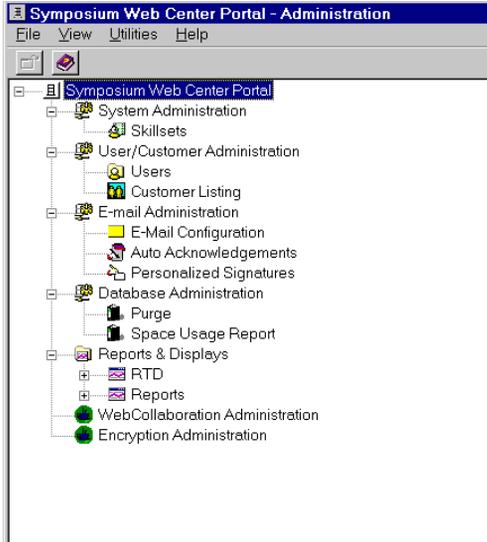
The screenshot shows a 'User Details' dialog box with three tabs: 'General', 'Skillset', and 'Display'. The 'General' tab is active. It contains two sections: 'Identification Details' and 'Contact Details'. In the 'Identification Details' section, there are four text input fields: 'Last Name' (containing 'Johnson'), 'First Name' (containing 'Mike'), 'User ID' (containing 'MikeJ'), and 'Password' (containing asterisks). In the 'Contact Details' section, there are four fields: 'DN' (containing '75'), 'Fax' (containing '555-2222'), 'E-mail' (containing 'mikej@letronix.com'), and 'Access' (a dropdown menu showing 'Agent'). At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Help'.

- 7 In the Password box, enter the new password.
For security, asterisks replace the password characters as you type.
- 8 Click OK.

To view your user ID

To view the user ID with which you are currently logged on, from the Symposium Web Center Portal Administration window, choose View → Status Bar.

Result: Your current user ID is shown at the right of the status bar.



Note: If the status bar already appears, a check mark appears beside the Status Bar menu item.

To log users off the system

- 1 Log on to Symposium Web Center Portal Administrator.
- 2 Click the plus sign (+) next to Symposium Web Center Portal.
- 3 Click the plus sign (+) next to User/Customer Administration.
- 4 Double-click Users.
- 5 Select the user you want to log off.
- 6 Click Log User Off.

Result: The Logout Confirmation window appears.



- 7 Click Yes to confirm that you want to log off the user.

Working with customers

Introduction

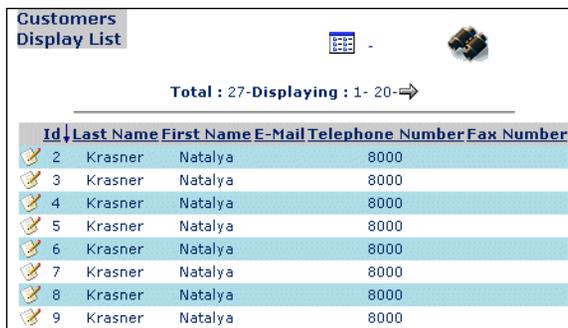
This section explains how to view a list of customers or search for a particular customer, and how to edit customer information.

To view the list of customers

In the Customer Listing window, you can view the list of customers and edit the customer's details.

- 1 Log on to Symposium Web Center Portal Administrator.
- 2 Click the plus sign (+) next to Symposium Web Center Portal.
- 3 Click the plus sign (+) next to User/Customer Administration.
- 4 Double-click Customer Display List.

Result: The Customers Display List window appears.



Id	Last Name	First Name	E-Mail	Telephone Number	Fax Number
2	Krasner	Natalya		8000	
3	Krasner	Natalya		8000	
4	Krasner	Natalya		8000	
5	Krasner	Natalya		8000	
6	Krasner	Natalya		8000	
7	Krasner	Natalya		8000	
8	Krasner	Natalya		8000	
9	Krasner	Natalya		8000	

- 5 To display a list of customers, click the Display List icon .
- 6 To sort the list of customers, click a column heading.
- 7 To search for a customer, click the Search icon , and then enter the text that you want to find.

To change customer details

- 1 Log on to Symposium Web Center Portal Administrator.
- 2 Click the plus sign (+) next to Symposium Web Center Portal.
- 3 Click the plus sign (+) next to User/Customer Administration.
- 4 Double-click Customer Listing.
- 5 Click Edit  next to the name of the customer that you want to edit.
- 6 Update the customer details as necessary, and then click Submit.
- 7 Click the display list icon  to go back to the customer listing.
- 8 Click File, and then click Exit to close the browser.

Chapter 6

Configuring e-mail for Symposium Web Center Portal

In this chapter

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Overview

Introduction

Symposium Web Center Portal fully integrates Internet e-mail messages into your call center agents' work flow. To support this feature, create e-mail accounts on your e-mail server to receive and send e-mail using Symposium Web Center Portal. These e-mail accounts must be associated with skillsets using the Symposium Web Center Portal Administrator. Symposium Web Center Portal supports multiple inbound and multiple outbound mailboxes.

Note: For more information about configuring your e-mail server to work correctly with Symposium Web Center Portal, refer to the appropriate white papers on the Partner Information Center (PIC) product page (<http://www.nortelnetworks.com/prd/picinfo/index.html>). When you log on to the PIC web site, search by brand, and then choose Symposium Web Center Portal.

Functionality

Symposium eMail Manager 3.0 provides the following functionality:

- The contact center can receive e-mail requests from one or more mailboxes for presentation to agents as Symposium Web Center Portal transactions while using the skill-based routing features of Symposium Call Center Server.
- Agents can respond efficiently to customers by e-mail.
- Responses to customers can originate from a single mailbox for all outbound transactions, or from an individual mailbox for each skillset.
- The thread of conversation between the customer and the agent is easily referenced.
- Supervisors can configure e-mail acknowledgements to send to customers who have sent e-mail or web requests to contact center mailboxes. Acknowledgements to customers can vary on a per skillset basis, and can include customer data, such as the customer's name.

- Supervisors can configure auto-signatures to append to outbound agent e-mails (for example, a disclaimer). Auto-signature is on a per skillset basis.
- Symposium eMail Manager includes an analytical tool to gather information on a site configuration, as well as to test database and e-mail server network connection. The results are compiled into a report file.

For information about establishing e-mail accounts, refer to your POP3 documentation.

Configuring the mail server connections

Introduction

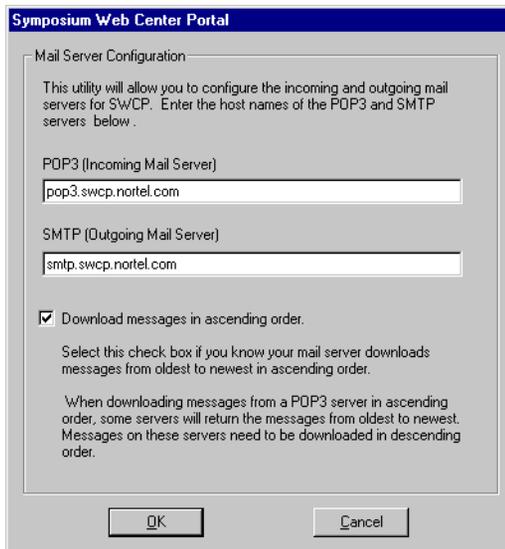
This section provides you with the procedure to establish the connection with the mail server. Follow the procedure below if you did not configure the mail server connections when you installed Symposium Web Center Portal.

To establish a connection to the mail server

Before you begin, ensure that you have installed all of the required PEPs for Symposium Web Center Portal. For more information about installing PEPs, refer to “Installing software PEPs and service updates” on page 187.

- 1 Click Start → Programs → Nortel Networks - Symposium Web Center Portal → Administrator → Mail Server Configuration.

Result: The Symposium Web Center Portal Mail Server Configuration window appears.



- 2 In the POP3 box, type the host name of the POP3 mail server.
- 3 In the SMTP box, type the SMTP mail server name.

- 4 If you need to configure your e-mail server to display e-mail transactions in ascending order, select Download messages in ascending order. For more information, refer to your e-mail server documentation.

Note: The order by which e-mails are forwarded to the agent depends on your mail server. For example, when this box is cleared, Exchange mail servers present messages to the agents starting with the oldest message (default). If you are using other mail servers (such as Linux Mail server), you must check this box to receive the oldest message first. For more information, refer to your e-mail server documentation.

- 5 Click OK.

Mapping e-mail accounts to skillsets

Introduction

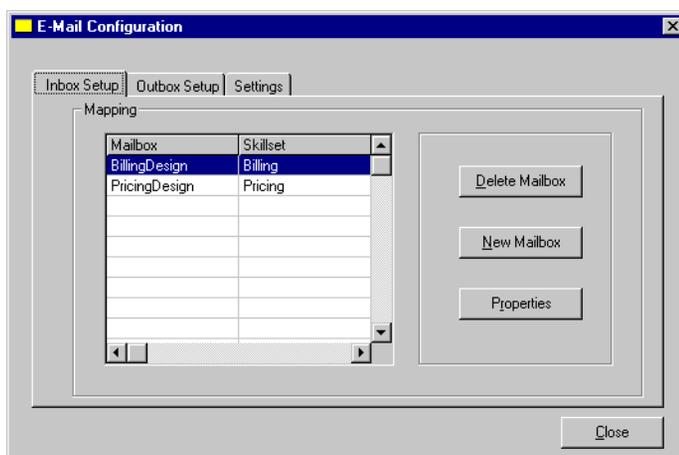
When customers send requests using e-mail, the e-mails are initially stored in a mailbox on the e-mail server (for example, support@company.com). You must map these mailboxes to corresponding skillsets using the Symposium Web Center Portal Administrator. This allows Symposium Web Center Portal to retrieve the e-mails from the e-mail server and present them as transactions for a particular skillset.

Note: You can assign multiple mailboxes to one skillset for incoming e-mails.

To map e-mail accounts to skillsets

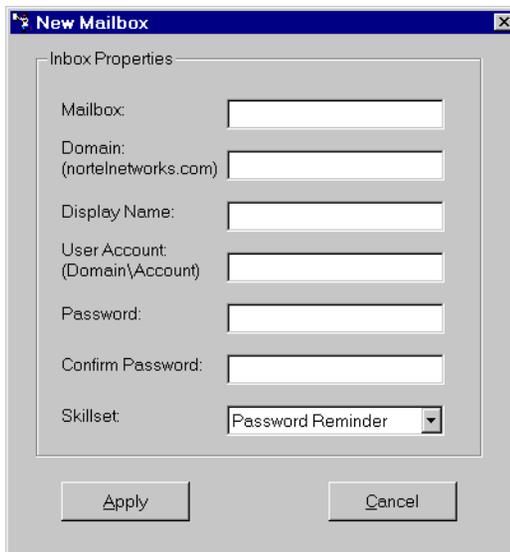
- 1 From the Windows Start menu, choose Programs → Nortel Networks - Symposium Web Center Portal → Administrator → Administrator.
- 2 Log on as an administrator with the User ID **SysAdmin**, the Password **Nortel**, and the Access Class **Administrator**, and then click OK.
- 3 Click the plus sign (+) next to E-mail Administration, and then double-click E-Mail Configuration.

Result: The E-Mail Configuration window appears.



4 Click New Mailbox.

Result: The New Mailbox window appears.



5 In the Mailbox box, type the name of a mailbox set up on the POP3 server.

Note: Mailbox names are case-sensitive. You must type the mailbox name exactly as it appears on your e-mail server.

6 In the Domain box, type the domain name that is appended to the end of the e-mail address. For example, if you are expecting an e-mail response from the e-mail address infor@letronix.com, then you must type letronix.com.

7 In the Display Name box, type the name you want displayed on the e-mail (for example, customersupport@company.com).

8 In the User Account box, type the name of the account that owns the mailbox. This step is optional depending on your mail server. If you enter an account, it must be in the format domain\account corresponding to the mailbox owner on the mail server.

Note: Most e-mail servers do not require this field. For more information, refer to the documentation provided with your mail server.

- 9 In the Password box, enter the password for the account that has been specified as the owner of that mailbox.
Note: When you change a password, you must update this password in the Symposium Web Center Portal Administrator.
- 10 In the Confirm Password box, type the same password you typed in the Password box.
- 11 In the Skillset box, select the skillset to which new transactions arriving by e-mail for this profile will be routed.
- 12 Click Apply.
Result: The mapped mailbox and the skillset appear in the Inbox Setup box.
- 13 Repeat steps 4 to 10 for each mailbox.

Configuring outbound mailboxes

Introduction

This section provides information about configuring outbound mail boxes.

When you configure the outbound mailboxes, keep in mind that

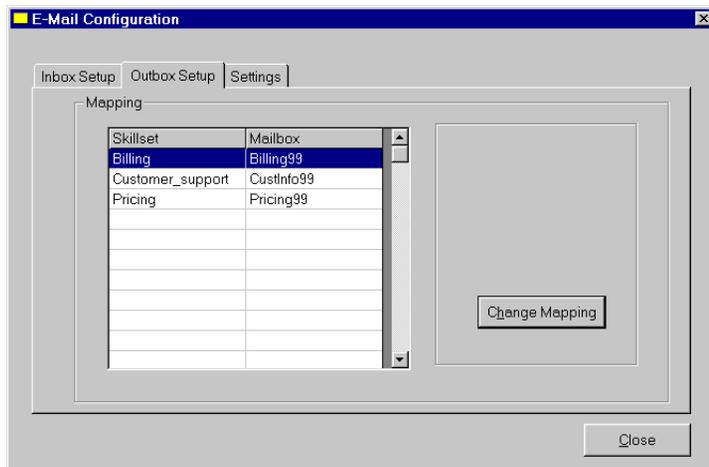
- outbound mailboxes are set up automatically to match inbound mailboxes
- multiple skillsets may use one mailbox for outbound e-mail

You can create a general mailbox account for outbound mail so that customers see your reply coming from a mailbox name representing your company. For example, customers who send inquiries to sales@letronix.com and support@letronix.com may both see responses generated from info@letronix.com.

To configure the outbound mailboxes

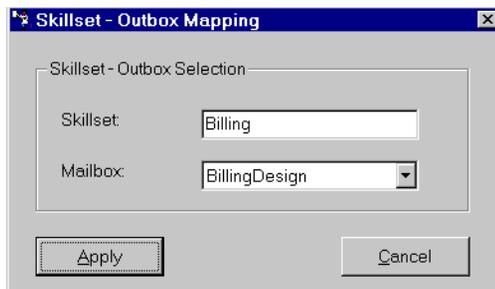
- 1 From the Windows Start menu, choose Programs → Nortel Networks - Symposium Web Center Portal → Administrator → Administrator.
- 2 Log on as an administrator with the User ID **SysAdmin**, the Password **Nortel**, and the Access Class **Administrator**, and then click OK.
- 3 Click the plus sign (+) next to E-mail Administration, and then double-click E-Mail Configuration.

- 4 Click the Outbox Setup tab.



- 5 Click Change Mapping.

Result: The Skillset - Outbox Mapping window appears.



- 6 In the Skillset box, select the skillset you want to map to the mailbox.
- 7 In the Mailbox box, select the mailbox you want to map to the skillset.
- 8 Click Apply.

Result: All outbound e-mail is sent from the skillset you chose in the Outbound Setup tab.

Configuring the e-mail scan interval

Introduction

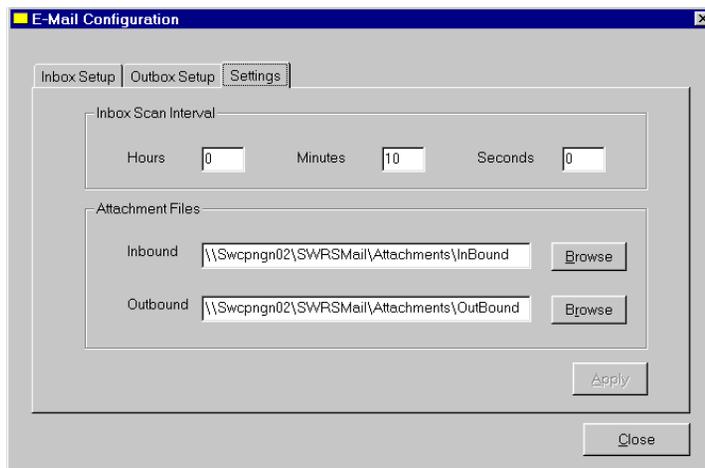
The Symposium eMail Manager scans for inbound mail and outbound mail at set intervals. The interval between scans depends on your needs and your system resources. Frequent scanning can place an unnecessary load on your server. Infrequent scanning can mean that messages are not transferred to agents quickly enough.

To configure the inbound scan interval

- 1 From the Windows Start menu, choose Programs → Nortel Networks - Symposium Web Center Portal → Administrator → Administrator.
- 2 Log on as an administrator with the User ID **SysAdmin**, the Password **Nortel**, and the Access Class **Administrator**, and then click OK.
- 3 Click the plus sign (+) next to E-mail Administration, and then double-click E-Mail Configuration.

Result: The E-Mail Configuration window appears.

- 4 Click the Settings tab.



- 5 In the Inbox Scan Interval boxes, enter the interval between e-mail scans in hours, minutes, and seconds. This interval is the time in minutes between the IMS stopping and the OMS starting.

Note: The minimum acceptable polling interval is 1 minute.

- 6 Click Apply.
- 7 Click Close.

Setting up auto acknowledgement

Introduction

You can configure Symposium eMail Manager to automatically acknowledge receipt of customer e-mails and web queries. You can acknowledge any combination of customer queries and follow-up messages by the Web or by e-mail. You can personalize the acknowledgement to include data from the customer's record.

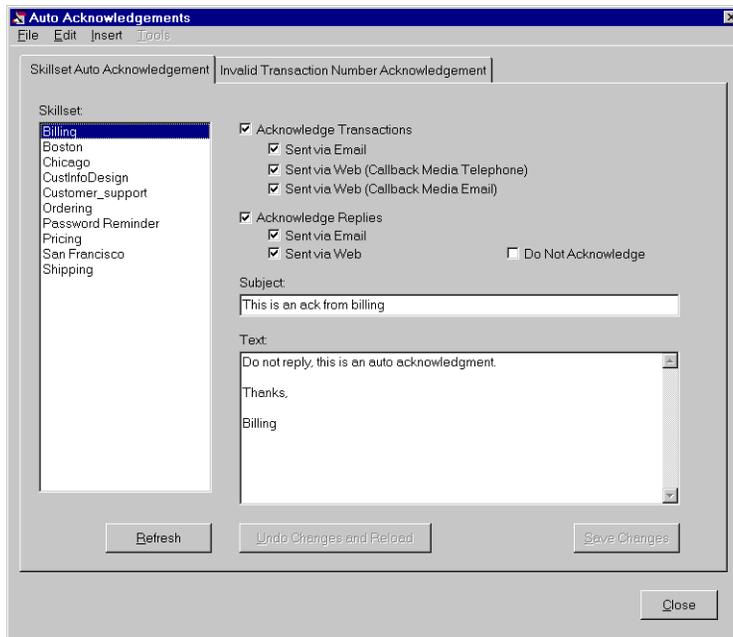
Note: When you add text to an auto acknowledgement, ensure that you use plain text, fixed font.

Acknowledgements can vary for each skillset.

To create an auto acknowledgement message

- 1 Log on to Symposium Web Center Portal Administrator.
- 2 Click the plus sign (+) next to E-mail Administration.
- 3 Double-click Auto Acknowledgements.

Result: The Auto Acknowledgements window appears.



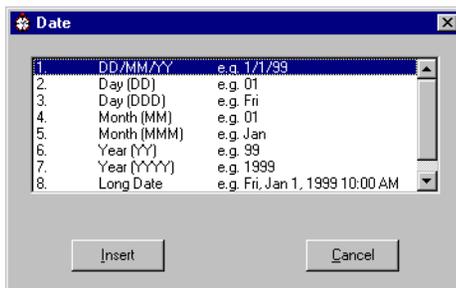
- 4 Click the skillset for which you want to send auto acknowledgement text.
- 5 Clear the Do Not Acknowledge check box, and check the Acknowledge Transactions check box.
- 6 Select the conditions under which you want to acknowledge transactions.
- 7 In the Subject box, type the subject of the automatic reply (for example, Request Received).
- 8 In the Text box, type the message that you want to send automatically when a message arrives for this skillset.
- 9 If you want to include an attachment with the message, choose Insert → Attachment Files, and then select the file to attach.
- 10 Click Save Changes, and then click Close.

Note: Auto Signatures are not appended to Auto Acknowledgements.

To insert data into an auto acknowledgement message

- 1 Log on to the Symposium Web Center Portal Administrator.
- 2 Click the plus sign (+) next to E-mail Administration.
- 3 Double-click AutoAcknowledgements.
- 4 Click the tab of the skillset with the auto acknowledgement message into which you want to insert data.
- 5 On the Insert menu, click Date.

Result: The Date window appears.

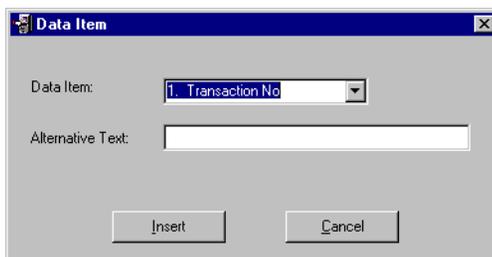


- 6 Select a date and time format, and then click Insert.

Result: The code for the date or time appears in the message. Symposium eMail Manager inserts the current date or time when it sends the message.

- 7 On the Insert menu, click Data Item.

Result: The Data Item window appears.



- 8 From the Data Item drop-down list, select the data item you want to insert, the transaction number, or the customer's e-mail address.
- 9 In the Alternative Text box, type the text that should appear if the selected field is not available for insertion.

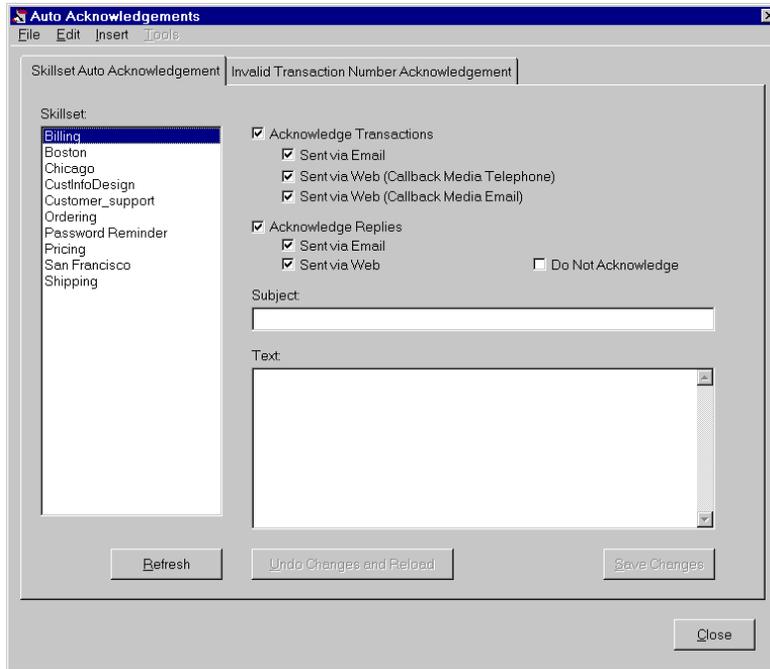
10 Click Insert.

Result: The code for the selected field appears in the message text. In the auto acknowledgement message, Symposium eMail Manager queries the transaction record and inserts the values found in the selected boxes.

To create an Auto Acknowledgement template

- 1** Log on to the Symposium Web Center Portal Administrator.
- 2** Click the plus sign (+) next to E-mail Administration.
- 3** Double-click Auto Acknowledgements.
- 4** On the File menu, click New Template.
Result: The New Template window appears.
- 5** In the Subject Box, type the subject of the Auto Acknowledgment.
- 6** In the Text box, type the text of the template, and then click Save.
- 7** Browse to the location where you store your templates, and then save the file as an .arx file.

- 8 On the Skillset Auto Acknowledgement tab, select the skillset for which you want to use the template.



- 9 Clear the Do Not Acknowledge box.
- 10 Click File, and then click Open Template.
- 11 Select the template you want to use, and then click Open.

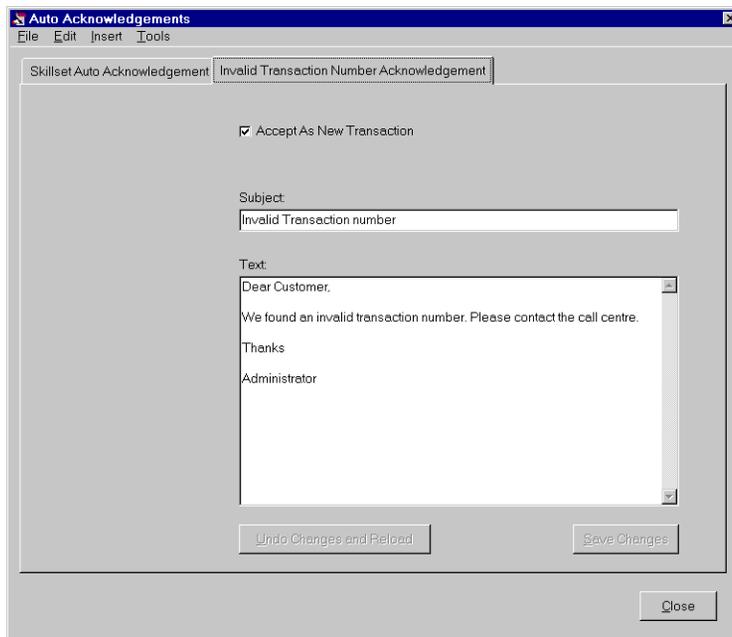
Result: Template content appears in the Auto Acknowledgement window. You can modify this information as required.

- 12 Click Save Changes.

To accept messages with invalid transaction numbers

Messages that do not include a transaction number are automatically accepted by the system as new transactions. Replies to existing transactions use a transaction number surrounded by delimiters, such as <[4992]>. Auto acknowledgement error text is only sent when the sender has entered an incorrect transaction number in the Subject line.

- 1 Log on to Symposium Web Center Portal Administrator.
- 2 Click the plus sign (+) next to E-mail Administration.
- 3 Double-click Auto Acknowledgement.
Result: The Auto Acknowledgements window appears.
- 4 Click the Invalid Transaction Number Acknowledgement tab.



- 5 Check Accept As New Transaction.
- 6 In the Text box, type a message outlining the problem to the customer.
- 7 Click Save Changes, and then click Close.

To reject messages with invalid transaction numbers

- 1 Log on to Symposium Web Center Portal Administrator.
- 2 Click the plus sign (+) next to E-mail Administration.
- 3 Double-click Auto Acknowledgement.
- 4 Click the Invalid Transaction Number Acknowledgement tab.

- 5 Clear the Accept As New Transaction check box.
- 6 In the Subject box, type the heading for the error message (for example, "Invalid Transaction number").
- 7 In the Text box, type an explanation for the rejection of the message.
Example: You can indicate to the sender that if he or she is unsure of the original transaction number, he or she should leave the number out and a new transaction will be created.
- 8 Click Save Changes, and then click Close.

Setting up personalized signatures

Introduction

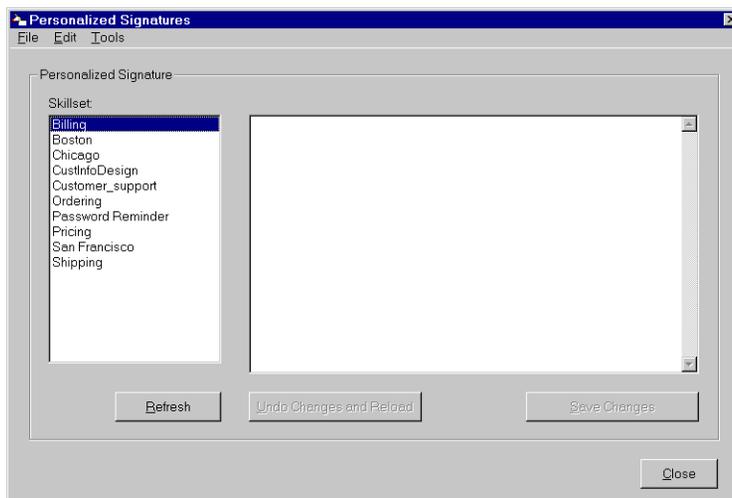
A personalized signature is text that is automatically added at the bottom of an outgoing message. For example, you can encourage customers to visit your customer support web site by adding the URL and other promotional information to every message.

Note: Agents do not see the personalized signature as they are composing a message. You can create a different signature for each skillset. You can also create a template for personalized signatures that you can use for different skillsets.

To create personalized signatures

- 1 Log on to Symposium Web Center Portal Administrator.
- 2 Click the plus sign (+) next to E-mail Administration.
- 3 Double-click Personalized Signature.

Result: The Personalized Signatures window appears.



- 4 Click the skillset for which you want to add personalized signature text.
 - 5 Choose one of the following options to enter text into the Personalized Signature box:
 - Type the message that you want to add automatically to all outbound messages from this skillset.
 - Choose File → Open Template to use template text. Locate the template you want to use, and then click Open.

Result: The template text is automatically inserted into the Personalized Signature box.
 - 6 Click Save Changes, and then click Close.
- Tip:** To use the built-in spelling checker to check your message, choose Tools → Spelling.

To create a personalized signature template

- 1 Log on to Symposium Web Center Portal Administration.
- 2 Click the plus sign (+) next to E-mail Administrator.
- 3 Double-click Personalized Signatures.
- 4 Choose File → New Template.

Result: The New Template window appears.



- 5 Enter the text for the Personalized Signature template, and then click Save.
- 6 Enter a name for the template.
- 7 Choose a location in which to save the template, and then click Save.

Identifying undeliverable messages

Introduction

Symposium eMail Manager informs agents when an e-mail they send is returned as undeliverable. To do this, it must be able to identify a delivery failure. In most cases, delivery failures are e-mails returned from the e-mail system administrator with the original message. The subject field usually contains text identifying that the e-mail is undeliverable. The Symposium eMail Manager also must know who sent the delivery failure report messages.

Note: You must monitor Symposium Web Center Portal for bounced e-mail messages.

To identify undeliverable messages

- 1 On the Symposium eMail Manager server, start Windows Explorer, and then browse to the \Program Files\Nortel Networks\Symposium Web Center Portal\Administrator\Mail Monitors\Inbound directory.
- 2 Open the ims.ini file in a text editor, such as Notepad.
- 3 Find the following section:

```
Value1=Undeliverable  
Value2=Delivery Failure  
and so on to a maximum of 50
```
- 4 Update the value to identify the undeliverable string that you want to detect.
Note: You can detect as many undeliverable strings as necessary.
- 5 Save your changes, and then exit the editor.

To identify the origin of the delivery failure report message

- 1 On the Symposium eMail Manager server, start Windows Explorer, and then browse to Program Files\Nortel Networks\Symposium Web Center Portal\Administrator\Mail Monitors\Outbound directory.
- 2 Open the oms.ini file in a text editor, such as Notepad.
- 3 Find the following section:

```
Value1=System Administrator  
Value2=Postmaster  
and so on to a maximum of 50
```

- 4 Update the value to reflect what your e-mail server uses.
- 5 Save your changes, and then exit the editor.

To monitor Symposium Web Center Portal for bounced e-mails

If Auto Acknowledge is enabled, Symposium Web Center Portal auto acknowledges the undelivered e-mails, causing a loop to occur, which can lead to loss of database space.

You must monitor for occurrences of bounced messages sent to the call center and identify the undelivered string in the subject field of the bounced e-mail. When you update the ims.ini file with the undelivered string of the bounced e-mail, you stop the looping of bounced e-mail messages characterized by the respective undelivered string.

- 1 On the Symposium eMail Manager Server, from the Windows Explorer, browse to ..\Program Files\Nortel Networks\ Symposium Web Center Portal\Administrator\Mail Monitors\InBound.
- 2 Open the ims.ini file in a text editor, such as Notepad.
- 3 Find the following section:

```
[Undeliverable String]  
Value0=Undeliverable  
Value1=Delivery Report (failure)  
Value2=Delivery Failure  
Value3=Returned mail  
Value4=Unknown Recipient  
Value5=Non Remis
```

- 4 Continue adding entries under the Undeliverable String section. In the above example, the next string would be prefaced with Value6=.

Establishing thresholds

Introduction

This section provides the procedures to view and change the threshold values for inbound and outbound e-mail. The threshold for inbound e-mail is the maximum number of e-mails to download from each mailbox in one cycle. The threshold for outbound e-mail is the maximum number of e-mails to send for each skillset in one cycle. Follow the procedures in this section to configure the thresholds for the inbound and outbound e-mail.

To view and change the threshold value for Inbound mail

- 1 On the Symposium eMail Manager server, browse to Program Files\Nortel Networks\Symposium Web Center Portal\Administrator\Mail Monitors\InBound.
- 2 Open the ims.ini file in a text editor, such as Notepad.
- 3 Go to the Mail Threshold section.

```
[Mail Threshold]
```

```
Value=
```

- 4 Update the value to reflect your preferences.
- 5 Save your changes, and then exit the editor.

To view and change the threshold value for Outbound mail

- 1 On the Symposium eMail Manager server, browse to Program Files\Nortel Networks\Symposium Web Center Portal\Administrator\Mail Monitors\OutBound directory.
- 2 Open the oms.ini file in a text editor, such as Notepad.
- 3 Go to the Mail Threshold section.

```
[Mail Threshold]
```

```
Value=
```

- 4 Update the value to reflect your preferences.

- 5 Save your changes, and then exit the editor.

Disabling the auto-numbering in outbound agent e-mails

Introduction

Outbound e-mails sent by agents by default include the transaction number embedded in the subject of the e-mail.

To disable auto-numbering in outbound agent e-mails

1 On the Symposium eMail Manager server, start Windows Explorer and browse to the \Program Files\Nortel Networks\Symposium Web Center Portal\Administrator\Mail Monitors\Outbound directory.

2 Open the oms.ini file in a text editor, such as Notepad.

3 Find the following section:

```
[AutoNumber]  
Value=0
```

4 Update the value to reflect your preferences. The acceptable values are

- 0 - Include Transaction ID in outbound agent e-mails
- 1 - Do not include Transaction IDs in agent e-mails

5 Save your changes and exit the editor.

ATTENTION

If you specify not to include the transaction ID in the e-mail and the customer sends a follow-up reply, then a new Symposium Web Center Portal transaction is created, rather than a response to the original transaction.

Disabling customer record matching on inbound e-mails

Introduction

Upon arrival of new e-mail, Symposium eMail Manager checks if that customer has previously registered through the web site or previously sent e-mail (this check is based on matching e-mail addresses). If this is the customer's first e-mail, a new customer record is created. If the customer is already an existing customer, then a reference to his or her record is held with this request.

To disable customer record matching on inbound e-mails

- 1 On the Symposium eMail Manager server, start the Windows NT Explorer and browse to the \Program Files\Nortel Networks\Symposium Web Center Portal\Administrator\Mail Monitors\Inbound directory.
- 2 Open the ims.ini file in a text editor, such as Notepad.
- 3 Find the following section:

```
[Create CustomerRecord]
Value=0
```
- 4 Update the value to reflect your preferences. The acceptable values are
 - 0 – Search for matching customer record
 - 1 – Do not include search for matching customer record
- 5 Save your changes, and then exit the editor.

ATTENTION

If you disable customer record matching, the agent cannot view the transaction history of that customer.

Preventing follow-up response records

Introduction

When a customer sends a follow-up e-mail response (an e-mail including a transaction number in the subject), the thread of conversation built up with the customer is maintained. The agent can view the original request and follow-up e-mails from both the agent and customer. Alternatively, you can specify that Symposium eMail Manager ignore the transaction ID in the e-mail subject, in which case a new transaction record is created. The agent cannot review the thread of conversation with the customer regarding this transaction.

To prevent Symposium eMail Manager from creating follow-up response records

- 1 On the Symposium eMail Manager server, start the Windows NT Explorer, and then browse to Program Files\Nortel Networks\Symposium Web Center Portal\Administrator\Mail Monitors\Inbound directory.
- 2 Open the ims.ini file in a text editor, such as Notepad.
- 3 Find the following section:

```
[Create TransactionsOnly]
Value=0
```
- 4 Update the value to reflect your preferences. The acceptable values are
 - 0 – If transaction ID found in e-mail, create follow-up response record
 - 1 – Ignore transaction ID if found in e-mail subject
- 5 Save your changes, and then exit the editor.

- 6 The [Create TransactionOnly] and [Create CustomerRecord] values are used together to configure how incoming transactions are handled. The following table details how these values affect incoming transactions:

[Create TransactionsOnly]	[Create CustomerRecord]	Explanation
0	0	If the incoming transaction is a reply to an existing transaction, the transaction status is set to New Reply. The existing Customer Record is used.
0	1	If the incoming transaction is a reply to an existing transaction, the transaction status is set to New Reply. The existing Customer Record is used.
1	0	In all cases, a new Transaction Record is created for incoming transactions. The existing Customer Record is used.
1	1	In all cases, a new Transaction Record is created for incoming transactions. A new Customer Record is also created.

Optimizing the Inbound Mail Service

Introduction

The Inbound Mail Service (IMS) starts when you start the Symposium eMail Manager. The IMS downloads e-mails for the e-mail server to the Symposium Web Center Portal database. This section provides information about the parameters that control the IMS.

IMS parameters

The following parameters control the operation of the IMS:

- **Number of Mailboxes**—The number of mailboxes from which the IMS is required to download. The mailboxes are configured within the Symposium Web Center Portal Administrator utility and are retrieved from the database by the IMS. For more information, refer to “Mapping e-mail accounts to skillsets” on page 234. The current list of mailboxes is retrieved from the database by the IMS at the start of each cycle.

The number of mailboxes varies depending on how you choose to sort the incoming e-mails. You may create separate mailboxes for specific customers, departments, skillsets within departments, special promotions, and so on.

- **IMS Mail Threshold** — The maximum number of e-mails the system can receive from each mailbox in one cycle. This parameter is configurable within the ini file: `..\Nortel Networks\Symposium Web Center Portal\Administrator\Mail Monitors\Inbound\ims.ini`.

You can change this configuration by modifying

```
[Mail Threshold]
Value=100
```

- **Disk Threshold** — The disk threshold is a separate configurable item. The disk threshold defines the minimum amount of disk space required to run IMS. This value ensures that the IMS does not process e-mail attachments if there is no disk space for them in the inbound attachments folder. The default value for the disk threshold is 1024 Mbytes. The minimum

acceptable value is 10 Mbytes. You can change the disk threshold value by modifying

```
[Disk Threshold]
```

```
Value=1024
```

- **Inbox Scan Interval** — The time between the IMS stopping and the OMS starting. This parameter indicates the load put on the database. It is configurable within the Symposium Web Center Portal Administrator utility. For more information, refer to “Configuring the e-mail scan interval” on page 239.

The default value of the Inbox Scan Interval is 1 minute. If you increase this parameter, it reduces the load on the database; however, the mailboxes are polled less frequently for e-mails.

The following important factors contribute to the speed at which the e-mails are retrieved and the overall throughput:

- **Number of e-mails to be downloaded each cycle** — Determined by the IMS mail threshold. If this value is high, the frequency at which less busy mailboxes are accessed decreases.
- **Attachment Ratio** — Indicates how many e-mails have attachments. It allows you to factor how long the download of a fixed number of e-mails from each mailbox takes.
- **Average Size of Attachments** — Larger attachments will further increase the time required for the download of a fixed number of e-mails.

These dependencies are site-specific and can differ greatly due to network traffic, call center type, and seasonal trends. For examples of how these parameters are used in different scenarios, refer to “Sample e-mail configurations” on page 262.

Optimizing the Outbound Mail Service

Introduction

This section provides information about the parameters of the Outbound Mail Service (OMS) and how you can configure these parameters to optimize the performance of the call center.

The OMS starts when the Symposium eMail Manager has started. (The IMS runs first, and then the OMS runs after the specified scan interval). The OMS forwards outbound responses (e-mails sent by agents to customers) to the e-mail server for sending.

OMS configuration details

The following is a list of the configuration details that the OMS examines:

- **Number of Skillsets** — The number of skillsets to which e-mails are sent. These are configured within the Symposium Web Center Portal Administrator utility. For more information, refer to “Mapping e-mail accounts to skillsets” on page 234.
- **OMS Mail Threshold** — The maximum number of e-mails to send to from each skillset in one cycle. This parameter is configured within the ini file, located in the following directory: `..\Nortel Networks\Symposium Web Center Portal\Administrator \Mail Monitors\OutBound\oms.ini`.
The default value is 50. Although there is no enforced maximum or minimum value, you must be aware of the effect on the frequency with which mailboxes are accessed when you make changes to this value. See “Sample e-mail configurations” on page 262.
- **Inbox Scan Interval** — This parameter indicates the load put on the database. You can use the Symposium Web Center Portal Administrator utility to configure this parameter. For more information, refer to “Configuring the e-mail scan interval” on page 239. This is the same parameter described in the IMS section, but since the IMS and OMS run alternately, it impacts both of them.

Once the OMS completes a single cycle, it stops and the IMS then runs. The OMS starts again once the IMS completes its cycle.

The following important factors contribute to the speed at which the e-mails are retrieved, and the overall efficiency:

- Number of e-mails to be sent each cycle — Determined by the OMS mail threshold. The length of time it takes for the OMS to run is extended if you have a large number of skillsets, and you are sending large numbers of e-mails.
- Attachment Ratio — Indicates how many e-mails have attachments. This allows you to factor how long it takes to send a fixed number of e-mails.
- Average Size of Attachments — Larger attachments increase the time required to send a fixed number of e-mails.

These dependencies are site-specific and can differ greatly due to network traffic, call center type, and seasonal trends.

Sample e-mail configurations

Introduction

This section provides sample e-mail configurations for high-volume and low-volume call centers.

Sample configuration for high-volume call centers

Configuration 1

Assumptions	Settings	Throughput
No e-mail attachments	IMS Mail Threshold: 100	4.75 Hour Mailbox Cycle
50 Mailboxes	OMS Mail Threshold: 100	Rate: 1000 Mails per hour
Acknowledgements enabled	Inbox Scan Interval: 2 min	

Configuration 2

Assumptions	Settings	Throughput
50% e-mail attachment ratio	IMS Mail Threshold: 100	6 Hour Mailbox Cycle
Attachment size: 500 kbytes	OMS Mail Threshold: 100	Rate: 800 Mails per hour
50 Mailboxes	Inbox Scan Interval: 2 min	

Configuration 3

Assumptions	Settings	Throughput
No e-mail attachments	IMS Mail Threshold: 10	35 Minute Mailbox Cycle
50 Mailboxes	OMS Mail Threshold: 10	Rate: 900 Mails per hour
Acknowledgements Enabled	Inbox Scan Interval: 2 min	

Configuration 4

Assumptions	Settings	Throughput
50% e-mail attachment ratio	IMS Mail Threshold: 10	42 Minute Mailbox Cycle
Attachment size: 500 kbytes	OMS Mail Threshold: 10	Rate: 700 Mails per hour
50 Mailboxes	Inbox Scan Interval: 2 min	
Acknowledgements Enabled		

Sample configuration for low-volume call centers

Configuration 1

Assumptions	Settings	Throughput
No e-mail attachments	IMS Mail Threshold: 50	35 Minute Mailbox Cycle

Assumptions	Settings	Throughput
10 Mailboxes	OMS Mail Threshold: 50	Rate: 900 Mails per hour
Acknowledgements Enabled	Inbox Scan Interval: 2 minutes	

Configuration 2

Assumptions	Settings	Throughput
50% e-mail attachment ratio	IMS Mail Threshold: 50	42 Minute Mailbox Cycle
Acknowledgements Enabled	OMS Mail Threshold: 50	Rate: 700 Mails per hour
	Inbox Scan Interval: 2 minutes	

Chapter 7

Managing the Web Communication Manager

In this chapter

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Overview

Introduction

The Web Communication Manager Administration page allows you to configure the following features:

- prepared scripts that agents can use in Text Chat
- whether the Text Chat log is saved to the database, and whether it is e-mailed to the customer
- web pages that can be pushed to customers
- URLs used in the Web On Hold and how they appear to the customer
- URLs used in Click Stream Tracking

In addition, the system administrator can configure the agent information that appears at the beginning of each agent statement in a Text Chat session, and set timers for

- Web On Hold polling timeout
- Web On Hold waiting timeout
- Connection timeout

For more information about these timers, refer to “Changing the Web Communication Manager timers” on page 294.

Opening the Web Communication Manager Administration page

- 1 Log on to the Symposium Web Center Portal Administrator.
- 2 In the Symposium Web Center Portal Administrator window, double-click Web Collaboration.

Result: The Web Communication Manager - Login page appears.

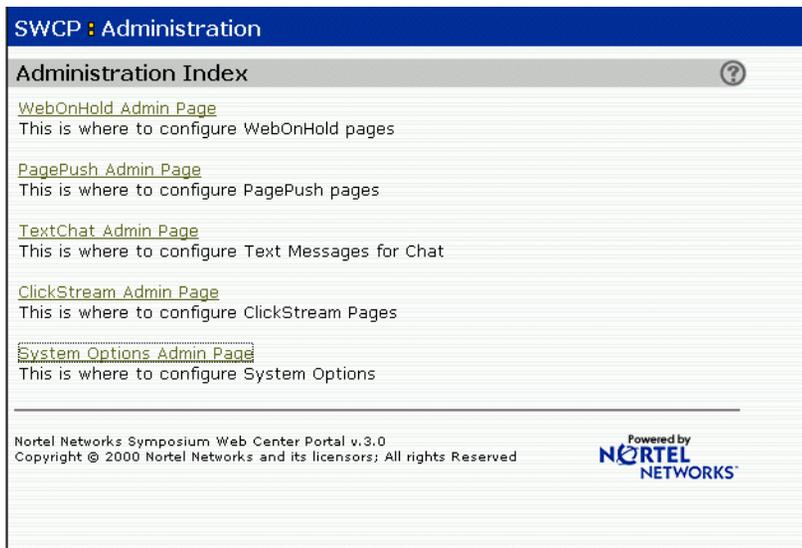


- 3 Type your User ID and Password. The default user ID is “SysAdmin,” and the default password is “Nortel.”

Note: These values are case-sensitive.

- 4 Click Submit.

Result: The SWCP : Administration page appears.



Configuring Text Chat options

Introduction

The Text Chat administration allows you to add, change, or delete predefined agent responses.

In a separate file, you can define the agent information that appears with an agent's comments in the Text Chat window. For example, you can create a standard greeting for customers or a standard thank you message.

Guidelines for Text Chat

Follow these guidelines when you want to use Text Chat:

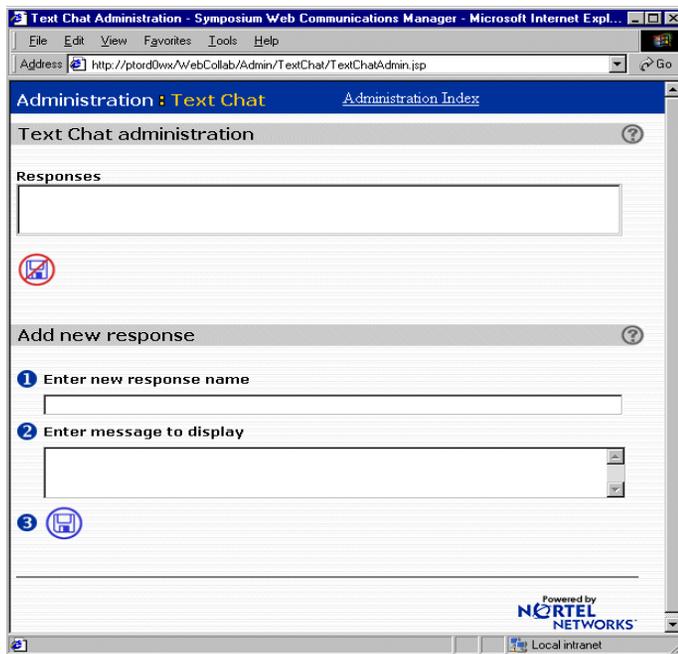
- Agents can open multiple chat sessions with different customers concurrently, but each session is in a separate window.
- Agents cannot conference in another agent or supervisor.
- Agents cannot transfer an ongoing chat session with a customer to another agent.
- The canned scripts are not based on skillsets.
- Supervisors cannot monitor chat live.
- The maximum number of characters (including spaces) in a one-line Text Chat response is 1024.

To add a predefined response

- 1 Log on to the Symposium Web Center Portal Administrator.
- 2 In the Symposium Web Center Portal Administrator window, double-click Web Collaboration.
Result: The Web Communication Manager logon page appears.
- 3 Enter your user ID and password. The default user ID is "SysAdmin," and the default password is "Nortel."
- 4 On the Web Communication Manager Administration page, double-click Text Chat Admin page.

5 Click Submit.

Result: The Administration : Text Chat window appears.



6 If necessary, scroll to Enter new response name.

7 In the Enter new response name box, type a descriptive name for the response.

This name will appear in the list of predefined responses in the agent's Web Communication Manager window (for example, *Thank you*).

8 In the Enter message to display box, type the text of the response.

This is the text that appears in the Text Chat log. The text appears in the customer's window. The text must be less than 64 characters (for example, *Thank you for using our services*).

9 Click the Save icon.

Result: The response name is added to the list of responses at the top of the page.

To change a predefined response

- 1 On the Web Communication Manager Administration page, double-click Text Chat Admin Page.
- 2 In the list of response names at the top of the Text Chat Administration page, select the response you want to change.
Result: The text of the response appears below in the Enter message to display box.
- 3 Change the message as desired.
- 4 Click the Save icon.

To delete a predefined response

- 1 On the Web Communication Manager Administration page, double-click Text Chat Admin Page.
- 2 In the Responses box, select the response you want to delete.
- 3 Click the Delete icon.

To define agent information for Text Chat

In a Text Chat session, an agent identifier is automatically added to the beginning of any text added by the agent. Set this identifier in the UserDef.vbs file on the Agent Interface server. The identifier can be one of the following variables:

- full_name (agent's first and last name)
- full_name_agent_id (agent's full name and agent ID)
- first_name (agent's first name only)
- agent_id (agent's ID only)

The default is to show the agent's first and last name.

To change the identifier

- 1 Use a text editor to open the UserDef.vbs file in the directory C:\inetpub\wwwroot\Agent\.
- 2 Locate the line Const AGENT_CHAT_PREFIX = "full_name".

- 3 Change the variable for the identifier you want to use.

For example, to use the agent's first name only as the identifier, replace "full_name" with "first_name".

Result: The line is now `Const AGENT_CHAT_PREFIX = "first_name"`.

- 4 Save the file, and then exit.

Configuring chat log options

Introduction

System Options allows you to select whether chat logs are

- saved to the database
- e-mailed to the customer

To configure chat log options

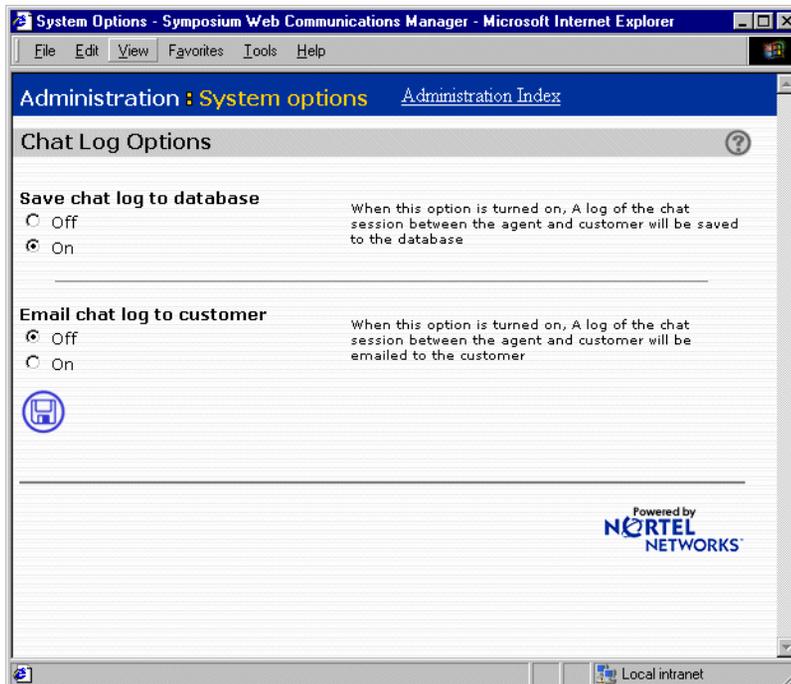
- 1 Log on to the Symposium Web Center Portal Administrator.
- 2 In the Symposium Web Center Portal Administrator window, double-click Web Collaboration.

Result: The Web Communication Manager logon page appears.

- 3 Enter your userid and password. The default userid is **SysAdmin**, and the default password is **Nortel**.

- 4 Click System Options Admin page.

Result: The Administration : System options page appears.



- 5 If you want to save a log of chat sessions between the agent and customer, select On.
- 6 If you want to automatically e-mail a log of the chat session to the customer, select On.
- 7 Click Save to save your chat log options.

Note: Later, you can search for the chat logs in the trans_id table in the database.

Configuring Page Push

Introduction

Page Push administration allows you to select URLs and associate them with a skillset. Agents can then select from a list of these URLs to push a page to the customer.

Guidelines for Page Push

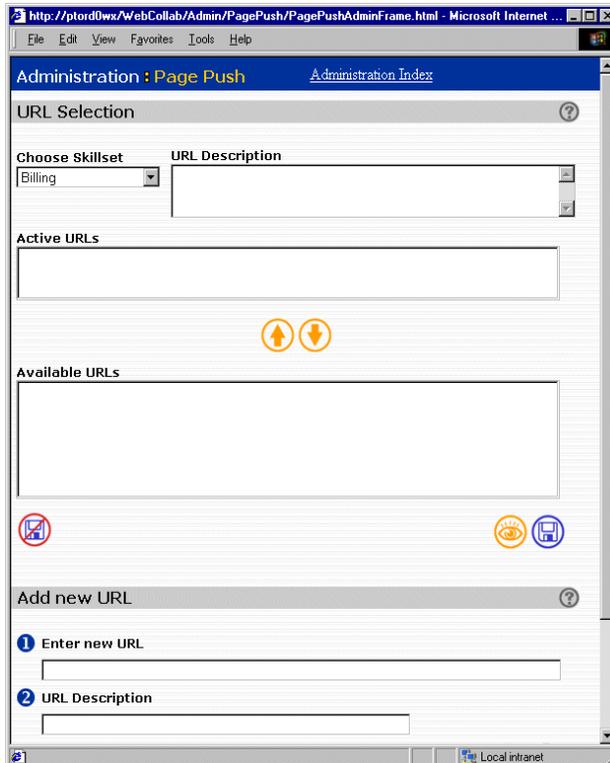
Follow these guidelines when you want to push a page:

- Dynamically generated Web pages may not be shared accurately (for example, personalized pages like myyahoo.com, which you can customize for your choice of stocks, weather, news, and so on). The customer and agent see their own version of the web page.
Dynamic pages customized through the use of cookies may look different from the customer's pages because they have different cookies. Cookies are not shareable by the customer and the agent.
- Push Displayed Page is not supported for pages located on a remote web server.
- Push Displayed Page is not supported for framed pages. A framed page is defined by multiple URLs (a frameset).
- Secure pages cannot use the Push Displayed Page feature the first time. The URLs must be entered manually or from the pull-down menu. You can use Push Displayed Page after the initial push — if the pages remain secure.
- The page push component does not circumvent security restrictions. If an agent or customer pushes a page that is password-protected, the customer or agent must also enter a password to access that same page. The pages are never actually pushed. Each browser pulls the pages independently off the other's browser.
- Collaborative surfing is not supported.

To add URLs for page push

- 1 Log on to the Symposium Web Center Portal Administrator.
- 2 In the Symposium Web Center Portal Administrator window, double-click Web Collaboration.
- 3 The Web Communication Manager logon page appears.
- 4 Enter your user ID and password. The default userid is "SysAdmin," and the default password is "Nortel."
- 5 On the Web Communication Manager Administration page, click Page Push Admin Page.
- 6 Click Submit.

Result: The Administration : Page Push page appears.



- 7 From the Choose a Skillset drop-down list, choose a skillset.

- 8 If necessary, scroll to view the Add new URL section.
- 9 In the Enter new URL box, type the URL you want to add.
- 10 In the URL Description box, type a short description of the page. The description should be one line and no more than 64 characters long.
Note: Symposium Web Center Portal does not check for duplicate URL descriptions.
- 11 If you want to preview the page or test that you have entered the URL correctly, click the Preview icon located below the URL Description box.
Result: The page opens in a separate browser window.
- 12 Click the Save icon located below the URL Description box.
Result: The URL is added to the list of Available URLs.

To select a URL and associate a skillset with it

- 1 In the list of Available URLs at the top of the Page Push URL Administration page, click the desired URL.
Result: The description of the page appears in the URL Description box.
- 2 To preview the selected page, click the Preview icon.
Result: The page opens in a separate browser window.
- 3 From the Choose Skillset menu, select the skillset you want to associate with the URL.
- 4 Click Active  to move the URL to the list of Active URLs.
- 5 Click the Save icon located below the Available URLs box.
- 6 If you want to associate another skillset with the URL, repeat steps 3 to 5.
Note: URLs cannot be changed. If a URL is incorrect, you must delete it, add it again, and associate the appropriate skillset(s) to it.

To remove a URL from the list of active URLs

- 1 On the Administration: Page Push page, choose the skillset to which the URL is associated.
Note: The Skillset may be associated with more than one URL.
- 2 In the Active URLs list, select the URL you want to remove.

- 3 Click the Move selected URL icon to move the selected URL to the list of Available URLs.
- 4 Click the Save icon.

Result: The URL is moved from the Active URLs list to the list of Available URLs.

To delete a URL

ATTENTION

A URL may be associated with more than one skillset. When you delete a URL, you remove it from all skillsets to which it is associated. If you want to remove the URL from only one skillset, remove it from the list of active URLs for the desired skillset, but do not delete the URL.

- 1 On the Page Push Administration page, in the Available URLs list, select the URL you want to delete.
- 2 Click Delete.

Sharing forms

Introduction

Agents can help customers fill out web-based forms downloaded from a Symposium Web Center Portal site.

Sharing forms

Form Sharing is bidirectional. The agent or customer pushes a form to the browser of the person who he or she wants to help fill out the form. After the initial push, the agent and customer fill out the relevant parts of the form and click the Form Share icon to send the form back and forth until the form is complete. Then the end user submits the form.

Agents and end users must coordinate with each other (for example, using Text Chat) to confirm that the other is ready to accept the form.

Form sharing supports all form elements, such as

- text box
- text area
- radio buttons
- password fields
- check boxes
- single selection list boxes
- multiple selection list boxes

Note: Hidden text fields are not shared.

Guidelines for sharing forms

Follow these guidelines when you want to share forms:

- You cannot share forms downloaded from another web site that does not belong to you.

- You cannot share multiple forms on a page.
- You cannot share forms that are part of a framed page.
- Instant form sharing (as soon as a form element is filled in, the other party sees the change) is not supported.
- The last change that you made is the change that appears on the form.

Sharing secure pages

For security, Symposium Web Center Portal Release 3.0 Web Communication Manager only allows you to share forms downloaded from the Symposium Web Center Portal Release 3.0 External Web server.

You can share secure forms with Symposium Web Center Portal; however, you must type the URL of the secure form in the URL box, and then click the Page Push icon. When you push a secure form, the control frame changes to a secure version. The security icon in the Symposium Web Center Portal Web Communication Manager window indicates whether the form that currently appears is secure.

Configuring Web On Hold

Introduction

Web On Hold is a sequence of URLs that are presented automatically to a customer's browser while he or she is waiting for an agent for Text Chat.

Web On Hold administration allows you to select URLs for a specific skillset, and to define how long each URL appears, and whether the URLs will play through once or be repeated.

Guidelines for Web On Hold

Follow these guidelines for Web On Hold:

- Web On Hold URLs can include multimedia formats, such as video clips (Quick Time) or audio files (MPEG3). However, the customer's browser must be capable of playing these formats. Any plug-ins needed to execute multimedia files are the responsibility of the customer.
- Web On Hold pages should not be framebusters. A framebuster is a page that checks whether the web page is inside a frame and, if so, reloads the page in a frameless window.
- You can create one Web On Hold sequence for each skillset.
- There is no limit to the number of URLs selected for a sequence, but Nortel Networks recommends that you use no more than five URLs. You can define one sequence for a skillset. If you define more than one URL for the sequence and choose to repeat the sequence, ensure that these URLs do not have links to other web pages as these links may not be supported.

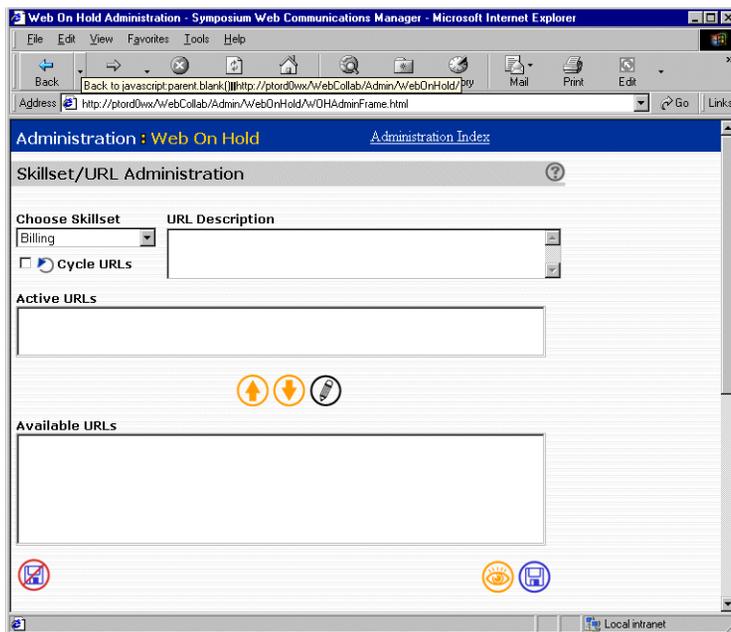
To add new URLs for Web On Hold

- 1 Log on to the Symposium Web Center Portal Administrator.
- 2 In the Symposium Web Center Portal Administrator window, double-click Web Collaboration.

Result: The Web Communication Manager logon page appears.

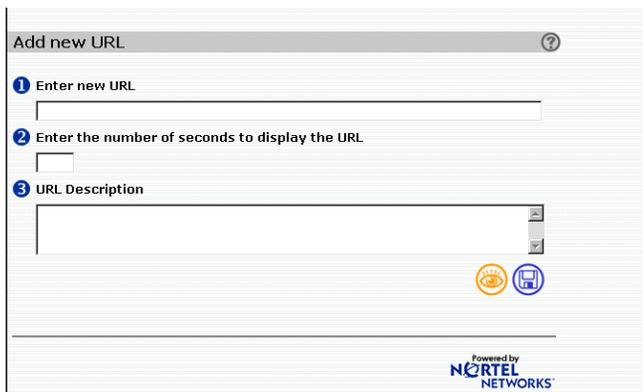
- 3 Enter your user ID and password. The default user ID is "SysAdmin," and the default password is "Nortel."
- 4 Click WebOnHold Admin page.

Result: The Administration : Web On Hold page appears.



- 5 If necessary, scroll down to view the Add new URL section.

Result: The Add new URL section appears.



- 6 In the Enter new URL box, type the URL you want to add.
- 7 In the Enter the number of seconds to display the URL box, type the number of seconds that you want the URL you chose to display to the customer.
- 8 In the URL Description box, type a description of the page.
- 9 If you want to preview the page or test that you entered the URL correctly, click the Preview icon, located below the URL Description box.

Result: The page opens in a separate browser window.

- 10 Click the Save icon.

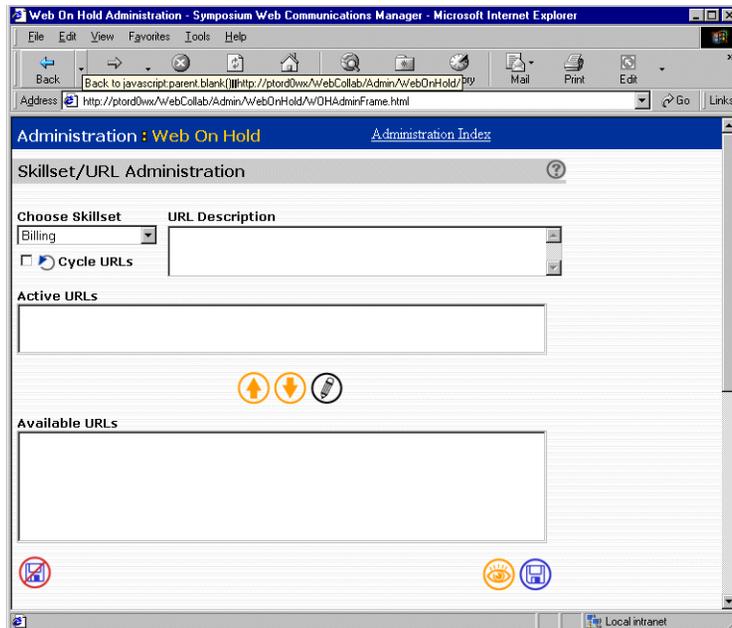
Result: The URL is added to the list of Available URLs.

To select a URL sequence and associate a skillset with it

ATTENTION

Be sure to select the URLs in the order you want them to appear in the Web On Hold sequence.

- 1 On the Administration : Web On Hold page, from the Choose Skillset drop-down list, select the skillset you want to associate with the URL sequence.



- 2 In the list of Available URLs, select the first URL to appear in the sequence.
Result: The description of the page appears in the URL Description box.
- 3 To preview the selected page, click the Preview icon.
Result: The page opens in a separate browser window.
- 4 Click Active ↑ to move the URL to the list of Active URLs.
- 5 To add subsequent URLs, repeat steps 2 to 4.

- 6 If you want the Web On Hold sequence to repeat in the customer's browser until the Text Chat request is answered, click Cycle URLs.

Notes:

- If you do not select Cycle URLs, the customer's browser remains on the last URL of the sequence until the Text Chat request is answered.
 - If you only select one URL and select Cycle URLs, the same web page refreshes repeatedly.
- 7 Click the Save icon.

To change a URL sequence

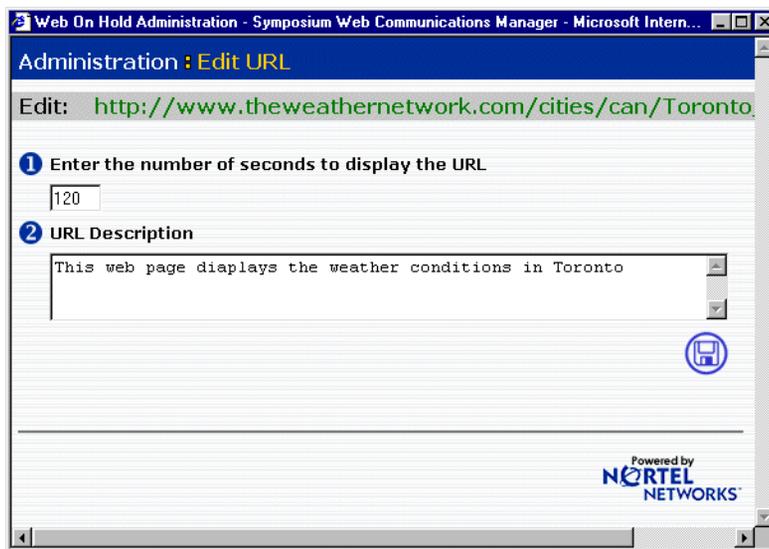
- 1 On the Administration : Web On Hold page, from the Choose Skillset menu, select the skillset of the Web On Hold sequence you want to change.
 - 2 Do one of the following:
 - In the Active URLs box, select a URL that you want to remove from the sequence, and then click Available  .
Result: The URL is moved from the Active URLs list to the list of Available URLs.
 - In the Available URLs box, select a URL that you want to include in the sequence, and then click Active  .
Result: The URL is moved from the Available URLs list to the list of Active URLs.
- Tip:** The easiest way to change a URL sequence is to move all Active URLs to the list of Available URLs, and then move them back to the Active URLs in the correct sequence.
- 3 Click the Save icon.

To edit a URL

- 1 If the URL you need to edit is in the active URL list, select the skillset and URL, and then move the URL to the list of Available URLs.
- 2 In the Available URLs list, select the URL you want to change.

- 3 Click the Edit the selected URL icon.

Result: The Administration : Edit URL page appears.



- 4 Make the required changes, and then click the Save icon.

To delete a URL

- 1 If the URL you want to delete is an active URL, select the skillset and URL, and then move the URL to the list of Available URLs.
- 2 In the Available URLs list, select the URL you want to delete.



CAUTION

Risk of losing data

When you delete a URL, you delete that URL for every skillset globally.

- 3 Click the Delete icon.

Configuring Click Stream Tracking

Introduction

When a customer browses the web site, Click Stream Tracking compares the browsed URL with a set of predefined URLs. If it matches, Click Stream Tracking saves the matching URL, its description, the URL page's title, and the time it was tracked to a temporary log file.

If the customer opens a customer service page, fills out a web form, and submits a request, the tracking information and the request are saved in the Symposium Web Center Portal database.

Click Stream Tracking administration allows you to turn the tracking on and off, and define the URLs that are included in the tracking.

Guidelines for Click Stream Tracking

Follow these guidelines for Click Stream Tracking:

- You can only track pages that are located on the Web Communication Manager server.
- Cookies must be enabled on the customer's web browser. For more information about cookies, refer to your Internet Explorer documentation.
- Keyword tracking and real-time tracking are not supported.

To turn Click Stream Tracking on

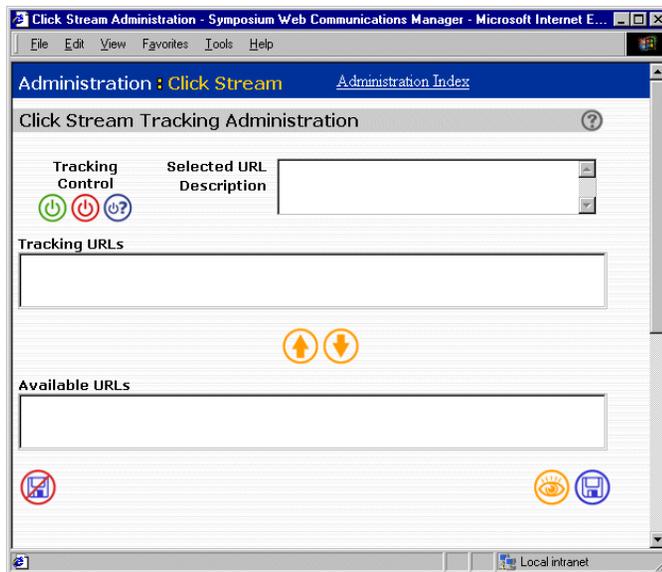
- 1 Log on to the Symposium Web Center Portal Administrator.
- 2 In the Symposium Web Center Portal Administrator window, double-click Web Collaboration.

Result: The Web Communication Manager logon page appears.

- 3 Enter your user ID and password. The default user ID is "SysAdmin," and the default password is "Nortel."

- 4 Double-click the Click Stream Admin page.

Result: The Administration : Click Stream page appears.



- 5 Select the URLs you want to track in the Available URLs list, and then move them to the Tracking URLs list.
- 6 Click the green Tracking Control On icon  to track the selected URLs.
- 7 Click the Save icon.

To turn the tracking control off

- 1 On the Web Communication Manager Administration page, double-click Click Stream Admin Page.

Result: The Click Stream Administration page appears.

- 2 Click the red Tracking Control Off icon  to stop tracking the selected URLs.
- 3 Click the Save icon.

To view the status of the Click Stream Tracking

On the Administration: Click Stream page, click the blue Tracking Control Status icon.

Result: The Click Stream Tracking Status window opens and displays the status of click stream (on or off).

To add a new URL for Click Stream Tracking

- 1 On the Administration: Click Stream page, if necessary, scroll to the Add new URL to Available URLs list section.
- 2 In the Enter new URL box, type the URL.
- 3 In the URL Description box, type a description of the page.
- 4 If you want to preview the page or test that you have entered the URL correctly, click the Preview icon, located below the URL Description box.

Result: The page opens in a separate browser window.

- 5 Click the Save icon.

Result: The URL is added to the list of Available URLs.

To select URLs for Click Stream Tracking

- 1 In the Available URLs box in the Click Stream Administration page, click the desired URL.

Result: A description of the page appears in the URL Description box.

- 2 To preview the selected page, click the Preview icon.

Result: The page opens in a separate browser window.

- 3 Move the URL to the list of Tracking URLs.
- 4 Repeat steps 1 to 3 for each URL that you want to add for Click Stream Tracking.
- 5 Click the Save icon.

To remove a URL from the list of Tracking URLs

- 1 In the list of Available URLs on the Administration: Click Stream page, click the URL you want to remove.
- 2 Click the Available icon.
Result: The URL moves from the Tracking URLs list to the list of Available URLs.
- 3 Click Save.

To delete a URL

- 1 If the URL you want to delete is in the list of Tracking URLs, select the URL and move it to the list of Available URLs.
- 2 In the list of Available URLs, select the URL you want to delete.
- 3 Click the Delete icon.

Implementing password security for encryption administration

Introduction

You must implement password security when you require security for encryption administration. This section provides procedures to set up password security for encryption administration.

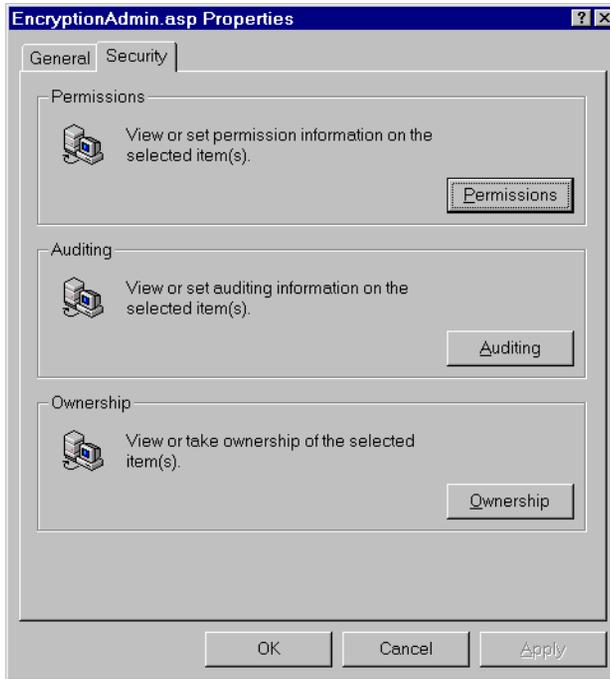
The Encryption Administration tool allows you to change the database passwords for the Agent Interface and Web Communication Manager components. It encrypts passwords for plain text .ini files.

To set up passwords for encryption administration

You set up passwords for encryption administration on the server on which you installed the Administrator.

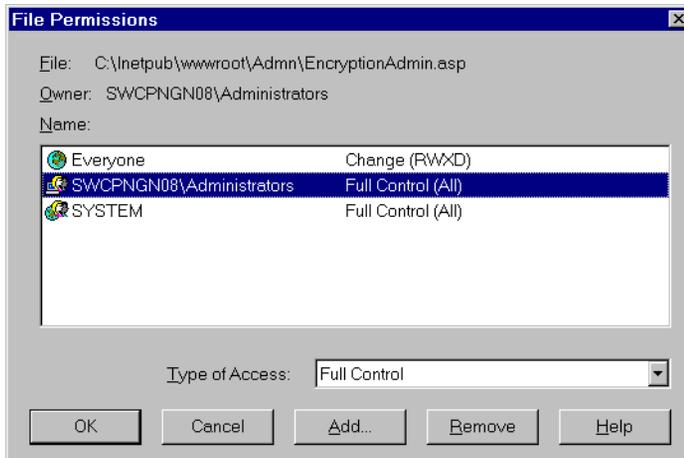
- 1 On the computer where you installed the Agent Interface component, navigate to the `..\inetPub\wwwroot\Admn` directory.
- 2 Right-click `EncryptionAdmin.asp`, and then click `Properties`.

3 Click the Security tab.



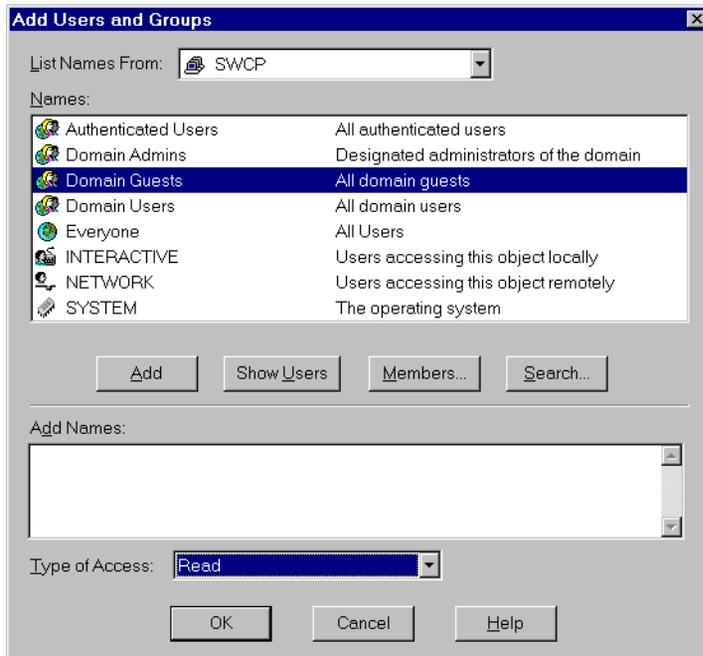
4 Click Permissions.

Result: The File Permissions window appears.



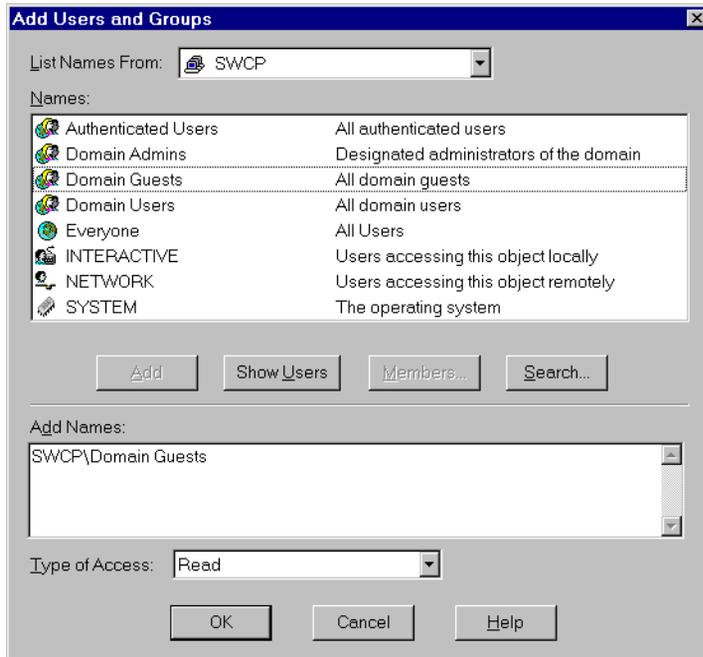
- 5 Remove any existing users (other than Administrator), if required.
 - a. Select a user, and then click Remove.
- 6 Add users who require access to the encryption administration.
 - a. Click Add.

Result: The Add Users and Groups window appears.



- b. From the list of names, select a user.
- c. From the Type of Access drop-down list, select Read, and then click Add.

Result: The name of the user or group appears in the Add Names box.



- d. Repeat steps a to c for each user you want to add.
- 7 Click OK twice.

To obtain an encrypted password

- 1 Log on to the Symposium Web Center Portal Administrator.
- 2 Double-click Encryption Administration.
- 3 Type the password that you want to encrypt, and then click Save.

Result: The encrypted password appears in the Encrypted password box. You can use this password to access information in the database.

Changing the Web Communication Manager timers

Introduction

There are three timers that affect how the Web Communication Manager works:

- **Polling timeout** — The system checks the connections between agents and customers every 30 seconds. Therefore, agents are not aware that a customer has quit a connection until the polling timeout takes place.
If the customer leaves Web On Hold, clicks to another page, and then returns within the polling timer, Web On Hold resumes. However, if there is no response after the polling timeout, then the Web Communication Manager shuts down the session and removes the session ID and transaction ID from its memory.
- **Web On Hold timeout** — If an Agent does not answer a customer's request for a web communication session within the defined waiting time (the default is 10 minutes), then the transaction is canceled.
- **Connection timeout** — This is the longest time that the agent and customer session can be open with no activity. The default is 5 minutes. If the connection times out, an alert message appears on both the agent's and customer's browser stating "Connection Closed."

If a timer times out, the event is added to the log file found at <WebCollab install Dir>/Logs. The default file name is webCollab TraceLog.txt. You can use the trace admin utility to change the directory or the file name of the log file. All timeouts appear in this file.

To change the Web Communication Manager timer defaults

- 1 Use Windows NT Explorer to navigate to the WebCollab\Config directory.
- 2 Open the options.ini file.

Result: The entries for the Web Communication Manager timer look like this:

```
# During Web On Hold if user closes Web On Hold window or goes  
to another page
```

```
pollingTimeout=60

# How long (in seconds) a customer waits for an agent in Web
On Hold
webOnHoldTimeout=600

# On a connected transaction how long an agent or customer are
allowed to remain idle
# Web chat session will timeout at end of this inactivity
period
connectionTimeout=300
```

- 3 Change the values for `pollingTimeout`, `webOnHoldTimeout`, or `connectionTimeout` as needed.

Note: All time units are expressed in seconds.

- 4 Save the file, and then exit.

Note: For these changes to take effect, the administrator must restart the JRun server.

To restart the JRun server

- 1 From the Start Menu, choose Programs → Macromedia JRun 4 → JRun Management Console.
- 2 Log on to the JRun Management Console.
- 3 On the Management Console page, click JRun Default Server.
- 4 Click Restart Server.

Result: The JRun server starts.

Changing the default values for the Agent Interface

Introduction

The file Userdef.vbs contains the following default values for the agent interface:

Feature	Default value
■ auto refresh interval	15 minutes
■ number of transactions downloaded when agent logs on	50
■ is the agent allowed to download all transactions?	No
■ maximum number of transactions that can be downloaded when a range is requested	50
■ is the agent allowed to change the refresh time?	Yes

Note: The default is for the Automatic Refresh to be turned off. Nortel Networks recommends that you do not use Automatic Refresh or that you use it sparingly. Frequent refreshing uses system resources and can cause network congestion and decrease server performance.

To change the default values

- 1 Use the text editor to navigate to the default directory.
- 2 Open the UserDefs.vbs file.
- 3 Change the values as required.
- 4 Save the file.

Chapter 8

Using real-time displays and reports

In this chapter

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About real-time displays and reports

Introduction

Real-time displays provide up-to-date statistics about the current status of calls, resources, and agents in your call center. By monitoring the ongoing performance of your system, you can maximize the effectiveness of your call center. The report gets its data from the customer, trans, skillset, and user_details tables in the database. For more information about these tables, see “Database administration” on page 509.

You can access the reports through the Administrator window. You must log on to Symposium Web Center Portal as an administrator or supervisor to view the reports and real-time displays.

You can view real-time displays for the following statistics:

- Agents available
- Agents in service
- New Reply calls waiting
- Open calls waiting
- Pending calls waiting
- Max wait time
- Average handle time

Thresholds

To improve the impact of your real-time displays, Symposium Web Center Portal allows you to set threshold values for eight quality service indicators, such as the longest waiting time.

Thresholds warn supervisors and administrators when intervention is required (for example, if a skillset requires additional agents). You can define thresholds for statistics in real-time displays. The thresholds specify the values for the low and high ends of the normal range.

For each threshold, you can use colors to identify whether the value of the

statistics is less than the low value, between the low and the high value, or greater than the high value.

If you do not set threshold values, you do not see them as part of your real-time displays.

For example, you can set a service threshold to determine whether agents are responding promptly to requests. Your real-time display changes color to alert you whenever a value exceeds the threshold level that you have set.

Real-time display thresholds example

Here is an example of how thresholds work with displays:

Doris Kramer, the supervisor of a call center, wants to make sure that confirmed orders that come in from the Internet are handled promptly and ahead of requests for information.

Two agents are assigned to handle all messages that are directed by Symposium Web Center Portal to the skillset called NetOrder. To maintain good service, Doris wants to know whenever there are more than 30 unfilled orders that have come in from the Web.

Doris sets a threshold of 30 for the Pending Calls Waiting statistic. After this change, the real-time display on Doris' screen changes color to alert her that orders are piling up. She investigates why the normal high level of efficiency has fallen off and takes measures to reduce the backlog on orders. One of the measures she takes is to assign an additional agent to the NetOrder skillset.

Who can use real-time displays and reports

Administrators and supervisors can view real-time displays and reports. Supervisors and administrators can set thresholds for real-time displays, and run, view, and print reports.

Viewing real-time displays

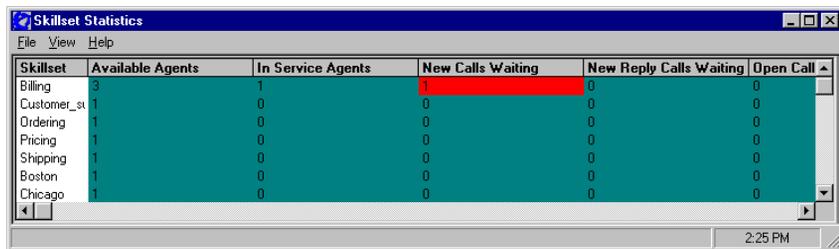
Introduction

This section provides information about viewing real-time displays. It also provides instructions on how to use thresholds for the real-time displays.

To view real-time displays

- 1 In the Symposium Web Center Portal Administration window, click the plus sign (+) next to Symposium Web Center Portal.
- 2 Click the plus sign (+) next to Reports & Displays.
- 3 Click the plus sign (+) next to RTD.
- 4 Double-click Real Time Skillset Statistics.

Result: The Skillset Statistics window appears.



Skillset	Available Agents	In Service Agents	New Calls Waiting	New Reply Calls Waiting	Open Call
Billing	3	1	1	0	0
Customer_s	1	0	0	0	0
Ordering	1	0	0	0	0
Pricing	1	0	0	0	0
Shipping	1	0	0	0	0
Boston	1	0	0	0	0
Chicago	1	0	0	0	0

To set the thresholds for a real-time display

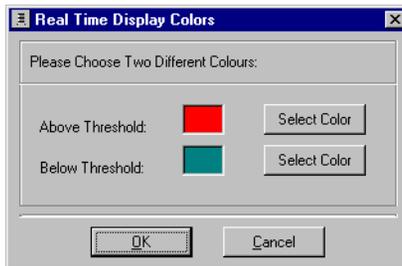
- 1 In the Symposium Web Center Portal Administration window, click the plus sign (+) next to Symposium Web Center Portal.
- 2 Click the plus sign (+) next to System Administration.
- 3 Double-click Skillsets.
- 4 In the skillset names box, select the skillset for which you are setting a threshold.
- 5 Click the Properties tab.

- 6 In the Threshold details box, enter the threshold value for the level of service. For example, if you enter a value of 5 in the Agents Available box, you indicate that you want the real-time display to change color when fewer than five agents are available for the selected skillset.
- 7 Click OK.

To set the threshold colors

- 1 In the Symposium Web Center Portal Administration window, click the plus sign (+) next to Symposium Web Center Portal.
- 2 Click the plus sign (+) next to Reports & Displays.
- 3 Click the plus sign (+) next to RTD.
- 4 Double-click Real Time Display Colors.

Result: The Real Time Display Colors window appears.



- 5 Click Select Color to choose the colors you want to use in the real-time displays when values fall below the lower threshold and above the upper threshold.
- 6 Click OK.

Running and printing reports

Introduction

Reports help you to monitor your system performance by providing information on system activity. You can use reports to

- analyze productivity and efficiency
- assess staffing requirements
- identify trends
- identify seasonal behavior
- forecast future activity
- enhance service

Forecasting is especially helpful for predicting changes in call center traffic. For example, if a retailer's annual summer sale traditionally brings higher call volumes, detailed reports can help the center prepare for future sales. Similarly, tracking seasonal business trends makes it easier to manage staffing requirements from one year to the next.

You can use the predefined standard reports — Skillset Real Time Statistics, Transactions By Agent, or Transactions By Skillset. You can also create your own customized reports using Crystal Reports 8.0.

To run and view the Skillset Real Time Statistics

- 1 Click the plus sign (+) beside Symposium Web Center Portal.
- 2 Click the plus sign (+) beside Reports and Displays.
- 3 Click the plus sign (+) beside Reports.
- 4 Click Skillset Real Time Statistics.

Result: The Skillset Real Time Statistic report appears. For more information, refer to “Skillset Real Time Statistics report” on page 308.

To run and view the Transactions By Agent report

- 1 Click the plus sign (+) beside Symposium Web Center Portal.
- 2 Click the plus sign (+) beside Reports and Displays.
- 3 Click Transactions By Agent.

Result: The Run Report window appears.

The screenshot shows a dialog box titled "Run Report". It is divided into two main sections. The top section, "Data will be extracted for the following period:", contains "Start Date:" and "End date:" fields. Each field has a "Monday" dropdown, a month dropdown (February for start, March for end), a day dropdown (5 for both), and a year text box (2001 for both). The bottom section, "Selection Criteria:", contains two list boxes: "Selected Agents" (with "a1, a1") and "Available Agents" (with "a2, a2", "Three, Agent", and "Two, Agent"). Between these boxes are "<< Add" and "Remove >>" buttons. At the bottom of the dialog are "Run Report" and "Cancel" buttons.

- 4 Select the start date of the report.
- 5 Select the end date of the report.
- 6 Add or remove the names of the agents to the Selected Agents box.

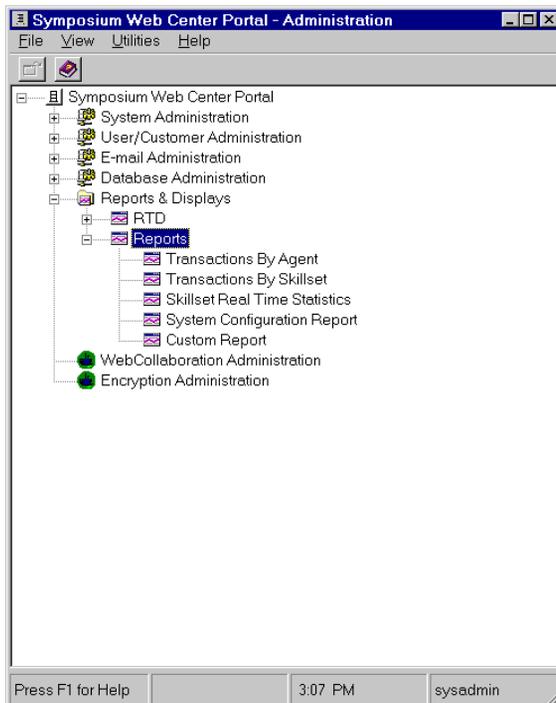
Note: If you do not select any agents on the Run Report window, the report will run for all of the agents.

- 7 Click Run Report.

Result: The Transaction By Agent report appears. For more information, refer to "Transactions By Agent report" on page 311. You can now print or save the report.

To run and view the Transactions By Skillset report

- 1 Click the plus sign (+) beside Symposium Web Center Portal.
- 2 Click the plus sign (+) beside Reports and Displays.
- 3 Click the plus sign (+) beside Reports.



- 4 Click Transactions By Skillset.

Result: The Run Report window appears.

- 5 Select the start date of the report.
- 6 Select the end date of the report.
- 7 Add or remove the names of the skillsets to the Selected Skillsets box.

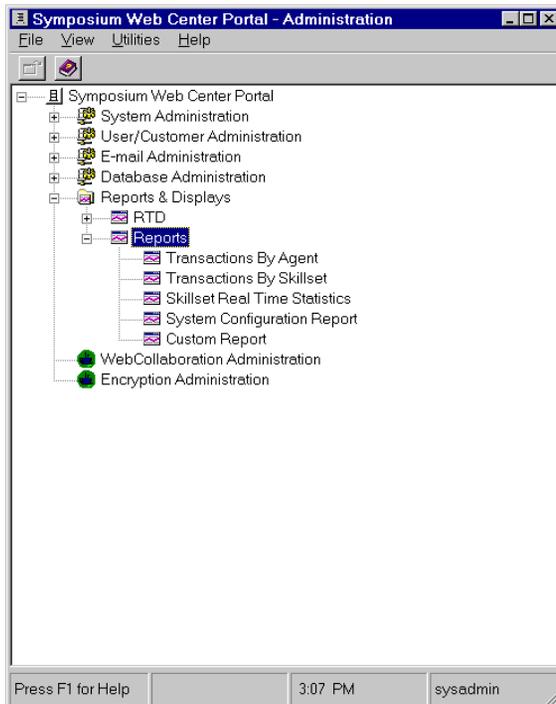
Note: If you do not add any skillsets to the Selected Skillsets box, the report will run for all of the skillsets.

8 Click Run Report.

Result: The Transactions By Skillset report appears. For more information, refer to “Transactions By Skillset report” on page 314. You can now print or save the report.

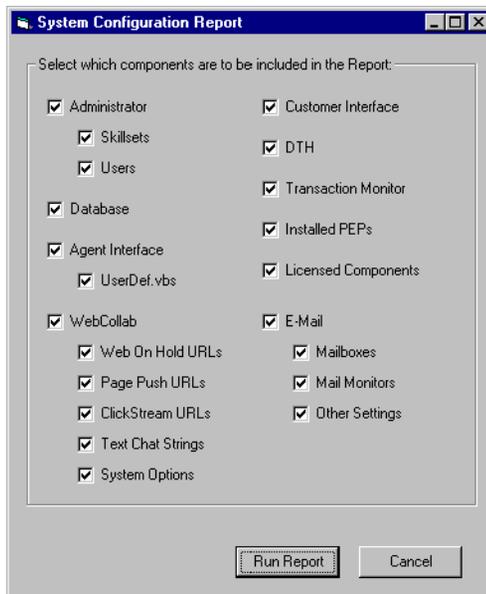
To run and view the System Configuration Report

- 1 Click the plus sign (+) beside Symposium Web Center Portal.
- 2 Click the plus sign (+) beside Reports and Displays.
- 3 Click the plus sign (+) beside Reports.



4 Double-click System Configuration Report.

Result: The System Configuration Report window appears.



5 Select the components to appear in the report.

6 Click Run Report.

Result: The System Configuration Report appears. For more information, refer to “System Configuration report” on page 317.

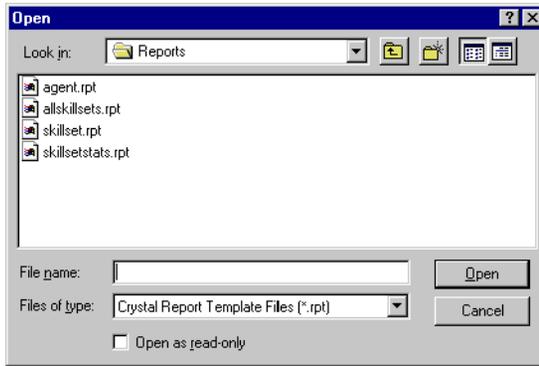
Note: If the system encounters an error while creating the report, an error message is printed on the report.

To run and view a Custom Report

- 1 Click the plus sign (+) beside Symposium Web Center Portal.
- 2 Click the plus sign (+) beside Reports and Displays.
- 3 Click the plus sign (+) beside Reports.

- 4 Double-click Custom Report.

Result: The Open window appears.



- 5 Select the name of the custom report in the Open dialog box.
- 6 Click Open.

Result: The Custom Report appears.

To print reports

- 1 Run the report that you want to print.
- 2 Click the Print icon at the top of the window.

Note: If you do not have a printer configured for the computer, the Print icon is grayed out.
- 3 Select the printer, page range to print, and number of copies.
- 4 Click OK.

Skillset Real Time Statistics report

Introduction

The Skillset Real Time Statistics report provides a snapshot of the current status of calls, resources, and agents in the call center.

For more information about running this report, refer to “To run and view the Skillset Real Time Statistics” on page 302.

Field descriptions

Name	Type	Description
Company Name	varchar (20)	The name of the company.
Site Id	varchar (10)	A unique identifier for the Symposium Web Center Portal site.
Table Names		The tables from the database that were used to create the report.
Reported On		The exact time the data was retrieved.
Agents Available	int	The total number of agents for the skillset.
Agents in Service	int	The number of agents currently logged on.
New	int	The number of new transactions waiting.
Open	int	The number of open transactions.

Name	Type	Description
Pending	int	The number of pending transactions.
Max Wait Time	int	The value of the transaction with the longest wait time for this skillset.
Average Handle Time	int	The average time to handle the transactions in this skillset.

Skillset Real Time Statistics

Site ID: Nortel
 Company Name: Nortel Networks
 Table Name: skillset_statistics
 Reported On: March 01, 2001 11:13:59 AM

	Transactions			Average Handle Time	Max Wait Time	Agents	
	New	Open	Pending			Available	In Service
	45	0	4	GRAND TOTAL	631:29:47	16	2
#%<<>	0	0	0	00:00:40	00:13:10	1	0
Billing	0	0	2	00:01:21	00:00:00	4	1
Boston	0	0	0	00:00:00	00:00:00	0	0
Chicago	0	0	0	00:00:00	00:00:00	0	0
Customer_Info	0	0	0	00:00:00	00:00:00	1	0
Customer_support	12	0	1	00:00:10	631:29:47	3	1
Ordering	0	0	0	00:00:00	00:00:00	2	0
Pricing	0	0	0	00:00:00	00:00:00	0	0
San Francisco	0	0	0	00:00:00	00:00:00	0	0
Shipping	33	0	1	00:01:00	408:46:05	3	0
d'g	0	0	0	00:00:00	00:00:00	0	0
double quote	0	0	0	00:00:00	00:00:00	1	0
single quote	0	0	0	00:00:00	00:00:00	1	0

Transactions By Agent report

Introduction

The Transactions By Agent report allows you to monitor each agent's work. The report includes statistical information, such as the total number of transactions, the average number of transactions per agent, the average wait duration, the average number of transactions per agent, the total number of web and e-mail transactions, and the average open duration per transaction.

For more information about running this report, refer to "To run and view the Transactions By Agent report" on page 303.

Field descriptions

Name	Type	Description
Company Name	varchar (20)	The name of the company.
Site Id	varchar (10)	A unique identifier for the Symposium Web Center Portal site.
Table Names		The tables from the database that were used to create the report.
Report Period		The defined period of time for the collection of data for the report.
Date	Date	The date (mm/dd/yyyy) on which the transactions arrived in the database.
Skillset	varchar (50)	The skillset assigned to the transaction.

Name	Type	Description
Transaction ID	Numeric (12)	The identification number assigned to the transaction.
Transaction source		Displays either Web or E-mail, depending on how the transaction originated.
Preferred Callback Method	tinyint/string	The method by which the customer would like a response.
Status	tinyint/string	The status of the transaction (new, open, pending, closed).
Customer Name	varchar (50)+ varchar (100)	The first and last name of the customer.
Arrival Time	Date/Time	The time the transaction arrived in the database.
Open Time	Date/Time	The exact date and time that the transaction was accepted by an agent.
Wait Duration	Date/Time	The length of time between the Arrival Time and the Open Time.
Open Duration	Numeric (18)	The length of time a transaction's status is Open.

Transactions By Agent

Site ID: Nortel
 Company Name: Nortel Networks
 Table Names: customer_trans, skillset, user_details
 Report Interval: May 21, 2001 - May 25, 2001

GRAND TOTAL
 Total Number of Agents: 2 Average Number of Transactions Per Agent: 9.00 Average Open Duration Per Transaction: 00:02:30
 Total Number of Transactions: 19 Total Web Transactions: 18 Total E-Mail Transactions: 1 Average Wait Duration Per Transaction: 02:25:58

Date	Skillset	Transaction ID	Transaction Source	Preferred Source	Callback Media	Status	Customer Name	Arrival Time	Open Time	Wait Duration	Open Duration
------	----------	----------------	--------------------	------------------	----------------	--------	---------------	--------------	-----------	---------------	---------------

Agent Name & ID: as1 s1, 3
 Total Number of Transactions: 2 Average Wait Duration Per Transaction: 00:00:00 Average Open Duration Per Transaction: 00:00:04
 Number of Web Transactions: 2 Number of E-Mail Transactions: 0

05/25/2001
 Chicago Web Phone Closed asdfasdf 10:43:40 05/25/2001 10:40:50 00:00:00 00:00:03
 Billing Web Phone Closed asdfasdf 10:46:33 05/25/2001 10:40:36 00:00:00 00:00:04

Agent Name & ID: rr, 1,000,004
 Total Number of Transactions: 17 Average Wait Duration Per Transaction: 02:47:34 Average Open Duration Per Transaction: 00:03:10
 Number of Web Transactions: 16 Number of E-Mail Transactions: 1

05/24/2001
 Billing Web Phone Pending telephony telephony 14:17:21 05/24/2001 16:36:22 02:19:01 00:08:36
 Customer_support Web Phone Pending bob bob 15:09:22 05/24/2001 16:36:10 01:26:48 00:18:42
 Customer_support Web Chat Closed bob bob 15:51:06 05/25/2001 11:09:29 43:18:23 00:24:41
 Billing E-mail E-Mail Pending C Lab3 16:12:03 05/24/2001 16:36:29 00:24:26 00:00:06

05/25/2001
 Billing Web Phone Closed bob bob 11:11:43 05/25/2001 11:09:46 00:00:00 00:00:08
 Billing Web Phone Pending bob bob 11:12:05 05/25/2001 11:06:10 00:00:00 00:00:21
 Billing Web Phone Pending bob bob 11:12:10 05/25/2001 11:06:34 00:00:00 00:00:11
 Customer_support Web Phone Closed bob bob 11:12:56 05/25/2001 11:09:24 00:00:00 00:00:05
 Billing Web Phone Closed bob bob 11:13:00 05/25/2001 11:09:41 00:00:00 00:00:07
 Billing Web Phone Closed bob bob 11:13:46 05/25/2001 11:09:09 00:00:00 00:00:03
 Billing Web Phone Closed bob bob 11:14:04 05/25/2001 11:09:04 00:00:00 00:00:09
 Customer_support Web Phone Closed bob bob 11:14:08 05/25/2001 11:09:20 00:00:00 00:00:10

Program File: \\nortel\work\symposium\WebCenter\portal\dm\k\table\ReportByAgent.tpt
 Printed By: sysadmin 05/25/2001 11:52:38 AM
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 Symposium Web Center Portal Release 3.0

Transactions By Skillset report

Introduction

The Transactions By Skillset scheduled report allows you to monitor each agent's work for each skillset. The report includes statistical information, such as the total number of transactions, the average number of transactions per skillset, the average wait time per transaction, the total number of web and e-mail transactions, and the average open time per transaction.

For more information about running this report, refer to "To run and view the Transactions By Skillset report" on page 304.

Field descriptions

Name	Type	Description
Company Name	varchar (20)	The name of the company.
Site Id	varchar (10)	A unique identifier for the Symposium Web Center Portal site.
Table Names		The tables from the database that were used to create the report.
Report Period		The defined period of time for the collection of data for the report.
Date	Date	The date (mm/dd/yyyy) on which the transactions arrived in the database.
Agent Name		The first and last name of the agent.

Name	Type	Description
Transaction ID	Numeric (12)	The identification number assigned to the transaction.
Preferred Callback Method	tinyint/string	The method by which the customer would like a response.
Transaction source		Displays either Web or E-mail, depending on how the transaction originated.
Status	tinyint/string	The status of the transaction (new, open, pending, closed).
Customer Name	tinyint/string	The first and last name of the customer.
Arrival Time	Date/Time	The time the transaction arrived in the database.
Open Time	Date/Time	The exact date and time that the transaction was accepted by an agent.
Wait Duration	Date/Time	The length of time between the Arrival Time and the Open Time.
Open Duration	Numeric (12)	The length of time a transaction's status is Open.

Transactions By Skillset

Site ID: Nortel
 Company Name: Nortel Networks
 Table Names: customer, trans, skillset, user_details
 Report Interval: May 22, 2001 - May 25, 2001

GRAND TOTAL
 Total Number of Skillsets: 2 Average Number of Transactions Per Skillset: 9.00 Average Open Duration Per Transaction: 00:02:60
 Total Number of Transactions: 18 Total Web Transactions: 17 Total E-Mail Transactions: 1 Average Wait Duration Per Transaction: 02:38:15

Date	Agent Name	Transaction ID	Transaction Source	Preferred Source	Status	Customer Name	Arrival Time	Open Time	Wait Duration	Open Duration
------	------------	----------------	--------------------	------------------	--------	---------------	--------------	-----------	---------------	---------------

Skillset Name & ID : Billing , 2
 Total Number of Transactions: 11 Average Wait Duration Per Transaction: 00:14:52 Average Open Duration Per Transaction: 00:00:53
 Number of Web Transactions: 10 Number of E-Mail Transactions: 1

5/24/2001	rr	20,625	Web	Phone	Pending	telephony telephony	14:17:21	05/24/2001 16:36:22	02:19:01	00:00:38
	rr	20,628	E-mail	E-Mail	Pending	CLab3	16:12:03	05/24/2001 16:36:29	00:24:26	00:00:06
5/25/2001	alal	20,630	Web	Phone	Closed	asdfasdf	10:46:33	05/25/2001 10:40:36	00:00:00	00:00:04
	rr	20,631	Web	Phone	Closed	bob bob	11:11:43	05/25/2001 11:09:46	00:00:00	00:00:08
	rr	20,632	Web	Phone	Pending	bob bob	11:12:05	05/25/2001 11:06:10	00:00:00	00:00:21
	rr	20,635	Web	Phone	Closed	bob bob	11:13:00	05/25/2001 11:09:41	00:00:00	00:00:07
	rr	20,636	Web	Phone	Closed	bob bob	11:13:49	05/25/2001 11:09:39	00:00:00	00:00:03
	rr	20,637	Web	Phone	Closed	bob bob	11:14:04	05/25/2001 11:09:04	00:00:00	00:00:09
	rr	20,640	Web	Phone	Closed	bob bob	11:16:07	05/25/2001 11:10:18	00:00:00	00:00:04
	rr	20,641	Web	Phone	Closed	bob bob	11:16:39	05/25/2001 11:10:36	00:00:00	00:00:02
	rr	20,642	Web	Phone	Closed	bob bob	11:16:53	05/25/2001 11:11:07	00:00:00	00:00:03

Skillset Name & ID : Customer_support, 3
 Total Number of Transactions: 7 Average Wait Duration Per Transaction: 06:23:36 Average Open Duration Per Transaction: 00:06:19
 Number of Web Transactions: 7 Number of E-Mail Transactions: 0

5/24/2001	rr	20,626	Web	Phone	Pending	bob bob	15:09:22	05/24/2001 16:36:10	01:26:48	00:18:52
	rr	20,627	Web	Chat	Closed	bob bob	16:51:06	05/25/2001 11:09:29	43:18:23	00:24:41

C:\Program Files\Nortel\Networks\Symposium\Web Center Portal\wcm\reports\skilset.rpt
 Printed By: sysadmin 05/25/2001 11:51:43 AM
 Page 1 of 2
 Symposium Web Center Portal Release 3.0

System Configuration report

Introduction

This section provides an overview of the System Configuration report. The System Configuration report allows you to view configuration information for the following Symposium Web Center Portal components:

- Administration
- Skillsets
- Users
- Database
- Agent Interface
- UserDef.vbs settings
- Customer Interface
- Web Communication
- E-mail Manager
- DTH
- Transaction monitor
- Installed PEPs
- Component licenses

For more information about running this report, refer to “To run and view the System Configuration Report” on page 305.

Field descriptions

Name	Type	Description
Company Name	varchar (20)	The name of the company.
Site Id	varchar (10)	A unique identifier for the Symposium Web Center Portal site.
Report Period		The defined period of time for the collection of data for the report.
Date	Date	The date (mm/dd/yyyy) on which the transactions arrived in the database.
Transaction ID	Numeric (12)	The identification number assigned to the transaction.
Preferred Callback Method	tinyint/string	The method by which the customer would like a response.
Transaction source		Displays either Web or E-mail, depending on how the transaction originated.
Status	tinyint/string	The status of the transaction (new, open, pending, closed).
Customer Name	tinyint/string	The first and last name of the customer.
Arrival Time	Date/Time	The time the transaction arrived in the database.
Open Time	Date/Time	The exact date and time that the transaction was accepted by an agent.
Wait Duration	Date/Time	The length of time between the Arrival Time and the Open Time.

Name	Type	Description
Open Duration	Numeric (12)	The length of time a transaction's status is Open.

Administration fields

Field	Description
Target Directory	The root path for the Administration program files.
AUI Server Host Name	The name of Agent Interface host server. The report uses this value to connect to the Agent Interface server to retrieve the Agent Interface settings.
Database Host Name	The name of the Database server. The report uses this value to connect to the database server to retrieve settings for the database, DTH, and TxnMonitor.
Customer Server Host Name	The name of the Customer Interface server. The Report uses this value to connect to the Customer Interface server.
License Server Host Name	The name of the license server.
POP3 Server Host Name	The name of the POP3 server.
SMTP Server Host Name	The name of the SMTP server.
Base Build	The base build of the Administration component.

Skillset configuration fields

Field	Description
Skillset Name	The name of the skillset.
Assigned Agents	Lists agents assigned to the skillset.
DN	The Directory Number for the skillset.
Priority	The priority for the skillset.
Inboxes	Lists the inboxes mapped to the skillset.
Outbox	The outbox to which the skillset is mapped.
Auto-Acknowledgements: E-mails	Indicates whether incoming e-mails to the skillset are automatically acknowledged.
Auto-Acknowledgements: E-Mail Responses	Indicates whether incoming e-mails with Transaction IDs in the subject are automatically acknowledged.
Auto-Acknowledgements: Web Transactions: Telephone Callback	Indicates whether incoming web transactions with Telephone Callback requested are automatically acknowledged.
Auto-Acknowledgements: Web Transactions: E-Mail Callback	Indicates whether incoming web transactions with E-Mail Callback are automatically acknowledged.
Auto-Acknowledgements: Responses	Indicates whether web responses are automatically acknowledged.

User configuration fields

Field	Description
User Name	The user's first and last name.
Assigned Skillsets	Lists the skillsets to which the user is assigned.

Field	Description
Display Enabled	Indicates whether the display is enabled for the skillset.
Agent Id	The ID associated with the agent.
User Logon Id	The logon ID that the user uses to log on to the system.
User DN	The DN set up for the user.
Agent Class	The user's access class (Administrator, Supervisor, or Agent).
Fax Number	The fax number for the user.
E-Mail address	The e-mail address for the user.

Database configuration fields

Field	Description
Adaptive Server Name	The name of the Sybase Adaptive Server.
Database Size	The size of the database.
Host Name	The host name of the Symposium Web Center Portal server.
Customer Host Name	The host name of the External Web server.
Data Directory	The directory where Sybase stores the database.
Backup Directory	The directory where Sybase stores the database backup.
Maximum Users	The maximum number of users allowed to connect to the database at one time.

Field	Description
SQL Script Directory	The directory where the SQL Scripts are stored.
Sybase Bin Directory	The directory where Sybase program files are installed.
Sybase Path	The Sybase Path directory.
Base Build	The build number of the database component.

Agent Interface configuration fields

Field	Description
WWW Root Directory	The root directory of the Agent Interface server.
Customer Server Host Name	The host name of the External Web server.
License Server Host Name	The host name of the FlexLM License server.
Database Host Name	The host name of the Symposium Web Center Portal server.
Base Build	The build number of the Agent Interface component.

UserDef.vbs settings fields

Field	Description
Host Name	The host name of the Agent Interface server.
Auto Refresh Interval	The frequency at which the list of transactions on the agent workbook is refreshed.
Max Number of Transactions	The maximum number of transactions that can appear on the agent workbook at one time.
Specification of Auto Refresh Interval	Indicates whether the agent can change the auto refresh interval.
Specification of Max Number of Transactions	Indicates whether the agent can change the maximum number of transactions.
Auto Refresh Prompt	Indicates whether the agent is prompted before an auto refresh occurs.
Load All Transactions	Indicates whether an agent can load all transactions in his or her window.
Agent Chat Prefix	Shows the agent's name as it appears during a text chat.
Specification of Transaction Range	Indicates whether the agent can specify a range of transactions to download.

Customer Interface configuration fields

Field	Description
WWW Root Directory	The root directory of the External Web server.
Database Host Name	The host name of the Symposium Web Center Portal server.
Customer Host Name	The host name of the External Web server.

Field	Description
Base Build	The build number of the Customer Interface component.

Web Communication configuration fields

The Web Communication configuration fields include data for the following components:

- Web On Hold URL configuration
- Push Page URL configuration
- ClickStream URL configuration
- Text Chat configuration
- System Options configuration

Field	Description
Target Directory	The directory where the Web Communication Manager is installed.
WWW Root Directory	The root directory of the External Web server.
Database Host Name	The name of the Symposium Web Center Portal server.
Is Click Stream Installed	Indicates whether ClickStream Tracking is installed.
Click Stream State	Indicates whether ClickStream is active.
Base Build	The build number of the Web Communication Manager component.

Web On Hold URL configuration

Field	Description
URL	The Web On Hold URL.
HoldTime	The amount of time (in seconds) that the URL appears.
Active Skillsets	Indicates the skillset for which the URL appears.
Description	The description of the URL.

Push Page URL configuration

Field	Description
URL	The Page Push URL.
Active Skillsets	Indicates the skillset for which the URL appears.
Description	The description of the URL.

ClickStream URL configuration

Field	Description
URL	The ClickStream URL.
Active	Indicates whether the URL is being tracked.
Description	The description of the URL.

Text Chat configuration

Field	Description
Chat String Name	The name of the chat string.

Field	Description
Chat String	The chat string.

System Options configuration

Field	Description
Save Chat Log to Database	Indicates whether the contents of the chat sessions are saved in the database.
E-Mail Chat Log to Customer	Indicates whether the contents of the chat sessions are e-mailed to the customer.

E-Mail Manager configuration fields

Mailbox configuration

Field	Description
Inboxname	The name of the mailbox.
Inbound Skillset	The unique skillset that uses this mailbox as an inbox.
Outbound Skillsets	Lists all the skillsets that use this mailbox as an outbox.
Display Name	The name displayed in the From box when you send an e-mail.
Domain	The domain name for the originating e-mail.
WinNT Account	The account used to log on to the mailbox.

IMS/OMS settings

Field	Description
E-Mail Protocol	The protocol that IMS / OMS uses.
Callback Delay (IMS)	Delay between the e-mail arrival time and when it is presented to an agent.
Inbound Mail Threshold	The number of e-mails IMS processed per skillset per execution.
Customer Record Matching	Indicates whether IMS searches to see if the customer's record already exists, or if it automatically creates a new customer record.
Follow-up Responses	Indicates whether IMS creates a response for a transaction that has a transaction ID in the subject or if it creates a new transaction.
Undeliverable Strings	IMS interprets e-mail as a warning that a previous message bounced if the subject field contains one of these strings.
Auto Numbering	Indicates whether outbound e-mails include the transaction ID in the subject field.
Outbound Mail Threshold	The number of e-mails OMS processes per skillset per execution.

Other settings

Field	Description
Invalid Transaction Acknowledgement	Indicates whether an e-mail that arrives with an invalid transaction ID in the subject field is accepted as a new transaction or rejected with an auto acknowledgement.
Inbound Attachment Directory	The network path to the directory that stores the inbound attachments.

Field	Description
Outbound Attachment Directory	The network path to the directory that reads the outbound attachments.

DTH configuration fields

Field	Description
Operation Mode	Indicates whether the DTH operates 24 hours a day, or only during certain times.
Operating Time Start	The start time of the DTH if the Operation Mode of the DTH is timed.
Operating Time End	The end time of the DTH when it is finished operating if the Operation Mode is timed.
Base Build	The build number of the DTH component.
Transaction Polling Interval	The frequency at which the DTH polls the database for new transactions.
Agent Configuration	Indicates whether calls are dropped when the agent accepts a screen-pop transaction, or the call is held until the agent manually hangs up.
TSP Type	The type of Telephony Service Provider.

Transaction monitor configuration fields

Field	Description
ODBC DSN Name	The ODBC DSN that the TxnMonitor uses to connect to the database.
Open Duration Time	The time that a transaction must remain open before it is updated by the TxnMonitor.
Acquired Duration Time	The time that a transaction must remain in the Acquired state before it is updated by the TxnMonitor.
Base Build	The build number of the TxnMonitor.
Polling Interval	The frequency at which the TxnMonitor polls the database.
Acquired Update Status	The state from which transactions are updated to Acquired.
Log No Update Activity	

Installed PEPs fields

Field	Description
Server Name	The name of the server.
PEPs	Lists the PEPs installed on the server.
Installed On	The date and time the PEP was installed on the server.

Component licenses

The Component licenses section of the System Configuration report lists the Symposium Web Center Portal components, which are currently licensed.

System Configuration Report

Site ID: North
 Company Name: Nortel Networks
 Reported On: September 17, 2001 2:48:52 PM

Administrator Configuration

Target Directory: C:\Program Files\Nortel Networks\Symposium\WebCenterPortal\adm\etabror
 All Server Host Name: swis_dbase
 Database Host Name: swis_dbase
 Custom Server Host Name: ptord03
 License Server Host Name: ptord03m
 POP3 Server Host Name: swis-exchange
 SMTP Server Host Name: swis-exchange
 Base Billing: 45

Skillset Configuration:

Billing	Assigned Agents	DN	Priority	Inboxes	Outbox	Emails	Auto Acknowledgments		
							E-Mail Responses	Tel. Callback	E-Mail Callback
a1 a1		3750	1	Billing_lab1	Billing_lab1	Y	Y	Y	Y
Boston									
No Agents Assigned									
				N/A	N/A	N	N	N	N
Chicago									
No Agents Assigned									
				N/A	N/A	N	N	N	N
Customer_support									
a2 a2		3751	0	CustomerSupport_L	CustomerSupport_L	Y	Y	Y	Y
L1Load1									
a3 a3			0	L1Load1	L1Load1	Y	N	Y	N
L1Load2									
a3 a3			0	L1Load2	L1Load2	N	N	N	N
L1Load3									
a3 a3			0	L1Load3	L1Load3	N	N	N	N
L1Load4									

System Configuration Report

Site ID: North 1
 Company Name: North Networks
 Reported On: September 17, 2001 2:48:52 PM

L1Load1	0	L1Load1	L1Load1	N	N	N	N	N	N
Ordering	No Agents Assigned	N/A	N/A	N	N	N	N	N	N
Password Reminder	No Agents Assigned	N/A	N/A	N	N	N	N	N	N
Pricing	a1a1	N/A	N/A	N	N	N	N	N	N
San Francisco	No Agents Assigned	N/A	N/A	N	N	N	N	N	N
Shipping	No Agents Assigned	N/A	N/A	N	N	N	N	N	N

Users Configuration

Assign and Skillsets	Display Enabled	Agent ID	User Logon ID	User DN	Agent Class	Fax Number	Email Address
Super Administrator		1	SysAdmin		Administrator		
Super Supervisor		2	SysSuper		Superior		
a1a1	Billing Enabled	3	a1		Agent		
	Pricing Enabled						
a2a2							

System Configuration Report

Site ID: None | Company Name: None | Networks | Reported On: September 17, 2001 2:48:52 PM

Agent	Support	Agent
None	1,000,000	Support
a3 a3	2,000,000	Agent
L1 Load 1	Enabled	
L1 Load 2	Enabled	
L1 Load 3	Enabled	
L1 Load 4	Enabled	

Database Configuration

Adapter Server Name: SIMRS_SQLSRV
Host Name: swis_dbase
Data Directory: f:\sybase\DATA
Maximum Users: 100
Sybase Bin Directory: C:\Sybase\bin
Base BIN: 45

Database Size: 10240 Kb
Customer Host Name: pto0013
Backup Directory: f:\sybase\backp
SQL Script Directory: C:\Sybase\bin\SQLScripts
Sybase Path: C:\Sybase

Database Space Usage:

Total Size: 10,000 GB
Used Space: 0.1971 GB
Percent Free: 98.0287%
Free Space: 9,8029 GB

System Configuration Report

Site ID: None | Company Name: North Hills Works | Reported On: September 17, 2001 2:48:52 PM

Agent Interface Configuration

1000000 Root Directory: C:\iepb\www\root
 Customer Server Host Name: phondqm
 Database Host Name: swirs_dbase
 License Server Host Name: phondqm
 Base URL: 45

User Defaults Settings:
 Host Name: swirs_dbase
 Agent Refresh Interval: 15 Minutes
 Specification of Auto Refresh Interval: Enabled
 Agent Refresh Prompt: Enabled
 Agent Chat Prefix: AgentFull Name
 Max Number of Transactions: 50
 Specification of Max Number of Transactions: Enabled
 Load All Transactions: Enabled
 Specification of Transaction Range: Enabled

Customer Interface Configuration

1000000 Root Directory: C:\iepb\1000000\Root
 Database Host Name: SWIRS_DBASE
 Base URL: 45
 Customer Host Name: phondqm

Web Collab Configuration

Target Directory: C:\Program Files\North Hills\Symposium\WebCenterPortal\04bCollab
 1000000 Root Directory: C:\iepb\www\root
 Database Host Name: SWIRS_DBASE
 Click Stream Installed: Installed
 Base URL: 45
 Click Stream State: Rolling

Web On Hold URL Configuration

Hold Time	Action	Skills	State	Description

System Configuration Report

Site ID: None | Company Name: Nortel Networks | Reported On: September 17, 2001 2:48:52 PM

http://btord013/swc-psidain/shareform.html	
12	Note statebm
www.comics.com	
25	Box tv com ks web page
www.infoseek.com	
15	Note infoseek
www.yahoo.com	
15	Box tv yahoo
	Customer_support

Page Push URL Configuration

Active	URL	Description
	http://btord013/swc-psidain/shareform.html	Shareform
	Customer_support	
	www.infoseek.com	
	Search Engine	
	Customer_support	
	www.yahoo.com	
	Note yahoo	

Click Stream URL Configuration

URL	Active	Description
http://btord013/swc-ops/intra/raisAcct.htm	Yes	Utilities rec page
http://btord013/swc-ops/intra/login.htm	No	Login Page

Text Chat Configuration

Chatting Name	Chatting
Thank You	Thanks using our website.
file home	Good Morning, welcome to Nortel Networks. How may we help you today?

System Configuration Report

Site ID: None | Company Name: North Networks | Reported On: September 17, 2001 2:43:52 PM

System Options Configuration:

Same Chat Log to Database: 01
 E-Mail Chat Log to Database: 01

E-Mail Managers Configuration

Mail Box Configuration

Inboxname	Inbound Skillset	Outbound Skillsets	Display Name	Domain	WinNT Account
Billing_Lab1	Billing	Billing	Billing_Lab1	swis1.aonthe.net	swis1.aonthe.net
CustomerSupport_L1Load1	CustomerSupport	CustomerSupport	CustomerSupport	swis1.aonthe.net	swis1.aonthe.net
L1Load1	L1Load1	L1Load1	Load1	swis1.aonthe.net	swis1.aonthe.net
L1Load2	L1Load2	L1Load2	Load2	swis1.aonthe.net	swis1.aonthe.net
L1Load3	L1Load3	L1Load3	Load3	swis1.aonthe.net	swis1.aonthe.net
L1Load4	L1Load4	L1Load4	Load4	swis1.aonthe.net	swis1.aonthe.net

IMS Settings:

E-Mail Protocol: POP3
 Callback Delay: 1 Minute
 Inbound Mail Threshold: 500
 Customer Record Matching: Search For Existing Customer Record
 Follow-Up Responses: Create Follow Up Response
 Undeliverable Strings: Undeliverable
 Delivery Report (all): Delivery Failure
 Returned Mail: Unknown Recipient
 Not Remark

O/S Settings:

E-Mail Protocol: POP3
 Admin Username: admin@swis1.aonthe.net
 Outbound Mail Threshold: 50
 System Administrator Strings: System Administrator
 Postmaster: Mail Delivery System

System Configuration Report

Site Id: None | Company Name: Nortel Networks | Reported On: September 17, 2001 2:48:52 PM

Other Settings:

In Mail Transaction Acknowledgment: Accept as New Transaction
 In Mail Attachment Directory: %windir%\database\%systemname%\mail
 Out Mail Attachment Directory: %windir%\database\%systemname%\outmail

OTH Configuration

Operation Mode: 24 Hour Operation | Transaction Polling Interval: 5 Minutes
 Operating Time Start: N/A | Agent Configuration: Drop Call
 Operating Time End: N/A | TSP Type: None |
 Base Band: 45

Transaction Monitor Configuration

ODBC DSN Name: SMWRS208 | Polling Interval: 10 Minutes
 Operation Time: 60 Minutes | Acquired Update Status: New
 Acquired Duration Time: 60 Minutes | Log No Update Activity: On
 Base Band: 45

Installed PEPs

Database Server: smws.database | Customer Server: ptord03
 PEPs: Installed On: 9-6-2001 11:54:10
 WRR00145S002 | WRR00145S002
 PEPs: Installed On: 9-6-2001 11:42:02
 WRR00145S002

System Configuration Report

Site ID: None I
Company Name: North Networks
Reported On: September 17, 2001 2:48:52 PM

Component Licenses

WebCollab & Licensed
E-Mail & Licensed

C:\Program Files\North Networks\Symposium\bin\WebCenterPortalAdmin\ktrto\regport\sysconfig.ppt
Printed By: sysadmin 09/17/2001 2:48:52 PM
Page 8 of 8
Symposium Web Center Portal Release 3.0

Creating a new report in Crystal Reports

Introduction

Follow these steps to create a new report using Crystal Reports:

- Create the report and connect to the database.
- Select views and fields.

Before you begin

Before you follow these procedures, obtain training in Crystal Reports.

Before you can use Crystal Reports, you must ensure that your system meets the following requirements:

- You must have Sybase Open Client Installed.
- You must configure the DSN.
- You must be able to access the Symposium Web Center Portal database.

To ensure you can connect to the database

- 1 On the Symposium Web Center Portal server, open dsedit.
- 2 Select the Symposium Web Center Portal server.
- 3 Right-click Server Address.
- 4 Click Modify Attribute.
- 5 Click Edit.
- 6 In the Network Address box, type **<host name>,5005**, where *host name* is the name of the Symposium Web Center Portal server.
- 7 In the Protocol box, type **NLWNSCK**.
- 8 Click OK.

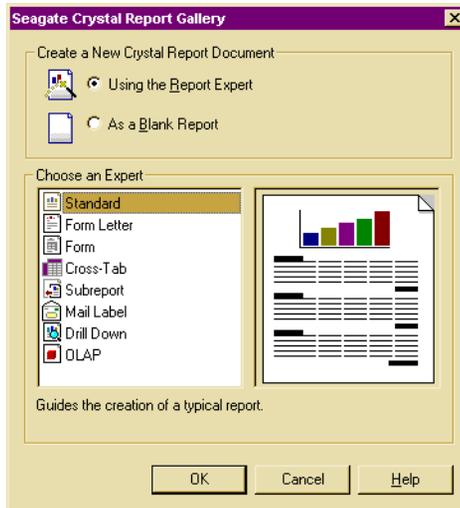
To create a report and connect to the database

- 1 On the desktop, open Crystal Reports Designer.

Result: The Crystal Reports Welcome dialog box appears.

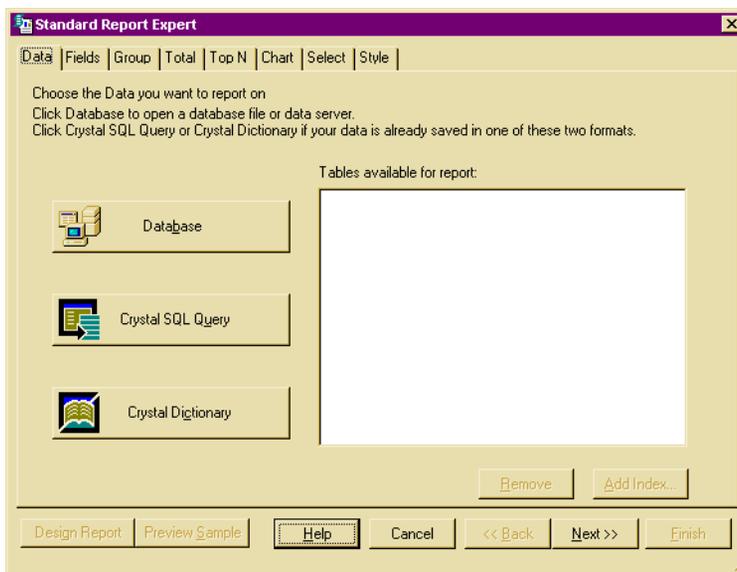
- 2 Click New Report.

Result: The Seagate Crystal Report Gallery window appears.



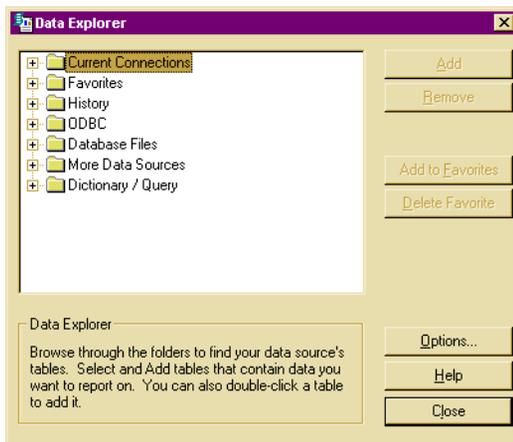
3 Double-click Standard.

Result: The Standard Report Expert window appears.



4 Click Database.

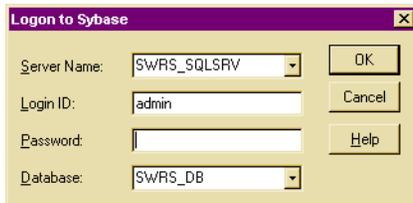
Result: The Data Explorer dialog box appears.



5 Double-click ODBC.

- 6 Double-click SWRS2DB.

Result: The Logon to Sybase dialog box appears.



- 7 Enter your logon ID and password.

Note: If you do not know your logon ID and password, contact your system administrator.

- 8 Click OK.
- 9 Go to the following procedure.

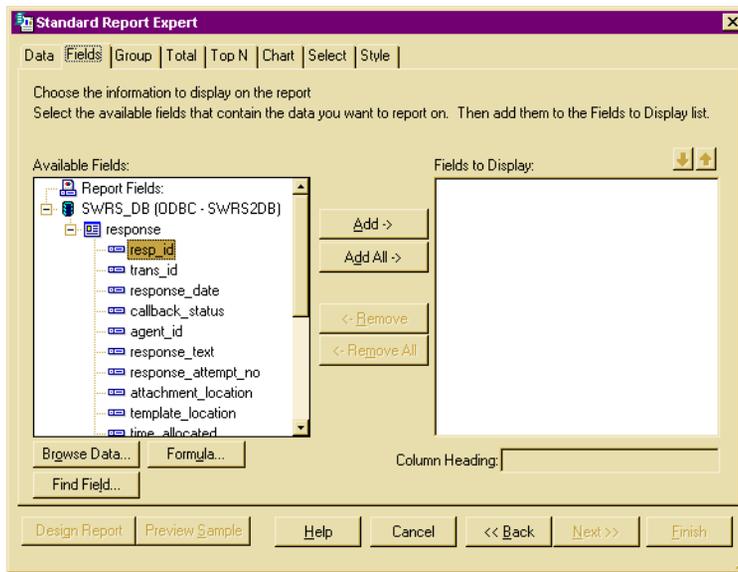
To select views and fields

- 1 From the Data Explorer dialog box, select the view or table that you want to use.
- 2 Click Add.
- 3 Repeat steps 1 and 2 until all required views or tables are selected.
- 4 Click Close when you are done.

Result: You return to the Standard Report Expert window.

5 Click the Fields tab.

Result: The Fields property page appears.



6 From the Available Fields box, select the view field that you want to use.

7 Click Add.

8 Repeat steps 6 and 7 until all required fields are selected.

Note: Click Remove to delete a selected field.

9 If you want to check the report you have configured, click Preview Sample.

Tip: Before previewing the report, you can edit it further by selecting the other property pages available in the Standard Report Expert window:

- Sort—Sort fields
- Total—Total fields
- TopN—Sort totals by the top end
- Graph—Create a graph
- Select—Filter some of the records
- Style—Modify the layout of the report

For more information on these property pages, refer to your Crystal Reports user guide.

Tip

You can change the structure of the report using the menu items in the Crystal Reports Professional window. See the Crystal Reports user guide for more details.

Chapter 9

Backup and restore

In this chapter

Purge overview	346
Symposium Web Center Portal backup	350
System recovery	361
Network database backup	363

Purge overview

Introduction

Use the purge feature on the Symposium Web Center Portal Administrator window to permanently remove information in the database to free up more disk space. When you purge, you remove the closed transaction records from the following four tables:

- trans
- response
- trans_add_data
- attachment_tab

Nortel Networks recommends that you purge the database once a month. Remember to back up the database before you purge the information from it. For more information about backing up the database, see page 350.

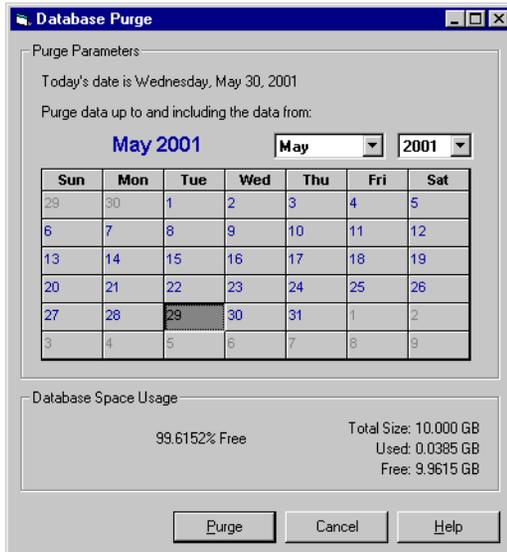
ATTENTION

Use the Space Usage Report to monitor the database. If the database runs out of space, Symposium Web Center Portal may not function properly.

To purge the database

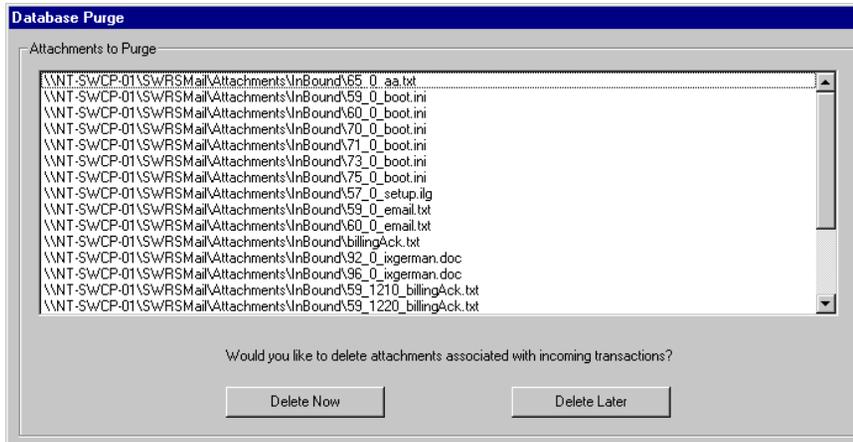
- 1 In the Symposium Web Center Portal - Administration window, click Purge.

Result: The Database Purge window appears.

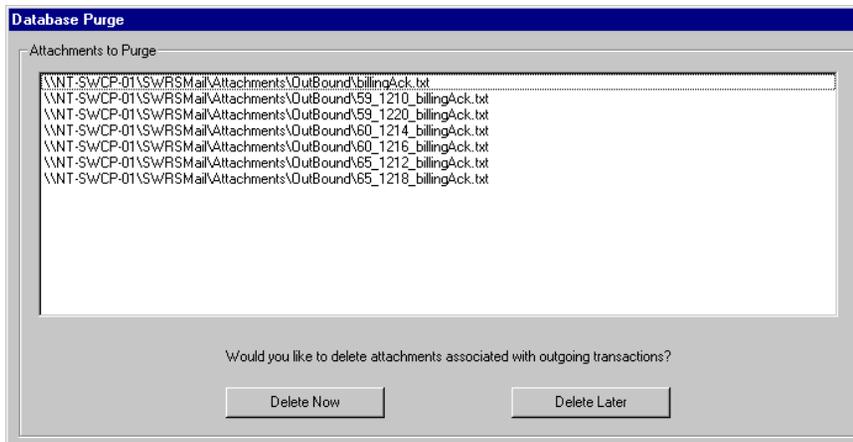


- 2 Choose a date. You cannot choose the current date. The purge feature deletes all the information up to and including the date you selected.
- 3 Click Purge.
- 4 When the Purge Confirmation window appears, click Yes.

- 5 If there are closed inbound transactions with attachments, the following window appears:



- 6 To delete these files now, click Delete Now.
- 7 To delete the files later, click Delete Later.
- a. When prompted, type a file name. A list of the path and file names of the attachments associated with the purged transactions, the purge date, and the date the purge was carried out is stored in this file. You can return to this file and delete attachments later.
- 8 If there are closed outbound transactions with attachments, the following window appears:



- 9 To delete the files later, click Delete Later.
 - a. When prompted, type a file name. A list of the path and file names of the attachments associated with the purged transactions, the purge date, and the date the purge was carried out is stored in this file. You can return to this file and delete attachments later.
- 10 To delete these files now, click Delete Now.

Result: The Purge Complete dialog box appears. Click OK.

Note: You must monitor the space in the attachment folders to ensure there is adequate space for new attachments.

To view the Space Usage Report

- 1 In the Administration window, click Space Usage Report.

Result: The Database Space Usage Report dialog box appears.



- 2 Click Refresh to refresh the information in the dialog box as required.

Symposium Web Center Portal backup

Introduction

Symposium Web Center Portal provides a backup utility that backs up the user information in the database. This backup utility creates a full backup, not an incremental one. You should perform a backup before you run Symposium Web Center Portal for the first time.

You can back up the database to a file on the network, or to a backup tape. You back up the database onto a tape using the tape drive. The backup tape must have a capacity greater than 10 Gbytes and the tape drive must appear in Microsoft's Compatibility List for Windows NT Server 4.0 (www.microsoft.com/hcl/default.asp).

Note: On Microsoft's compatibility web site, in the "Search for the following" box, type **Windows NT**. In the "In the following types" box, type **Storage/Tape Drive**.

The backup and restore feature of Symposium Web Center Portal Release 3.0 allows you to

- perform a manual backup on request
- schedule a daily or weekly backup of the Symposium Web Center Portal database
- cancel the scheduled backup
- restore a previous backup

If you select Log File on either of the backup and restore utility windows, the progress and success or failure of the backup or restore is logged in a text file. The logs are available for the user to verify that an action was successful. If you choose the Log option, error messages from the application display when the action is completed. You can go to `..\Sybase\bin\SQL Scripts\scheduledbkup.txt` (restore.txt or backup.txt) to verify the log file.

If you select Console, the progress of the backup or restore appears in a DOS window on the screen (this information will not be stored in a log file).

Note: If you are performing a scheduled backup, a log is always kept of the progress of the backup or restore.

Use a third-party backup method (such as WinNT Backup) for system backups and recovery for system failures. For more information, refer to “System recovery” on page 361 and your third-party documentation.

You can only store one backup per tape. If you perform a backup to a tape that contains a previous backup, you will overwrite this information.

Scheduling a backup

You can schedule backups on a daily or weekly basis. You can only schedule one weekly backup for a particular execution time unless the device to which the data will be backed up is the same for each of the multiple backups. It is possible to schedule daily backups if the backup device on those days is the same (either tape drive or network location).

Note: You cannot schedule a backup to a tape drive one day, and then to a network location the next day.

To schedule a backup of Symposium Web Center Portal

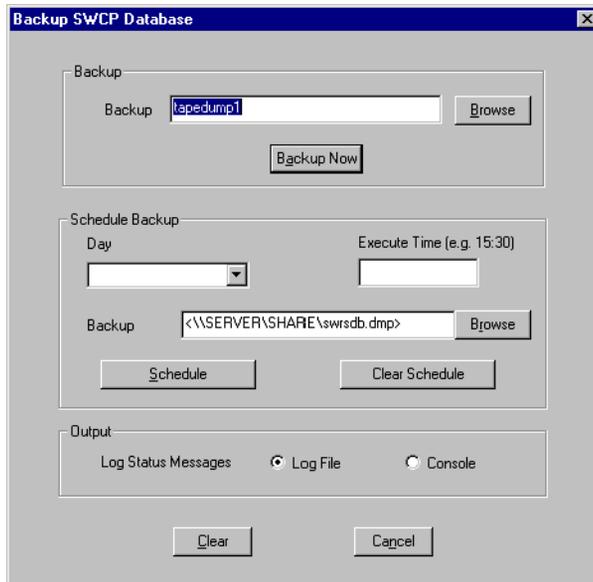
- 1 On the taskbar, click Start → Programs → Nortel Networks Symposium Web Center Portal → Database Backup and Restore.

Result: The SWCP Backup and Restore Utility window appears.



- 2 Click Backup.

Result: The Backup SWCP Database window appears.



- 3 In the Backup box, type the path to which you want to store the data.

IF

you are backing up to a tape drive

you are backing up to a network location

THEN

in the Backup box, type the path to the tape drive. A valid path to the tape drive is `\\.\tapen`, where *n* is the number of the tape drive. (The first tape installed on a system is, by default, `tape0`.)

Note: You can use the alias `tapedump1` instead of `\\.\tape0`.

in the Backup to box, type ***\\name of the network computer\shared directory name on the network computer\swrsdb.dmp***. For example, if the network computer name is `NETWORKPC`, and the shared directory name is `..\SWRS_BACKUP`, then you type `\\NETWORKPC\SWRS_BACKUP\swrsdb.dmp`.

- 4 Select the day that you want to perform the backup.
- 5 In the Execute Time box, enter the time you want the backup to start.
- 6 Click Schedule.

To clear a scheduled backup

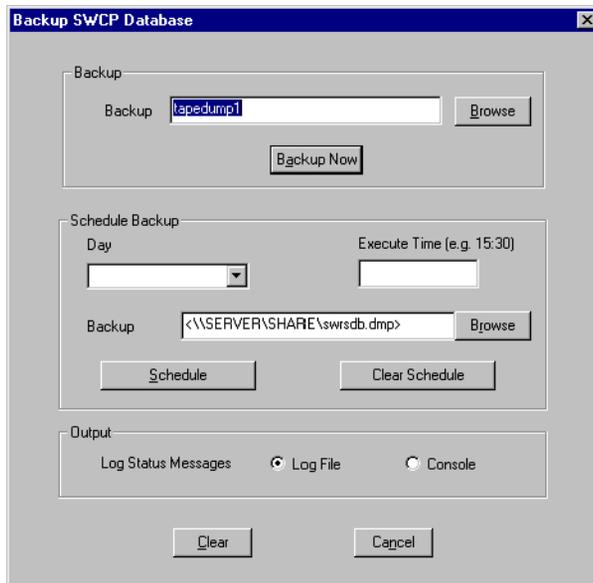
- 1 On the taskbar, click Start → Programs → Nortel Networks Symposium Web Center Portal → Database Backup and Restore.

Result: The SWCP Backup and Restore Utility window appears.



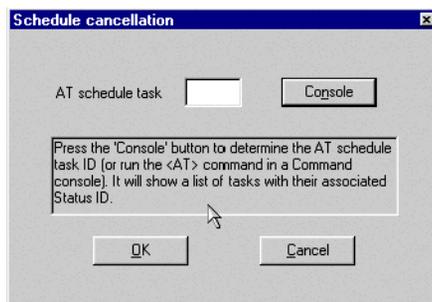
- 2 Click Backup.

Result: The Backup SWCP Database window appears.



- 3 Click Clear Schedule.

Result: The Schedule cancellation window appears.



- 4 Perform one of the following tasks:
 - a. In the AT schedule task ID box, type the ID of the scheduled task you want to cancel.
 - b. If you do not know the task ID, click Console.

Result: A list of scheduled tasks and the corresponding ID appears. In the AT schedule task ID box, type the ID of the task you want to cancel.

- 5 Click OK.

To back up the Symposium Web Center Portal database

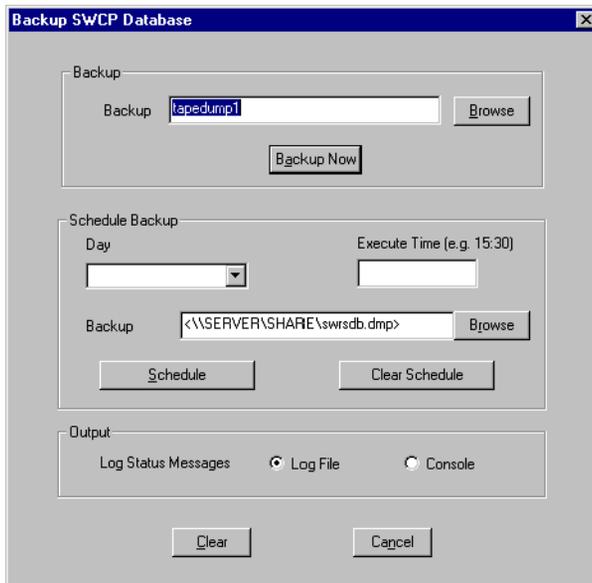
- 1 On the taskbar, click Start → Programs → Nortel Networks Symposium Web Center Portal → Database Backup and Restore.

Result: The SWCP Backup and Restore Utility window appears.



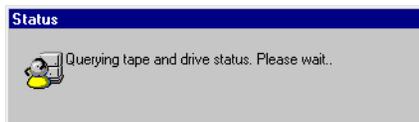
- 2 Click Backup.

Result: The Backup SWCP Database window appears.



- 3 In the Backup box, type a path and valid device name, such as tapedump1. For more information, refer to “Symposium Web Center Portal backup” on page 350.
- 4 Click Backup Now.

Result: The Status window appears.



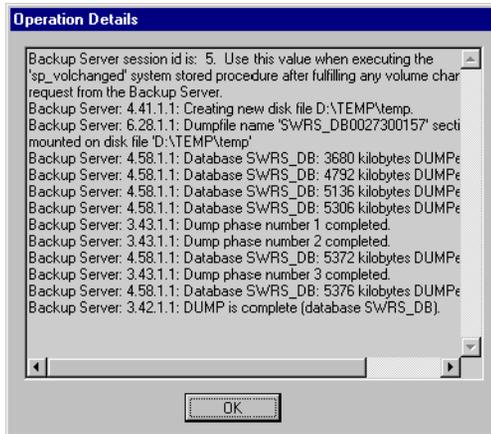
Note: If you do not have a tape drive installed, the tape is write-protected, the tape drive is not ready, or the tape drive is empty, the backup (or restore) will not be executed and an error message appears on the screen.

- 5 In the Output section, choose Log File or Console.

Result: If you choose Console, the output looks like the example below:

```
Backup SWCP Database
Backup Server session id is: 8. Use this value when executing the
'sp_volchanged' system stored procedure after fulfilling any volume change
request from the Backup Server.
Backup Server: 6.58.1.1: Device '\\.\TAPE0' supports multiple dump files per
volume set.
Backup Server: 6.28.1.1: Dumpfile name 'SWRS_DB020630D535' section number 0001
mounted on tape drive '\\.\TAPE0'
Backup Server: 4.58.1.1: Database SWRS_DB: 176 kilobytes DUMPed.
Backup Server: 4.58.1.1: Database SWRS_DB: 348 kilobytes DUMPed.
Backup Server: 4.58.1.1: Database SWRS_DB: 518 kilobytes DUMPed.
Backup Server: 4.58.1.1: Database SWRS_DB: 690 kilobytes DUMPed.
Backup Server: 4.58.1.1: Database SWRS_DB: 860 kilobytes DUMPed.
Backup Server: 4.58.1.1: Database SWRS_DB: 1032 kilobytes DUMPed.
Backup Server: 4.58.1.1: Database SWRS_DB: 1202 kilobytes DUMPed.
Backup Server: 4.58.1.1: Database SWRS_DB: 1374 kilobytes DUMPed.
Backup Server: 4.58.1.1: Database SWRS_DB: 1544 kilobytes DUMPed.
Backup Server: 4.58.1.1: Database SWRS_DB: 1716 kilobytes DUMPed.
Backup Server: 4.58.1.1: Database SWRS_DB: 1886 kilobytes DUMPed.
Backup Server: 4.58.1.1: Database SWRS_DB: 2058 kilobytes DUMPed.
Backup Server: 4.58.1.1: Database SWRS_DB: 2228 kilobytes DUMPed.
Backup Server: 4.58.1.1: Database SWRS_DB: 2400 kilobytes DUMPed.
Backup Server: 4.58.1.1: Database SWRS_DB: 2570 kilobytes DUMPed.
Backup Server: 4.58.1.1: Database SWRS_DB: 2742 kilobytes DUMPed.
Backup Server: 4.58.1.1: Database SWRS_DB: 2912 kilobytes DUMPed.
Backup Server: 4.58.1.1: Database SWRS_DB: 3084 kilobytes DUMPed.
```

If you choose Log File, the Operation Details window appears when the operation is complete.



To restore the Symposium Web Center Portal database

- 1 Shut down all Symposium Web Center Portal applications.

ATTENTION

If you do not shut down the Symposium Web Center Portal applications, the restore will fail.

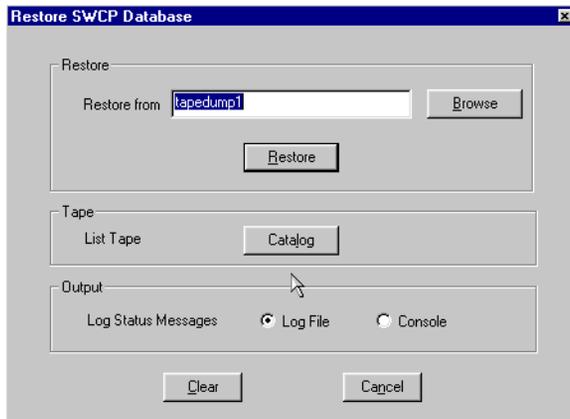
- 2 Stop Sybase SQLServer_SWRS_SQLSRV, and then restart the service.
- 3 Stop Sybase BCKServer_SWRS_SQLSRV_BS, and then restart the service.
- 4 On the taskbar, click Start → Programs → Nortel Networks → Symposium Web Center Portal → Database Backup and Restore.

Result: The SWCP Backup and Restore Utility window appears.



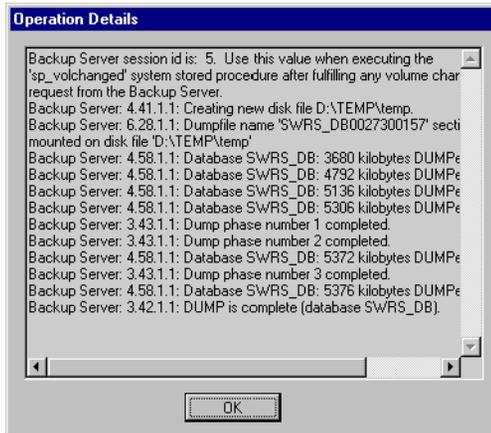
- 5 Click Restore.

Result: The Restore SWCP Database window appears.



- 6 Browse to the backup file you want to restore, and then click Restore.

Result: When the restore is complete, the Operation Details window appears.



- 7 Click OK.
- 8 Restart the computer.

To catalog the database

If you forget to mark the tapes on which you performed a backup, you can use the catalog feature to find out the date, time, and the name of the device used to create the backup tape.

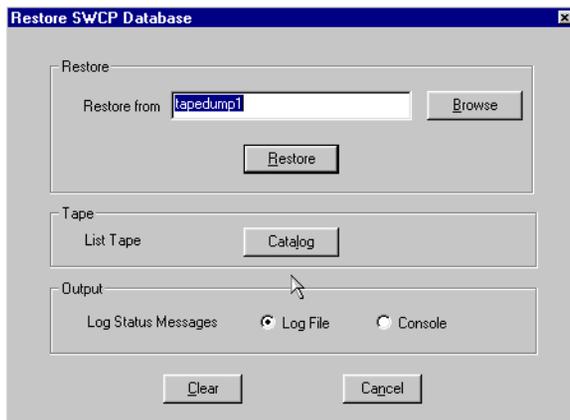
- 1 From the Start menu, choose → Programs → Nortel Networks → Symposium Web Center Portal → Database Backup and Restore.

Result: The SWCP Backup and Restore Utility window appears.



- 2 Click Restore.

Result: The Restore SWCP Database window appears.



- 3 Click Catalog.

Result: A list of the contents of the previously backed up database appears.

System recovery

Introduction

You can use a third-party utility (such as WinNT backup) to back up all of the hard drives, and then restore the entire system to the same computer, or to one with identical hardware. Follow the procedures in this section to perform a complete system recovery.

If you need to recreate the Symposium Web Center Portal environment on another computer, you can use the procedure below.

To back up a Symposium Web Center Portal system for recovery

- 1 Shut down all Symposium Web Center Portal services.
- 2 Use the Backup and Restore utility to back up the database. For more information, refer to “Symposium Web Center Portal backup” on page 350.
- 3 Make a copy of the Master.dat and Sybprocs.dat files.
- 4 Make a copy of the e-mail attachments folder.
- 5 Make a copy of the ims.ini and oms.ini files.
- 6 Export the registry key ..\Nortel Networks\Symposium Web Center Portal to a file.

To recover a Symposium Web Center Portal from a system backup

- 1 Install Symposium Web Center Portal to the same PEP level as the original system.
- 2 Shut down all Symposium Web Center Portal services.
- 3 Overwrite the existing ims.ini and oms.ini. files with the files you copied for the source computer in the procedure above.
- 4 Overwrite the attachments folder with the files you copied for the source computer in the procedure above.
- 5 Overwrite Master.dat and Sybprocs.dat with the files you copied for the source computer in the procedure above.

- 6** Import the registry key that you exported in the previous procedure.
- 7** Restart the computer.
- 8** Restore the database. For more information, refer to “System recovery” on page 361.

You must also back up the Customer Interface and Agent Interface server (if you have a two-server configuration) separately, by performing a Windows copy to the network, or by using a third-party utility.

Network database backup

Introduction

You can back up the database using a user account with administrator privileges on the Symposium Web Center Portal server. This user should have permission to access the remote network drives.

To configure the network database backup

- 1 Create a Local Windows NT user account on a network computer with Administrator privileges.
Note: This network computer can be on the network domain. This network computer should be on the same domain as the Symposium Web Center Portal server.
- 2 Ensure that the “User must change password at next logon” box is cleared.
- 3 Create a Shared directory on a drive on this network computer. Give full control on the Shared directory to the local Administrator account created in step 1.
- 4 Create the same local user Windows NT account as in step 1 on the Symposium Web Center Portal server with Administrator privileges.
Note: The password for this account should be the same as the one you created in step 1.
- 5 Ensure that the “User must change password at next logon” box is cleared.
- 6 Ensure that the “Log on as a service” box is checked.
- 7 Configure the Sybase backup service:
 - a. On the Control Panel, double-click Services.
 - b. Stop Sybase BCKServer_SWRS_SQLSRV_BS.
 - c. Double-click the entry for Sybase Backup Server service.
 - d. Click This Account, and select the Windows NT user created in step 4.
 - e. Type the password for this user. This password should be the same password as in step 4.
 - f. Click OK, and then close the Services window.

- g. Start up Sybase BCKServer_SWRS_SQLSRV_BS.
- 8 Perform a database backup using the Symposium Web Center Portal database backup procedure on page 355.
Note: When performing the backup procedure, in the Backup to box, type ***\\name of the network computer\shared directory name on the network computer\swrsdb.dmp***. For example, if the network computer name is NETWORKPC, and the shared directory name is ..\SWRS_BACKUP, then you type \\NETWORKPC\SWRS_BACKUP\swrsdb.dmp.

To restore the database from a network computer

- 1 Shut down all Symposium Web Center Portal applications.

ATTENTION

If you do not shut down the Symposium Web Center Portal applications, the restore will fail.

- 2 Stop Sybase SQLServer_SWRS_SQLSRV, and then restart the service.
- 3 Stop Sybase BCKServer_SWRS_SQLSRV_BS, and then restart the service.
- 4 On the taskbar, click Start → Programs → Nortel Networks Symposium Web Center Portal → Database Backup and Restore.
- 5 Select Restore.
- 6 In the Restore From box, type ***\\name of the network computer\shared directory name on the network computer\swrsdb.dmp***. For example, if the network computer name is NETWORKPC, the shared directory name is ..\SWRS_BACKUP, and the name of the database dump file that was done in the database backup is swrsdb.dmp, then you enter \\NETWORKPC\SWRS_BACKUP\swrsdb.dmp.

Chapter 10

Platform migration and uninstalling

In this chapter

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Platform migration

Introduction

This section provides information about upgrading the hardware for Symposium Web Center Portal.

ATTENTION

The database size on the new hardware must be exactly the same as the database size on the existing hardware.

You can migrate Symposium Web Center Portal onto either a single CPU or a dual CPU.

Upgrading the hardware for Symposium Web Center Portal

To upgrade the hardware for Symposium Web Center Portal, you must perform the following tasks:

1. If you are migrating or upgrading the Symposium Web Center Portal server, then you must back up the Symposium Web Center Portal database.
2. If you are migrating the External Web server, then you must back up the Customer Interface, along with all of the customized web pages or templates that you modified or added to the External Web server.
3. Install and configure Symposium Web Center Portal on the new servers.

For more information about installing Symposium Web Center Portal, see Chapter 3, “Installing the Symposium Web Center Portal software.”

4. Restore the Symposium Web Center Portal database on the new database server.
5. Reapply all PEPs and SUs.

Decoupling the Agent Interface

Introduction

You can move the Agent Interface component onto a separate server to increase the efficiency of Symposium Web Center Portal.

Before you install the Agent Interface component on a separate PC, ensure that the following is installed:

- Sybase Open Client (refer to “To install Sybase Adaptive Server Enterprise” on page 87)
- Sybase EBF (refer to “To apply the Sybase EBF” on page 90)
- MDAC (refer to “To install Microsoft Data Access Components” on page 103)
- Windows Script Version (refer to “Other required applications” on page 100)
- JRE (refer to “To install JRE (J2SE)” on page 105)

You must also ensure that the new Agent Interface server meets the hardware and software requirements as stated in Chapter 2, “Planning and engineering.”

To decouple the Agent Interface component

To move the Agent Interface onto a separate server, follow these steps.

- 1 Perform a fresh install of the Agent Interface component on the new server. For more information, refer to “Installing the Agent Interface” on page 108, and “Installing the Web Communication Manager” on page 149.

Note: You can keep the Agent Interface component installed on the Symposium Web Center Portal server in case you decide to revert back to having the Agent Interface on the Symposium Web Center Portal server later.

- 2 On the Symposium Web Center Portal server, disable the Agent Interface through IIS.
 - a. Log on to the server on which you installed the Agent Interface with Windows NT Administrator privileges.

- a.** Log on to the Symposium Web Center Portal server with administrative privileges.
- b.** From the Windows Start menu, choose Programs → Nortel Networks - Symposium Web Center Portal, and then click SWCP Setup Configuration.
- c.** Review the warning message, and then update the Agent Interface server host name with the name of the server to which you migrated.
- d.** Restart the Symposium Web Center Portal server.

Uninstalling the software

Introduction

Follow the instructions in this section to uninstall the Symposium Web Center Portal Release 3.0 software.

ATTENTION

Uninstall the Database component last. You can uninstall the other components in any order.

If you uninstall the database component, you must uninstall Sybase. You cannot reinstall the database component without reinstalling Sybase.

Before you begin

Before you begin, you must perform the following tasks:

1. Shut down the Symposium Web Center Portal server.
2. Back up the Symposium Web Center Portal Release 3.0 database using the Backup and Restore utility. For more information, refer to “Symposium Web Center Portal backup” on page 350.
3. Back up the customer interface along with all of the customized web pages or templates that you modified or added to the External Web server.
4. Stop the IIS Admin service (this will also stop the FTP Publishing Service, Microsoft SMTP Service, and World Wide Web Publishing Service).
5. Disable the Startup for IIS Admin Service to make sure it does not start automatically during the upgrade.
6. Stop the JRun Admin Server and JRun Default Server services.
7. Stop the DTH application.
8. Stop the TapiMonitor (if it is running).
9. In the Task Manager Window, ensure there are no Symposium Web Center Portal Release 3.0 applications running.

10. Stop the Sybase SQL Server - SWRS_SQLSRV service.
11. Stop the Sybase BCK Server - SWRS_SQLSRV_BS service.
12. Shut down TAPI desktop monitor and TAPI Agent on the agent PCs.

To stop services

- 1 From the Windows Start menu, choose Settings → Control Panel.
- 2 Double-click Services.
- 3 Select the service you want to stop.
- 4 Click Stop.
- 5 Repeat steps 3 and 4 for every service you want to stop.
- 6 Exit the Services window.

To uninstall the Symposium Web Center Portal software

- 1 Log on to the Symposium Web Center Portal server with Administrative privileges.
- 2 From the Windows Start menu, choose Settings → Control Panel.
- 3 Double-click Add/Remove Programs.

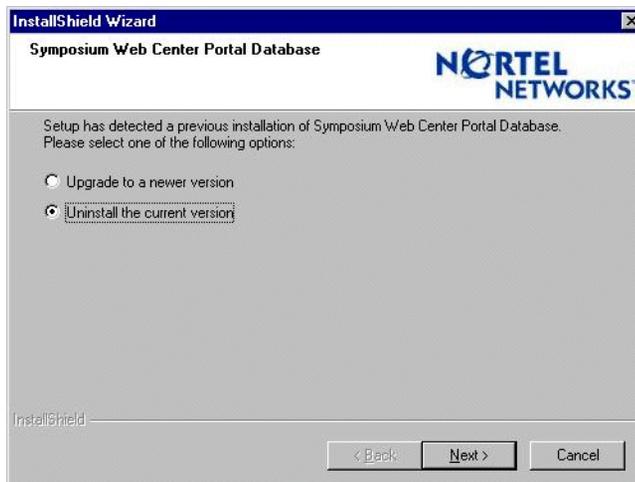
Result: The Add/Remove Programs Properties window appears.



ATTENTION You must uninstall the Database component last.

- 4 Select a Symposium Web Center Portal component, and then click OK.

Result: The InstallShield Wizard upgrade or uninstall window appears.



- 5 Select Uninstall the current version, and then click Next.

Result: A dialog box prompts you to confirm your choice.



- 6 Click Yes.

Result: The application files are deleted from your computer.

- 7 Repeat steps 2 to 6 for each of the Symposium Web Center Portal applications that you want to uninstall.

Manual cleanup of Symposium Web Center Portal

If you want to remove Symposium Web Center Portal completely, then you must remove the following:

- On the Start menu of the Symposium Web Center Portal server, remove the Symposium Web Center Portal shortcut and the Telephony service shortcut. You must also remove the SWCP shutdown icon on the desktop.
- On the Start menu of the Agent Interface server, remove the Agent Interface Server shortcut.
- On the agent PCs, remove the Startup\Tapi Desktop monitor shortcut.

You must also delete the following folders:

- C:\Program Files\Common Files\Nortel Networks\Symposium Web Center Portal
- C:\Program Files\Nortel Networks\Log Files
- C:\Program Files\Nortel Networks\Symposium Web Center Portal

- D:\Symposium Web Center Portal (component), where D: is the drive on which you installed Symposium Web Center Portal

ATTENTION

If you uninstall the Symposium Web Center Portal database component, then you must uninstall Sybase. If you reinstall Symposium Web Center Portal database without reinstalling Sybase, Symposium Web Center Portal will not work properly.

To uninstall Sybase

- 1 Log on to the Symposium Web Center Portal server with the Administrator user ID.
- 2 From the Windows Start menu, choose Settings → Control Panel.
- 3 Double-click Services.
- 4 Stop SQLServer_SWRSSQLSRV.
Note: Ignore this step if SQLServer_SWRSSQLSRV is not present.
- 5 Stop BCKServer_SWRS_SQLSRV_BS.
Note: Ignore this step if BCKServer_SWRS_SQLSRV_BS is not present.
- 6 Close the Services window.
- 7 On the taskbar, click Start → Program → Sybase → Server Config.
- 8 Select Adaptive Server, and then click Remove Adaptive Server.
Result: The Removing Adaptive Server! Continue? message appears. Click Yes. The Exit SyConfig and Reboot now message appears. Click Yes.
- 9 Select Backup Server, and then click Remove Backup Server.
Result: The Removing Backup Server! Continue? message appears. Click Yes. The Exit SyConfig and Reboot now message appears. Click Yes.
- 10 Select Monitor Server, and then click Remove Monitor Server.

Result: The Removing Monitor Server! Continue? message appears. Click Yes. The Exit SyConfig and Reboot now message appears. Click Yes.

- 11 Click Exit.
- 12 Insert the Symposium Web Center Portal CD-ROM in the CD drive.
- 13 Open the Sybase 11_5 folder.
- 14 Run Setup.exe.
- 15 Select Licensed Products, and then click Uninstall.
- 16 Click OK.
Result: The "Uninstall is complete" window appears.
- 17 Click OK.
- 18 Click Exit.
- 19 Perform the manual cleanup of Sybase.

To perform the manual cleanup of Sybase

- 1 In the default directory, delete the pwrs folder.
- 2 In the default directory, delete the Sybtools folder.
- 3 Go to Inetpub\wwwroot and delete SWRSAgent and SWRS-HTML.
Note: Ignore this step if SWRSAgent and SWRS_HTML are not present.
- 4 Restart the computer.

Chapter 11

Troubleshooting

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Overview

Introduction

This section provides troubleshooting information for Symposium Web Center Portal. For each problem mentioned in this section, it suggests possible solutions.

This section also provides information about the maintenance tools you can use to ensure Symposium Web Center Portal is running smoothly.

Maintenance and diagnostic tools

Introduction

The following tools are included with Symposium Web Center Portal Release 3.0:

- Web Communication Manager tools for the Internet Information Server
- Tracing tools
- pcAnywhere

If an error occurs, record the error message, the system configuration, and the actions taken before and after the error occurred. If the problem persists, contact your Nortel Networks customer support representative.

Administration maintenance

The following is a list of the basic administration maintenance required by Symposium Web Center Portal:

1. Check the e-mail server mailboxes for any mail that was not processed by the IMS. Log on to the e-mail server and look at the number of e-mails in each skillset's inbox. This number should reduce each time the IMS runs. Nortel Networks recommends that the administrator add the Symposium Web Center Portal mailboxes to the e-mail client.
2. Check the NT Event log for Symposium Web Center Portal error messages. For more information, refer to "To change Windows EventLog size" on page 383 and your Windows documentation.
3. Use the Symposium Web Center Portal event log configuration window to view the event logs for the different components. For more information, refer to "Symposium Web Center Portal log configuration" on page 385.
4. Monitor the amount of data in the database and purge the database as necessary. For more information, refer to "Backup and restore" on page 345.
5. Monitor the size of the inbound e-mail attachment folder.

6. After you install and configure Symposium Web Center Portal, and it is running correctly, you must perform a complete system backup. You must also plan a regular backup schedule for your system that includes regular database and full operating system backups. For more information, refer to “Backup and restore” on page 345.

TAPI support tools

Support personnel can use the TAPI Browser to isolate and debug problems associated with the telephony portion of Symposium Web Center Portal.

TAPI Browser

Use the TAPI Browser to test the connection between the TAPI server and the desktop. You can also use it to make and receive test calls from the agent’s phone to test the line connection.

To use the TAPI Browser at the agent desktop

Map to the drive where the TAPI server is located, and run the TAPI Browser from there. For more information, refer to “To verify TAPI functionality” on page 393.

pcAnywhere

pcAnywhere is included on the Symposium Web Center Portal Release 3.0 CD-ROM; however, it is not installed automatically during the Symposium Web Center Portal installation. For more information, refer to “Installing pcAnywhere” on page 443.

To use pcAnywhere for remote debugging

- 1 Install the pcAnywhere software on both the Symposium Web Center Portal server and the agent PC.
- 2 Open pcAnywhere on the agent PC to connect to the server and remotely debug the server problems

For more information about pcAnywhere, refer to the pcAnywhere documentation.

Overview of viewing events

Introduction

This section provides guidelines for viewing events with the Windows Event Viewer on the server, and describes recommended sizes for the event logs.

Events

Events are log entries that record activities on the server, such as

- sending or receiving messages
- opening or closing applications
- errors

Some events are for information purposes only, while others can indicate problems. Events are categorized by severity.

You can use the SWCP Log Configuration tool to filter the Symposium Web Center Portal events into specific directories. For more information, refer to “Symposium Web Center Portal log configuration” on page 385.

Event severity

Events are assigned a default severity of Error, Warning, or Information.

Error

These events indicate that a service-affecting condition has occurred and an immediate corrective action is required. Critical events are reported when a component is completely out of service and you must take immediate action to restore it.

Warning

These events indicate that a service-affecting condition has developed and an urgent corrective action is required. The event condition can cause severe degradation in server performance, and you must restore full capacity.

Information

These events indicate that a non-service-affecting fault condition exists, and that you must take corrective action to prevent a more serious fault.

Changing the Windows EventLog size

Introduction

The Windows EventLog resides on the server and stores a record of all events that occur on the server. When you install Symposium Web Center Portal, the installation program sets certain default sizes for the various Windows log files. If you change the size settings, the results affect the entire server.

Note: Only qualified technicians should make changes to these settings.

Event wraparound

The EventLog size is fixed. It does not increase in size as new events are added to the log. When the log is full and a new event is generated, the server removes the *oldest* event report in the log and replaces that report with the newest one.



CAUTION

Risk of data loss

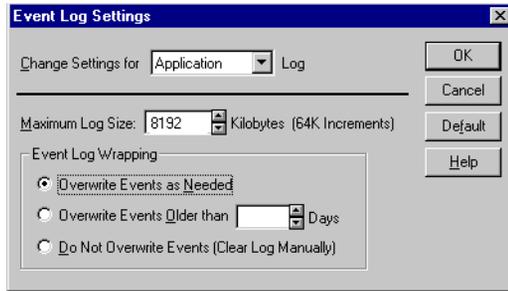
Only qualified technicians should make changes to these settings.

To change Windows EventLog size

You must change settings on the Windows Event Viewer to avoid losing any application events.

- 1 From the Start menu, choose Programs → Administrative tools → Event Viewer.
- 2 From the File menu, choose Log settings.

Result: The Event Log Settings window appears.



- 3 In the Maximum Log Size box, set the maximum log size to 8192 kbytes.
- 4 Select Overwrite Events as Needed.
- 5 Click OK.

Symposium Web Center Portal log configuration

Introduction

The Symposium Web Center Portal Log Configuration window allows you to choose where you want to store events for the system. You must set up the log file directory through the Symposium Web Center Portal Log Configuration window to filter any of the event codes for the Symposium Web Center Portal components. You can filter these events from the NT event codes when you are experiencing problems with your system.

From the Symposium Web Center Portal Log Configuration window, you can choose

- the verbosity or severity of the events that you want to filter
- the Symposium Web Center Portal components for which you want to view the events. Only the components installed on the server appear in the list. A log file is created for each of the components.
- the directory in which the system stores the event log files

The verbosity ranges from 1 to 6, as follows:

1. Critical errors only — Only critical errors. Critical errors require immediate action to resolve a system failure.
2. Critical and major errors — All critical and major errors. Major errors are reported when the system is working; however, the functionality is impaired.
3. All errors — All critical, major, and minor errors. Minor errors are reported when the system is working as is most of the functionality; however, some of the functionality is impaired.
4. All errors and first level trace information — Debugging information at the page level.
5. All errors, first and second level trace information — Debugging information at the functional level.

6. All errors and all levels of trace information — All debugging information.

The default verbosity is 4. A verbosity of 4 allows you to see all of the error messages and the first level traces.

The default log size is 200 000 bytes. When the current log file is full, it becomes a backup file and a new log file appears. When the second log file is full, the backup file is deleted and the second log file becomes the backup file.

For a listing of the event codes, refer to Appendix G.

Reading the Symposium Web Center Portal trace file

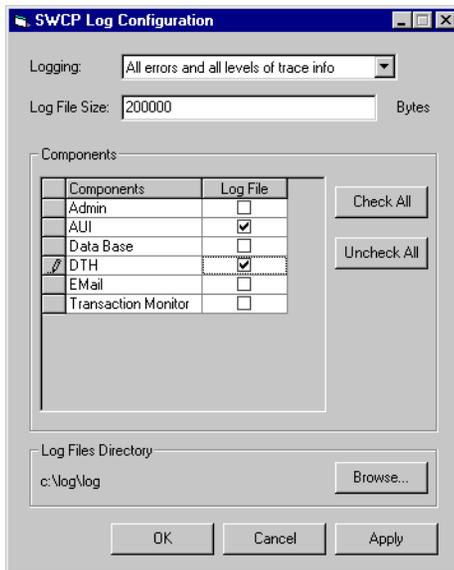
Each trace file provides the following information for each of the event codes:

- timestamp
- data and time
- component and subcomponent
- error level
- event code
- process ID
- module and/or function name and/or line number
- description

To use the Symposium Web Center Portal Log Configuration window

- 1 On the server, navigate to ..\ Program Files\Common Files\Nortel Networks\Symposium Web Center Portal\swcplogClt.exe.
- 2 Double-click swcplogClt.exe.

Result: The SWCP Log Configuration window appears.



- 3 Check the Log File box for the components you want to filter. The default for all of the components is off.
- 4 Browse to the directory in which you want to store the log.
- 5 Click OK.

Alarms and error messages

Introduction

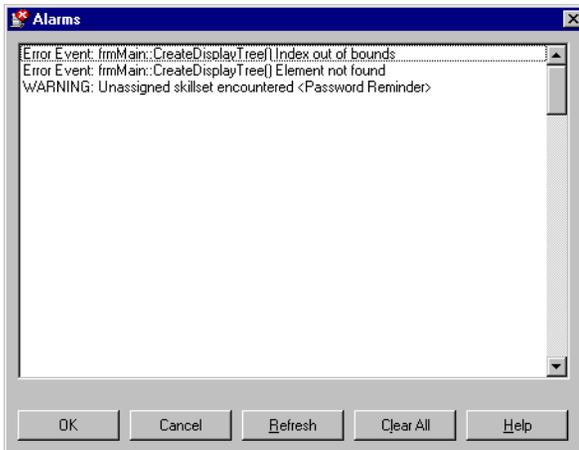
When Symposium Web Center Portal is installed, upgraded, or uninstalled, it generates log files, located at `..\Program Files\Nortel Networks\Log Files`. Any errors or warnings that you encountered during the installation, upgrade, or uninstall are recorded in the log files for each of the Symposium Web Center Portal components:

- Database and Services—`DBInstall.log`, `ServiceInstall.log`
- Agent Interface—`AgentInstall.log`
- Administrator—`AdminInstall.log`
- Telephony Service—`TeleSvr.log`
- Customer Interface—`WebInstall.log`
- Web Communication Manager—`WebCollabInstall.log`
- Telephony Client—`TeleClient.log`

To view the error log

In the Symposium Web Center Portal Administration window, choose **View**, and then choose **View Alarms**.

Result: The Alarms window appears.

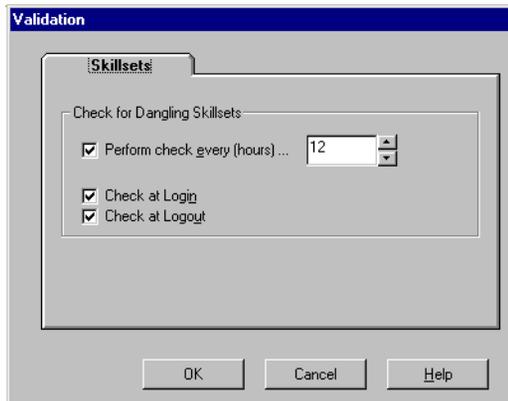


Note: When the View Alarms menu item is disabled, the error log is empty.

To set skillset validation at logon and logoff

- 1 In the Symposium Web Center Portal Administration window, choose Utilities → Options.

Result: The Validations window appears.



- 2 To check for unassigned skillsets when administrators and supervisors are logging on, ensure that Check at Login is checked.

- 3 To check for unassigned skillsets when administrators and supervisors are logging off, ensure that Check at Logout is checked.

To check for unassigned skillsets

The most frequent error is an unassigned skillset (dangling skillset). This error occurs when there are no agents assigned to a particular skillset. Transactions that are routed to an unassigned skillset are not processed by agents.

- 1 In the Symposium Web Center Portal Administration window, choose View, and then choose View Alarms.
- 2 In the Alarms window, look for errors relating to skillsets.

Note: If no alarms or errors exist, the View Errors menu item is disabled.

To check for error messages

- 1 In the Symposium Web Center Portal Administration window, if the status bar is not displayed, choose View → Status bar.
- 2 Look at the status bar at the bottom of the Symposium Web Center Portal Administration window. The number of alarm messages appears in the middle of the status bar.

Tip: You can double-click the number of messages on the status bar to view details.

Dynamic Transaction Handler troubleshooting

Introduction

This section lists problems that can occur with the DTH and TAPI. For each problem, it suggests possible solutions. For more information about troubleshooting TAPI, refer to “Troubleshooting” in the *Nortel Networks Symposium Network Manager’s Guide*, Standard 1.0, December 2000.

Several improvements have been made in the Dynamic Transaction Handler for Symposium Web Center Portal Release 3.0 to provide increased stability and improved error handling.

Error handling

The DTH handles any communications errors with the TAPI server as a result of CTI link loss, TAPI server congestion, TAPI server restarts, switch errors, switch restarts, and network problems. All errors are reported in the Windows NT event log.

DTH is not retrieving transactions from the database

If the DTH is not configured correctly, it may not acquire transactions from the database or attempt to place calls. The DTH depends on several other components to function properly. For more information, refer to “Configuring the Dynamic Transaction Handler” on page 135. Follow the instructions in this section to ensure that these components are configured correctly.

Preferred callback time for telephone transactions

When a customer sends a web transaction to an agent, the customer can request a preferred Callback media. If the media is Telephone, the customer can enter callback details.

The DTH always pushes callback transactions to the agent 60 minutes before the customer’s requested time. The Agent receiving the transaction must either act on the request ahead of time or make a note and respond to the transaction closer to the requested time.

The DTH uses the registry value `EndTimeAdjust` under `HKEY_LOCAL_MACHINE\SOFTWARE\Nortel Networks\Miner\1.0` when it pushes callback transactions. The Symposium Web Center Portal administrator can reduce this value to avoid the 60-minute preemptive presentation of the callback transaction.

Before you make any changes to the registry, you must consider the average length of agent calls. If the transaction is acquired at or close to the callback time and a TAPI line does not become free for the DTH to present the call, then the agent will miss the callback time specified by the customer.

To verify Symposium Web Center Portal Administrator data

On the Symposium Web Center Portal, ensure that

- the phone number for each skillset is a valid phone number, and the phoneset is where you can hear it ring (for testing). The phoneset must be associated with an agent for proper functionality.
- the priority is entered for each skillset. If there are any priorities missing, the DTH does not function correctly. If you do not know the priority, use **1** as a placeholder until you determine the priority.

To verify the Symposium Web Center Portal database data

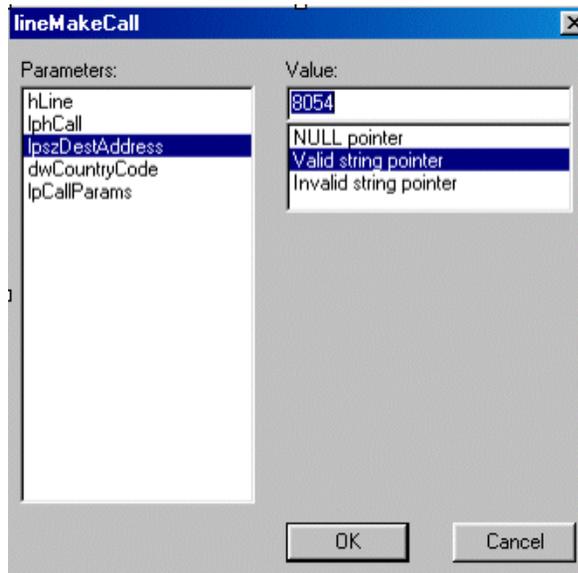
- 1 On the Symposium Web Center Portal, ensure the following:
 - The database must be active, and there must be valid transactions in the database that are candidates for the DTH.
 - The status of the transaction must be 0 or 7.
 - The callback date and time of the transaction must be greater than or equal to the current system date and time (minus one hour).
- 2 Use a database utility (such as ms query or SQL Advantage) to look at the database tables.
- 3 View the skillset columns called `skillset_id`, `acd_dn`, and `priority`.
Each skillset must have `acd_dn` and `priority` datafilled. `Priority` is a small integer field (for example, 0–25). The `acd_dn` field must be a valid phone number. The DTH calls this number on a skillset match.
- 4 View the trans columns called `trans_id`, `trans_status`, and `trans_callback_date`.

The DTH looks at transactions with `trans_status=0` or `7` and `trans_callback_date` greater than or equal to the current time/date. If it finds a match, the status changes from `0` or `7` to `5`. If this change takes place, the DTH is working correctly. It is attempting to place calls, but TAPI is not allowing the calls to go through. For more information, refer to the TAPI server and client configuration information in your TAPI documentation.

To verify TAPI functionality

Before you run the TAPI Browser, ensure that you configured the TAPI lines for the DTH and the agents. You must also shut down the DTH before you run the TAPI browser. For more information, refer to “Configuring the TAPI server” on page 481, and “Troubleshooting” in the *Nortel Networks Symposium Network Manager’s Guide*, Standard 1.0, December 2000.

- 1 Start the TAPI browser.
 - a. Navigate to `..\M1Server\Tools`, and then double-click `TB20W.exe`.
Result: The TAPI 32 Browser window appears.
- 2 Initialize the lines.
 - a. Double-click `Line InitializeEx`.
Result: The number of lines appears.
- 3 Open all of the lines.
 - a. Clear the Params box.
 - b. On the TAPI Browser, double-click `Open All Lines`.
Note: If the Params box is checked, you must click OK for each line.
- 4 Make a phone call through one of the lines using the TAPI Browser.
 - a. Highlight an open line.
 - b. Ensure that the Params box is checked.
 - c. Click `Call+` or `lineMakeCall`.
Result: The `lineMakeCall` window appears.

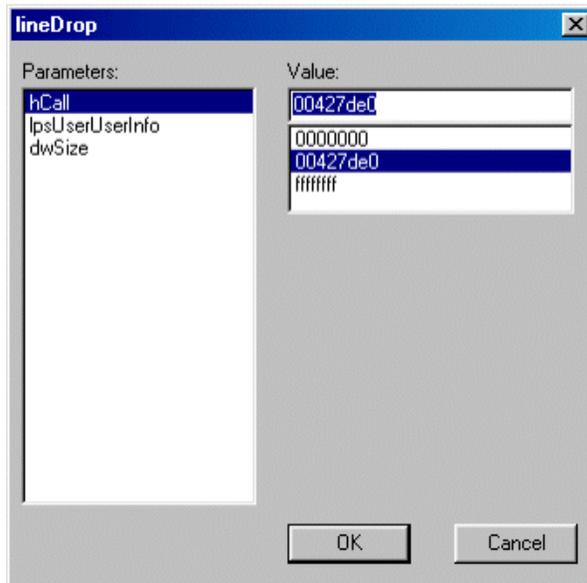


- d. Click IpszDestAddress.
- e. Click Valid string pointer.
- f. In the number box, enter the number of a phoneset.
- g. Click OK.

Result: The phone rings.

- 5 Disconnect the call.
 - a. Highlight the call.
 - b. Click Call- or lineDrop.

Result: The lineDrop window appears.



- c. Select the hCall parameter.
- d. Select the valid call handle value (for example, 00437dez).
- e. Click OK.

Result: The call is disconnected.

- 6 Make another call through the same line using the TAPI Browser.

IF

THEN

the second call is completed correctly TAPI is functioning properly.

the second call did not go through successfully

check the “Online Help Troubleshooting” section for TAPI in the *Network Management Guide*.

- 7 If necessary, check all other TAPI lines.

To ensure that the TN in question is configured properly

- 1 Check that AST is set properly in the switch. This is the ACD key number and the primary DN key number for the phoneset that TAPI will watch.
- 2 Check that IAPG is set to 1 in the switch.
- 3 Check that VASID is set to the same value as VASID in MLink.

Note: For more information, refer to your switch documentation.

To test TAPI again

Once you have confirmed the above conditions, follow these steps.

- 1 Shut down the TAPI server, and then restart it.
- 2 Repeat all of the steps in “To verify TAPI functionality” on page 393.

Result: When you can make four consecutive successful calls using the same line in the TAPI browsers, TAPI is configured properly.

To restart the TAPI server

Note: Symposium Web Center Portal, as well as all applications using the TAPI server are affected by a TAPI server restart. Ensure that everyone using the TAPI server is aware that you are restarting the server.

- 1 Log off all Symposium Web Center Portal agents from their PCs and phonesets.
- 2 Restart the TAPI server.
- 3 Log on all Symposium Web Center Portal agents to their PCs and phonesets.

Note: If you do not follow these steps to restart the TAPI server, when the agent logs on and accepts or declines a transaction, you may receive the following error message: *TAPI line error. Invalid agent state.* The agent must re-log on to his or her PC to restart the TAPI desktop monitor; otherwise, it will not function correctly.

- 4 Click OK, and then press Not Ready on the phoneset.

Error stating an invalid agent state

If you use the same TAPI lines assigned to the agent for any other telephony service, the TAPI Desktop monitor and the agent's phoneset may not remain synchronized.

To synchronize the TAPI Desktop monitor and the phoneset on the agent PC

- 1 When the following TAPI error message appears, `TAPI line error. Invalid agent state.`, click OK.
- 2 Change the status of the phoneset to the desired setting (Not Ready or Ready depending on the status of the agent).

To restart the TAPI desktop monitor

If the transactions are not presented to agents, the TAPI desktop monitor may not be functioning correctly. You must restart the TAPI desktop monitor by logging the affected agents off their PCs, and then logging them back on.

- 1 From the Start menu, choose Shutdown.
- 2 Select Close all programs, and then log on as a different user.
- 3 When the logon window appears, log the agent back onto the PC.

OLEChannelWnd error message

If you are using Windows NT for the agent workstation, you may see the OLEChannelWnd error message when you shut down the agent workstation. In this case, you can use the Telephony Client shutdown utility before you shut down the workstation.

The Telephony Client shutdown utility is found on the agent's PC at Start/Programs Nortel Networks - Symposium Web Center Portal/Telephony Client/Telephony Client Shutdown.

DTH pop-up dialog box does not appear

If the dialog box that indicates that there is an incoming transaction does not appear or appears but is delayed, you should verify that

- the TAPI server is running properly. For more information, refer to the TAPI documentation.
- the network is working properly
- Symposium Web Center Portal data is not staying too long on the TAPI server and the switch. The DTH waits 20 minutes for a call to be connected. The time the data stays on the TAPI server and the switch must be longer than the time it takes for the DTH to connect to a call. You can solve this problem by changing the call data lifespan on the TAPI server.
- The Agent Roaming Configuration of the agent is populated with the correct data. To view the data, go to Start → Programs → Nortel Networks-Symposium Web Center Portal → Telephony Client → Agent Roaming Configuration.
- Ensure the agent is configured correctly as a TAPI Client of the TAPI server. To disable the agent as a client go to Start → Run → TCMSETUP /c /d. To enable the agent as a client, go to Start → Run → TCMSETUP /c <TAPI Server Name>.
- Ensure the TAPI lines and users are configured properly. For more information, refer to your TAPI documentation.

To change the call data lifespan for TAPI 2.3

- 1 On the TAPI server from the Start menu, choose Programs → Symposium Service Provider for M1.
- 2 Click Preview Database.
Result: The Database Configuration window appears.
- 3 Click Provider.
- 4 Change the Call Data Life Span parameter to a higher value.

Accepting and declining a transaction

To avoid problems with the accept/decline dialog box, ensure that the features on the switch and Symposium Call Center Server for Symposium Web Center Portal agent phonesets do not change the status of the phoneset when the agent answers the phone. For example, you must ensure that the Symposium Call Center Server and the switch do not automatically change the status of the phoneset to Not Ready or OnHold when the agent answers the phone. For more information, refer to the Call Presentation Class information in the Symposium Call Center Server documentation and your Switch documentation.

TAPI server considerations

When you are working with the TAPI server, keep in mind that

- you must verify Meridian Link Services Manager (MLSM) link on Symposium Call Center Server and the TAPI server
- if you must restart the MLSM link, you must restart the TAPI server
- when you restart the TAPI server, you must restart the DTH on the Symposium Web Center Portal server. You must also log off all of the Symposium Web Center Portal agents, and then log them back on. For more information, refer to “To restart the TAPI desktop monitor” on page 397.

For more information about troubleshooting the TAPI server, refer to the TAPI documentation.

TAPI network issues

If, during periods of high-volume network traffic over the CLAN, you notice that the pop-up notification window does not appear, or you experience communication problems with the TAPI call data over the network, you can try to reduce network congestion with a dedicated CLAN to be used only between the Symposium Web Center Portal server, the TAPI server, and the agent PCs.

No transaction details displayed due to a TAPI call data lifespan timeout

Symposium Web Center Portal uses a feature within TAPI to attach data to each call. The feature is required to display the pop-up dialog box on the desktop with the transaction details.

The call data lifespan is the defined amount of time before the transaction detail pop-up information expires. If the TAPI call data lifespan times out before the call is presented to an agent, the transaction pop-up dialog box will not display on the agent’s desktop. Instead, an “empty” phone call is presented.

This problem may arise for the following reasons:

- The time taken to route a call to an agent was longer than the lifespan of the TAPI call data. In this case, you must extend the lifespan time on the TAPI server.
- The TAPI server was restarted after the DTH presented calls.
- A TAPI server failure occurred after the DTH presented the calls. In this situation, the calls are not lost because they were never presented to an agent's desktop. The calls remain within the Symposium Web Center Portal database where they are scheduled for presentation by the TxnMonitor at a later stage. For more information, refer to "Configuring the Transaction Monitor" on page 178.
- The TAPI call data lifespan timeout is less than the Ring Timeout (20 minutes). The call lifespan times out before the call is answered.

To change the lifespan of call data on the TAPI server, see "To change the call data lifespan for TAPI 2.3" on page 398.

DTH presents calls in bursts and then remains idle

The DTH presents calls to the CDNs continuously until all the DTH TAPI lines are in use. Once this occurs, the DTH waits until a line becomes free to present another call.

Any new transactions that arrive in the Symposium Web Center Portal database are not presented to the agents until the current queued calls are dealt with (no matter what the priority). This includes the next 20 transactions the DTH has already chosen to present to Symposium Call Center Server.

Example

If a call center has 40 DTH TAPI lines configured, after two cycles of the DTH, 40 calls are made (one for each transaction) to Symposium Call Center Server. If the system is configured for Keep Mode and the agents are available, these calls are routed to the available agents, and all the DTH TAPI lines remain busy.

The DTH then retrieves up to 20 more transactions (depending on the number of transaction in the database). The DTH waits until one of the original calls is dealt with, and then when a line becomes idle, it can place a call for one of the new set of transactions.

New transactions arriving in the database may have to wait until all 60 transactions (20+20+20) have calls placed for them before they are picked up by the DTH. It is, therefore, critical that the number of agents available and the balance between the agents and the skillsets is correct.

Available agents do not receive transactions

The DTH will not acquire any new transactions until it successfully routes each of its current 20 acquired transactions through Symposium Call Center Server to an available agent. The following scenarios may result in long wait times for this to be completed:

- If some of the transactions that the DTH is trying to present are to be routed to a skillset to which too few agents are assigned, it may take time before these transactions are processed and the DTH is free to acquire more transactions. Meanwhile, agents assigned to other skillsets may have to wait until the DTH runs again before they receive new transactions to process.

You must ensure that the agent/skillset assignment is balanced properly. Symposium Call Center Server Call Routing can determine how long calls are queued.

- If the next 20 acquired transactions all belong to a single skillset, agents assigned to another skillset will not be presented with new transactions to process.

You must ensure that the agent/skillset assignment is balanced properly.

- If the transactions in the queue are assigned to a skillset with no active agents, the DTH TAPI line may never successfully place a call (unless the Symposium Call Center Server Call Routing is configured to handle this situation). The DTH will drop the call after the Ring Timeout period (20 minutes).

You can configure Symposium Call Center Server Call Routing to drop any calls presented to a skillset with no active agents. This releases the DTH TAPI line. The administrator can use the administration tool to temporarily remove the CDN for the skillset to which no one is assigned and prevent the DTH from attempting to process any transactions for that skillset. For more information, refer to the Symposium Call Center Server documentation.

- If a call center has an existing backlog of transactions that are in the acquired state, and Symposium Web Center Portal is receiving few new

transactions, the TxnMonitor will control the number of transactions that may be routed to available agents.

Example

If there are no new transactions in the database, the TxnMonitor runs and converts the status of up to 100 “Acquired” transactions to “New.” The DTH polls for new transactions every 5 seconds. If there are sufficient agents to process 100 transactions in 6 minutes, then there will be 4 minutes where the agents have no New transactions presented to them, since the DTH only finds more “New” transactions to acquire the next time the TxnMonitor runs (minimum 10 minutes) and updates the status of up to 300 further transactions.

If the number of new transactions arriving in the database falls below the expected rate, the maximum number of transactions that the DTH can process is 300 per 10 minutes (this may be less depending on the status or number of the backlogged transactions). To change the rate at which the agents are handling the transactions, you can change the number of agents dedicated to handling these transactions.

Transactions handled by TxnMonitor not presented to DTH in order of priority

The TxnMonitor runs regularly to maintain the database transactions in valid states. You must not use the TxnMonitor as a tool to be applied when large backlogs build up. The TxnMonitor does not sort the timed-out acquired transactions by priority before it selects the transactions (up to 300) to convert for the DTH.

Example

A call center decides it wants to process all of the priority 1 transactions in the database, and it has 5 agents assigned to the appropriate skillset. Once all the “new” transactions are processed, only transactions updated by the TxnMonitor appear as “new.” The TxnMonitor updates up to 300 transactions in a timed-out acquired state to “new.” The DTH sorts the transactions by priority (and transaction number); however, if all of these transactions are priority 2, the current active agents are not configured to deal with them. If the priority 2 transactions are in the queue, and then TxnMonitor subsequently converts more transactions of priority 1 to “new,” the DTH does not attempt to acquire any further transactions until the calls for its current 20 transactions are placed.

In this scenario, the Symposium Web Center Portal administrator may want to temporarily remove the CDN for the lower priority skillset so that the DTH does not attempt to process the priority 2 transactions. You may still experience a delay since the TxnMonitor has a maximum conversion rate of 300 per 10 minutes.

Database troubleshooting

Introduction

This section lists problems that may occur with the database. For each problem, it suggests a possible solution.

Cannot access the database

If the system cannot access the database, perform the following tasks:

- Ensure that the following Sybase services are running:
 - Sybase BCKServer SWRS_SQLSRV
 - Sybase SQLServer SWRS_SQLSRV
- Ping the server using DSedit (for more information, refer to “Installation checkpoint” on page 97).

Updating the database information

If the database user name or password is changed, or the database name is changed, you must manually update the `swcp_agentinterface.ini` file located on the Symposium Web Center Portal server (`..\Inetpub\wwwroot\Agent\config`), and the `database.ini` file located on the External Web server (`..\Program files\Nortel Networks\Symposium Web Center Portal\WebCollab\Config`).

Also, if the database does not work with the Web Communication Manager, you must check that the port number setting is correct.

Text of the database.ini file

When installed, the `swcp_agentinterface.ini` file looks like this:

```
# The database driver class (needs to be changed for Oracle
etc.
DRIVER=com.sybase.jdbc2.jdbc.SybDriver

# The driver protocol
PROTOCOL=jdbc:sybase:Tds
```

```
# The host name (or host name) of the database server
HOST=

#The port the database server listens on
PORT=5005

# The username of the database user
USER=admin

# The password of the database user
PASSWORD=adminpwd

# The name of the database
DATABASE=SWRS_DB

#Number of connections to open initially (not used)
POOL=3
```

Note: For more information, refer to your switch documentation.

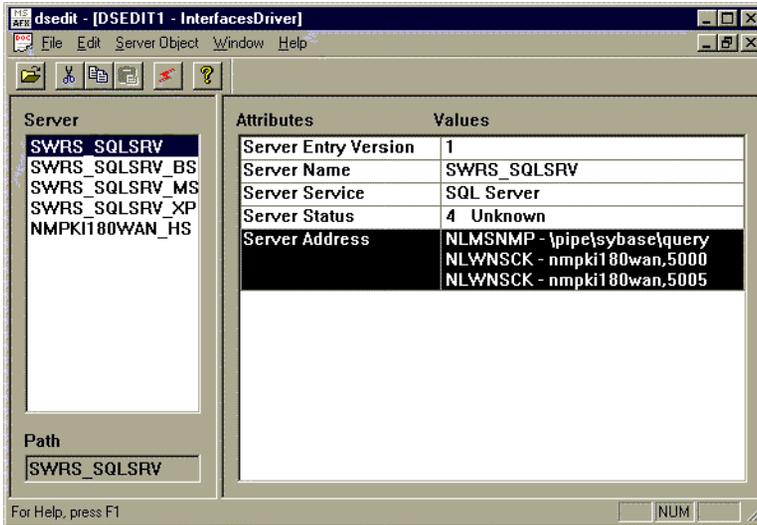
Verifying the port number setting

If a new database server is installed (when there are existing servers), a new port number may be assigned. If this is the case, you must manually update the Database.ini file.

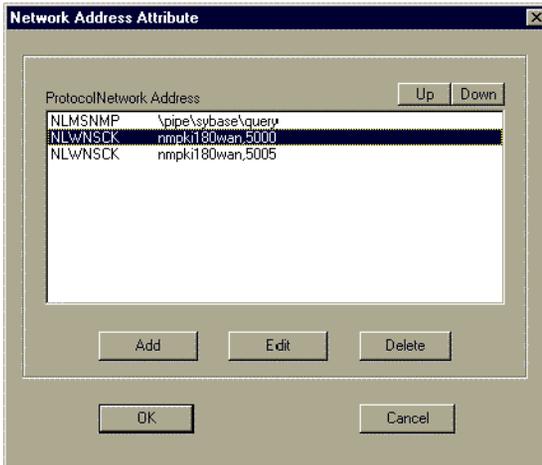
To check the port number setting

- 1 On the Windows Start menu, on the database server, click Start → Programs → Sybase → DSEdit.
Result: The Select Directory Service Window appears.
- 2 Click OK.

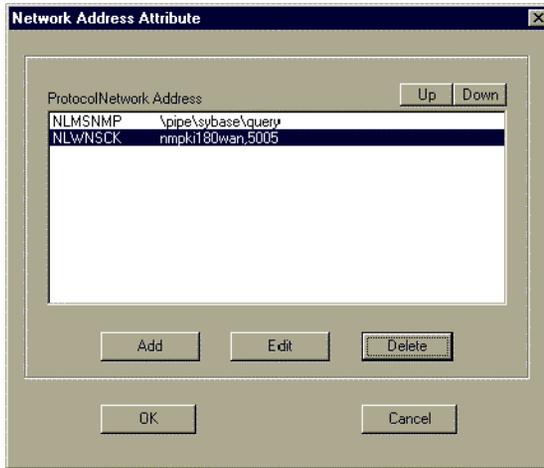
Result: The dsedit window appears.



- 3 Double-click Server Address.
- 4 Look at the entries for SWRS_SQLSRV.
- 5 Select the entry with port 5000.



- 6 Click Delete.



- 7 Click OK.
- 8 Restart the computer.

License problems

Introduction

Follow the instructions in this section if an administrator or agent experiences license problems when logging on.

Background

Information on the location of the FLEXlm License Manger is contained in the NTSalic.dat file. Both the Administrator and Agent logon applications access this file at runtime. NTSalic.dat is installed as part of the Symposium Web Center Portal Administrator component on the Symposium Web Center Portal server. This file should be set up correctly during the Symposium Web Center Portal installation. However, if logon problems indicate a problem with the license, you must complete the following procedure.

To check the NTSalic.dat file

- 1 In the Windows system directory (..\WINNT\System32), open the NTSalic.dat file.
- 2 Check the location of the FLEXlm License Manager. It looks like this:

```
SERVER <HOST NAME> NORTEL=  
DAEMON nortelvd NO_DAEMON_PATH  
USE_SERVER
```

where <HOST NAME> is the host name of the computer (all uppercase) where the FLEXlm License Manager is installed and running.

- 3 If necessary, change the host name to the correct address (all uppercase), and then save the file.

Administrator troubleshooting

Introduction

This section lists problems that can occur with the Administrator. For each problem, it suggests possible solutions.

Note: To use all the administration features, you must log on to the PC as a domain administrator or add a user attempting to access the reports to the administrator's group.

Cannot log on to the Administrator

If you cannot log on to the Administrator, verify that the database is running. For more information, refer to "Cannot access the database" on page 405.

ODBC error

If you receive an ODBC error, wait a few minutes, and then perform the task again. This error appears when there is a delay in the database startup.

Symposium eMail Manager troubleshooting

Introduction

There are two primary tools for dealing with problems that can occur while using Symposium eMail Manager:

- Symposium eMail Manager Analyzer is an analytical support tool that helps to identify configuration and network issues. It runs as a wizard-type application and produces a summary report containing configuration details.
- The Symposium Web Center Portal Event Log Configuration window allows you to choose where you want to store the eMail Manager events for the system.

The Analyzer tool should identify issues, such as inability to connect to the mailboxes or incorrect configuration of the e-mail service. In addition, it gives background information that is useful in debugging issues that can arise. When running this application, you should stop the Symposium eMail Manager service and exit from the e-mail client.

To run Symposium eMail Manager Analyzer

- 1 Browse to your `..\Program Files\Nortel Networks\Symposium Web Center Portal\Administrator\Mail Monitors` folder. Double-click `Analyzer.exe`.
- 2 The wizard steps through the most common difficulties with Symposium eMail Manager. When you are prompted, enter the logon credentials for the Symposium Web Center Portal Administrator.

Result: At the end of the wizard, a report is generated. The report file is named `Analyzerxxxxxxx.log`, where `xxxxxxx` represents the current date in the format `mmddyyyy`.

Note: You can also run the wizard from the command prompt with the following arguments:

```
>Analyzer /s -Usysadmin -Pnortel
```

Sample Analyzer output

Symposium Web Center Portal

=====

Symposium eMail Manager 3.0 Analyzer

Date May 24, 2001

Time 10:16

Hardware Analysis

Computer Name: SWCPNGN02

Processor: GenuineIntel x86 Family 6 Model 7 Stepping 3

System Identifier: AT/AT COMPATIBLE

Total Disk Space (Application Partition): 2,147 Megabytes

Free Disk Space (Application Partition): 1,059 Megabytes

Total Physical Memory: 255 MB

Physical Memory Used: 193 MB

Total Page Size: 366 MB

Page Used: 39 %

Operating System Analysis

Operating System: Microsoft Windows NT 4.0

Service Pack: Service Pack 6

Build: 1381

Software Analysis

Windows Folder: C:\WINNT\

System32 Folder: C:\WINNT\System32\

Temp Folder: C:\TEMP\

Common Files Folder: C:\Program Files\Common Files\

Administrator Path: \Admin.exe

IMS Path: \Mail Monitors\Inbound\IMS.exe

OMS Path: \Mail Monitors\Outbound\OMS.exe

VBAMAP32.dll File: Date Modified: 6/20/00 3:00:16 PM Size:
15 KB

WMSUI32.dll File: Date Modified: 10/14/96 10:38:00 AM Size:
791 KB

Installed Components

The following Nortel Networks product components have been identified on this server:

Miner

Symposium Web Center Portal

Symposium Web Center Portal Administrator

Symposium Web Center Portal Agent Interface

Symposium Web Center Portal Database

Symposium Web Center Portal PEP

Symposium Web Center Portal Services

Symposium Web Center Portal Telephony Service

TxnMonitor

TxnMonitor_update

Email WinNT Service Details

Display Name: Symposium eMail Manager

Internal Name: MMSrv

Image Path: C:\Program Files\Nortel Networks\Symposium Web Center Portal\Administrator\Mail Monitors\MMSrv.exe

Log On As: LocalSystem

IMS Path: "C:\Program Files\Nortel Networks\Symposium Web Center Portal\Administrator\Mail Monitors\InBound\IMS.exe"

OMS Path: "C:\Program Files\Nortel Networks\Symposium Web Center Portal\Administrator\Mail Monitors\OutBound\OMS.exe"

Local Mail Profiles

The following Mail Profiles have been identified on this server:

Settings

Mail Profile	Password	Mapped	Skillset	Logon	Status	ServerID
BillingDesign	abc123	Billing	Logon	Failed	0	
PricingDesign	abc123	Pricing	Logon	Failed	0	

Database Logon Status (OMM): OK

Database Logon Status (IMM): OK

Inbound Attachment Folder:

\\swcpngn02\SWRSMail\Attachments\InBound

Outbound Attachment Folder:

\\swcpngn02\SWRSMail\Attachments\OutBound

Default Outbox:

IMS Polling Interval (Seconds): 600

OMS Polling Interval (Seconds): 10

IMS Undeliverable String:

IMS Callback Delay (Minutes): 1

IMS Log Level: Log Informational Messages

IMS Lookup Matching Customer Record: True

IMS Email Protocol: POP3

IMS Only Creates Transactions: False

IMS Distributed Server ID : 0

OMS System Administrator:

OMS Log Level: Log Informational Messages

OMS Email Protocol: POP3

OMS Include Transactions ID's In Outbound Email: True

- - - End of Report - - -

E-mail event logs

If you experience any problems with the Symposium eMail Manager, refer to the following event log files:

- Email IMS.log – Logs informational and error messages related to the inbound mail.
- Email OMS.log – Logs informational and error messages related to the outbound mail.
- Email SISEmail.log – Logs informational and error messages.
- Email PSIEmail.log – Logs informational and error messages, as well as POP3 SMTP server messages.
- Email POP3SMTP.log – Logs only the POP3 SMTP server messages.

Undelivered e-mails taking up space in the database

Not all cases of auto-generated bounce messages (for example, undelivered e-mail out of office replies) sent to a Symposium Web Center Portal call center are captured by Symposium Web Center Portal. Symposium Web Center Portal will auto-acknowledge (if enabled) these undelivered e-mail/out of office replies, causing a loop to occur, which can lead to loss of database space.

You must monitor for occurrences of bounced messages sent to the call center, and identify the undelivered string in the subject field of the bounced e-mail. By updating the IMS.ini file with the undelivered string of the bounced e-mail, the administrator can stop the looping of bounced e-mail messages characterized by the respective undelivered string.

- 1 From Windows Explorer on the Symposium eMail Manager Server, browse to the directory `..\Program Files\Nortel Networks\Symposium Web Center Portal\Administrator\Mail Monitors\InBound`.
- 2 Open IMS.ini in a text editor, such as Notepad.
- 3 Find the following section:

```
[Undeliverable String]
Value0=Undeliverable
Value1=Delivery Report (failure)
Value2=Delivery Failure
```

Value3=Returned mail

Value4=Unknown Recipient

Value5=Non Remis

- 4 Continue adding entries under the Undeliverable String section. In the above example, the next string is prefaced with Value6=.
- 5 Save and close the file.

Symposium eMail Manager cannot log on to a mailbox

Perform the following tasks if you cannot log on to a mailbox:

1. Log on to the mailbox using an e-mail client.
2. Verify that the domain name, account name, mailbox name, and password match the e-mail server settings.
3. Verify that the mail server is running and that it is set up properly. For more information, refer to “Configuring e-mail for Symposium Web Center Portal” on page 229.
4. Check the log files for any error messages. IMS.log and OMS.log contain logon failure messages.
5. Use telnet to verify the user names on the server (see the procedure below).

To use telnet to verify the user names on the server

- 1 From the Start menu, choose Run.
- 2 Type **telnet <mailserver> 110** (where 110 is the port number for POP3), and then press Enter.
- 3 Log on to the mail server. Use the following commands:
 - User <username>
 - Pass <password>

Result: If you are successful, a message like this one appears:

```
+OK X1 NT-POP3 Server mail009 (IMail 7.04 997957-16)
user billing
+OK send your password
pass abc123
+OK maildrop locked and ready
```

If you are not successful, a message like this one appears:

```
+OK X1 NT-POP3 Server mail009 (IMail 7.04 998172-17)
user billing
+OK send your password
pass 123abc
-ERR Invalid userid/password
```

Symposium Web Center Portal inbox did not receive e-mail

Verify that the e-mail server is working properly.

No transaction was created by IMS

- 1 Verify that the IMS is running and that it can access the database. Look in the IMS.log file for database access errors.
- 2 Make sure that the following services are running:
 - SQLServer_SWRS_SQLSRV
 - BCKServer_SWRS_SQLSRV
 - Symposium eMail Manager
- 3 Ensure the directory storing the inbound attachments is shared correctly. For more information, refer to “To share inbound e-mail attachment directories” on page 126.

E-mails are not deleted from the mailboxes

If the system is not deleting e-mails from the mailboxes, ensure that

- IMS is running
- IMS is able to log on to the inbound mailboxes

- IMS can access and modify the database to insert or update the transaction details

You must ensure that the database is running, and then try to log on to the mailboxes using an e-mail client or telnet.

E-mail is deleted from the mailbox but the agent cannot view the transaction

The agent may experience problems viewing transactions when

- the database cannot extract the transaction details because the transaction is not saved in the database, or the database is preventing the extraction of the transaction details. You must verify the IMS/database logs to confirm this.
- the transaction is in the Acquired state and the DTH cannot find an agent for the transaction, so the DTH holds the transaction in this state. Try to access the transaction again. You can also shut down the DTH and perform a manual refresh to view the transaction.

System fails to send an auto acknowledgement or an e-mail response to the customer

Verify the following:

- Auto acknowledgement is set up in the Symposium Web Center Portal Administrator.
- SMTP service is running on the e-mail server.
- Symposium eMail Manager service is running on the Symposium Web Center Portal server.
- The customer's e-mail address is correct.

DLL initialization error

If the Symposium eMail Manager service account does not have administrator privileges, you receive the IMS.exe - DLL Initialization Failed error message.

Web Communication Manager troubleshooting

Introduction

This section provides solutions to problems you may encounter with the Web Communication Manager. This section also describes the debugging solutions found at <http://<hostname>/WebCollab/Debug/index.jsp>, where *hostname* is the name of the External Web server.

The first section of this web page allows you to simulate a web session. You do not need to install any of the other Symposium Web Center Portal components to test this feature. To test that it is working, you can sign on as the customer and the agent. You can then perform the following tasks:

- Ask for live help.
- Assist a waiting customer.
- Create a callback web transaction.
- Join a specific transaction.

You can then use the other section of the debugging web page to view

- initialization status
- trace setup
- connection list
- dump system state
- server environment
- database connection pool
- session state
- JVM memory
- perform any database query
- run garbage collection

Initialization status

The Initialization Status page is divided into three sections—initialization message, database parameters, and system options.

The initialization message at the top of the page lets you know if the Web Communication Manager is initialized. If it is not initialized, you can verify that the database parameters are correct. You can also verify that the system options that you defined during the installation are correct.

To verify the database parameters

- 1 Verify that the host name of the Symposium Web Center Portal server in the DB URL.
- 2 Verify that the port number is 5005 in the DB URL.

Note: If the port number is not correct, it will not be able to connect to the database.

Trace setup

Use the Trace Setup found at <http://hostname/WebCollab/Debug/index.jsp>, where *hostname* is the name of the External Web server, to modify the trace setup properties. You can modify the trace level, the log file name, the location of the log, and the maximum size of the file. The trace log is `..\Program Files\Nortel Networks\Symposium Web Center Portal\WebCollab\logs\WebCollabtracelogs.txt`.

View connection list

The View Connection List page provides information about the chat sessions that are taking place. On this page, you can view

- the ID number of the session
- the start time of the session
- the Skillset to which the customer was directed
- the state of the session (for example, Web On Hold)
- the URL from which the customer entered the session

- the name of the agent responding to the customer

Dump system state expensive

The Dump System State page allows you to view the connection ID, the pages that the customer viewed, and the Text Chat of a session in progress.

Server environment

The Server Environment page allows you to view all the environment variables in the JRun JVM.

Database connection pool

The Database Connection pool page allows you to view the number of database connections open in the Web Communication Manager at any one time.

Session state

The Session State page displays all sessions that are not involved in a transaction.

JVM memory

The JVM Memory page allows you to view the amount of memory being used by the system and the amount of memory not being used.

Perform any database query

The Perform Any Database Query page allows you to run SQL queries on the database.

Run garbage collection

You can run the garbage collection to free up memory in the system.

Customer Interface troubleshooting

Introduction

This section lists problems that can occur with the Customer Interface. For each problem, it suggests possible solutions.

The Customer Interface cannot access the database

When the Customer Interface cannot access the database, you must change the database user ID and password.

To edit the Global.asa file to access the database

- 1 Edit the Global.asa file in the Inetpub\wwwroot\swcp-ci folder, and change “admin” to “webinsert,” and “adminpwd” to “webinsertpwd.”
- 2 Save and close the file.
- 3 Start the Internet Explorer browser.
- 4 Type the URL **<hostname>/swcp-ci/plain/login.html**.
- 5 Log on with a valid customer ID.

Customer receives an error when submitting a form

If the customer receives error messages when he or she submits a form, verify that the IUSR_MACHINE account is not a local account. If it is a local account, then you must perform the following tasks:

- Change the anonymous logon account on the IIS server from IUSR_MACHINE to a domain account that is recognized by both computers. Ensure that the account you create has logon locally enabled on the IIS computer.

Note: If you decide to use the IUSR_MACHINE account later, ensure that the password provided in the Internet Service Manager matches the password provided for this account in the User Manager tool. If the passwords do not match, you will encounter Access Denied error messages.

- Add a local account to the remote computer that has the same user name and password as the IUSR_MACHINE account on the IIS. Ensure that this account has access to the database. If the passwords do not match, you will not have access to the database.

NTFS permission

You may find that you have restricted Windows NT File System (NTFS) permission that does not provide you with sufficient privileges to the IUSR_MACHINE account. You can verify that you have the correct permission settings by temporarily adding the anonymous logon account (IUSR_MACHINE) to the administrator group through the User Manager. If the CI continues to work properly, then you must change the permission setting for all the required files in the registry.

ATTENTION

You must remove the anonymous logon account from the administrator group through the User Manager after you perform this test to avoid security issues.

Problems accessing the Symposium Web Center Portal customer web site

You may experience trouble accessing the Symposium Web Center Portal customer web site if the following services are not running on the External Web server:

- IIS
- World Wide Web Publishing Service
- JRun Admin Server
- JRun Default Server

Problems submitting a transaction

If you encounter problems submitting a transaction, ensure that all of the required Windows NT services are running on the Symposium Web Center Portal server.

Cannot start chat session

If you cannot start a live chat session, it may be that there is no agent available, or an agent is assigned to the wrong skillset.

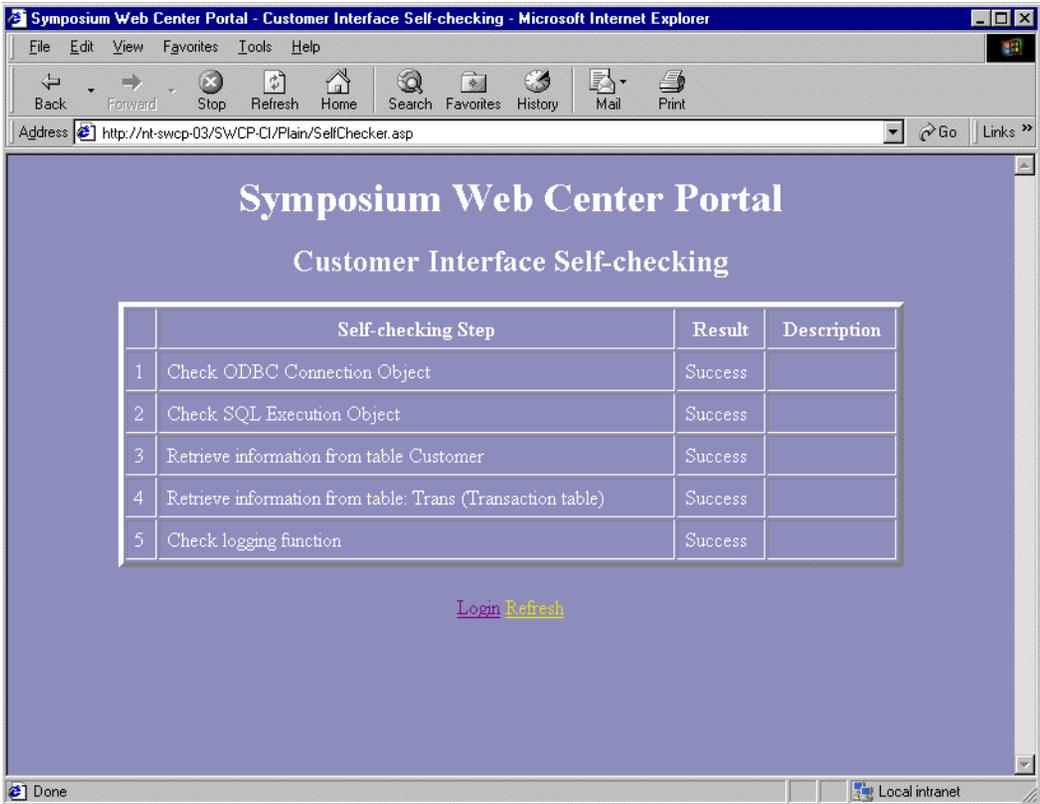
Customization issues

You can run the CI Self Check tool to identify whether an issue is caused by the customization of the customer interface.

To run the CI Self Check tool

On the External Web server, go to <http://<hostname>\SWCP-CI\plain\SelfChecker.asp>

Result: The Customer Interface Self-checking window appears.



Agent Interface troubleshooting

Introduction

This section lists problems that may occur with the Agent Interface. For each problem, it suggests a possible solution.

Unable to log on to the Agent Interface

If you encounter problems logging on to the Agent Interface, verify that

- you have a license and you have not exceeded the limits of the license
- the agent was created in the Symposium Web Center Portal Administrator
- the user ID and password match
- the Agent virtual directory was created
- the web application is running
- IIS is running
- the World Wide Web service is running
- the database is running

The agent's screen freezes after selecting Load All

If the call center experiences very high numbers of transactions, then you must disable the Load All feature.

To disable the Load All feature

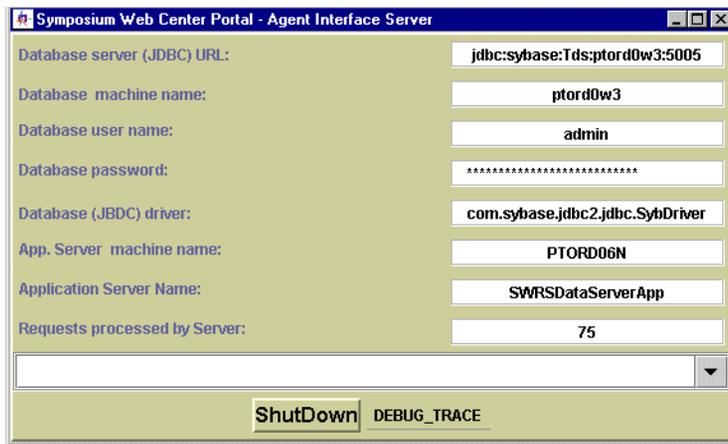
- 1 Open the UserDef.vbs file. It is usually found in c:\inetpub\Agent, where c: is the applications drive.
- 2 Change the value assigned to CONFIG_LOAD_ALL_OPT from 1 to 0.
- 3 Save the changes you made to this file.
- 4 Close the UserDef.vbd file.

Agent Interface fails to connect to the database

If the Agent Interface fails to connect to the database, shut down and restart the Symposium Web Center Portal - Agent Interface Server.

- 1 On the Agent Interface server desktop, maximize the Symposium Web Center Portal - Agent Interface Server window.

Result: The Symposium Web Center Portal - Agent Interface Server window appears.



- 2 Click ShutDown.
- 3 Click Restart.

Shutting down the Telephony Client

If you must shut down and restart the Telephony Client, you can do so on the agent PC through the Start menu.

To shut down the Telephony Client

From the Start menu, choose Programs → Nortel Networks - Symposium Web Center Portal → Telephony Client → Telephony Client Shutdown.

Note: You do not need to restart the computer.

To restart the Telephony Client

From the Start menu, choose Programs → Nortel Networks - Symposium Web Center Portal → Telephony Client → Telephony Client Start.

The agent's transaction window is empty

The agent's transaction window may be empty when one of the following events occurs:

- The database does not contain a New, New Reply, or Pending transaction.
- The agent is not assigned to the correct skillset to view the transactions.
- The database is not running.
- You do not have a license, or you exceeded the limits for your license.

Icons are missing from the Agent Workbook

If you are missing any of the icons on the Agent Workbook, verify that you have a license and that the limits for your license were not exceeded.

Agent responses are not updated

If you find that the agent responses are not updated, verify that the database is running. For more information, verify the database log file.

Internet Explorer troubleshooting

Introduction

This section provides a solution if you have problems starting Internet Explorer.

Problems starting Internet Explorer

If you experience problems starting Internet Explorer, ensure your version of Internet Explorer meets the minimum requirements as specified in “System requirements” on page 30.

Problem with customized Internet Explorer

The TAPI Desktop Monitor did not recognize that a Symposium Web Center Portal agent was logged on; as a result, the pop-up dialog box did not appear. This occurs when the title for the Agent Workbook does not match the title as it is defined in the registry.

For example, the Internet Explorer indicated in the registry is Microsoft Internet Explorer provided by Nortel Networks, whereas the title in the Internet Explorer window was Microsoft Internet Explorer. This causes the TAPI Desktop Monitor to react as though the agent is logged off.



ATTENTION

Only the network administrator should make changes in the registry.

You must change the Registry Entry Value in the following registry key:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Nortel  
Networks\TapiDesktopMonitor\1.0
```

Registry Entry Value:
Microsoft Internet Explorer provided by Nortel Networks



Power outage during installation

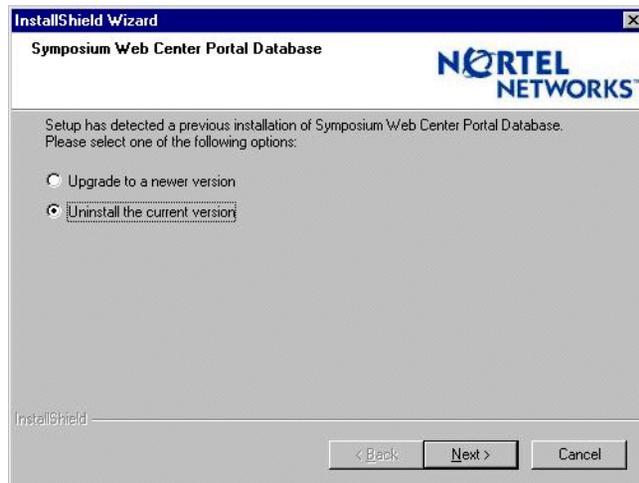
Introduction

You must take the proper precautions to prevent power failures. If the server is powered off (for example, accidental power failure) in the middle of an installation for any component, you must uninstall the component using the Symposium Web Center Portal CD-ROM, and then perform a fresh install of the component. For more information about installing Symposium Web Center Portal, refer to Chapter 3, “Installing the Symposium Web Center Portal software.”

To recover from a power outage during Symposium Web Center Portal Database installation

- 1 Use the Symposium Web Center Portal CD-ROM to uninstall the Symposium Web Center Portal database.
 - a. Insert the Symposium Web Center Portal CD-ROM.
 - b. Click Database.

Result: The InstallShield Wizard upgrade or uninstall window appears.



- c. Select Uninstall the current version, and then click Next.

Result: The system prompts you to confirm your choice.



- d. Click Yes.

Result: The component is deleted.

- 2 Clean up any files left behind (if necessary).

Note: Do not use Windows Add/Remove Programs since you cannot predict at which stage the installation was interrupted. Not all necessary uninstall files might have been installed properly to allow a successful uninstall through Windows Add/Remove Programs.

- 3 Uninstall Sybase.
- 4 Perform a fresh install of Sybase. See “Installing Sybase Adaptive Server Enterprise” on page 87.
- 5 Perform a fresh install of the Symposium Web Center Portal database. See “Installing the Database component” on page 92.

To recover from a power outage during installation of other Symposium Web Center Portal components

ATTENTION

Do not attempt to continue with an interrupted installation once the server is running—doing so may cause the server to become unstable and behave unpredictably. Uninstall that component and perform a fresh install.

For all Symposium Web Center Portal components, except the database, uninstall and then reinstall that particular component.

- 1 Uninstall the particular component using the Symposium Web Center Portal CD-ROM.
- 2 Perform a manual cleanup (if necessary) of any files that were left over.

- 3** Perform a fresh install of the component.

Synchronizing time in Symposium Web Center Portal

Introduction

To prevent timing issues with scheduled customer requests, you must synchronize the time between the Symposium Web Center Portal server and the External Web server.

Time synchronizing options

There are two transaction options available when configuring a Symposium Web Center Portal solution:

- push-mode transaction handling, (DTH/TAPI enabled)
- pull-mode transaction handling

Each mode requires a different approach to time synchronization due to the different servers involved.

Push-mode solution (DTH/TAPI enabled) and synchronization

Nortel Networks recommends that the Symposium Call Center Server or the Symposium Express Call Center server time is used as the reference clock because this server synchronizes its time directly with the M1 switch. You must synchronize the following servers with the Symposium server:

- Symposium Web Center Portal server
- External Web server (on which you installed the Customer Interface component)
- TAPI server

Note: The M1 administrator typically handles M1 time and date changes. Check with your M1 administrator for details relating to scheduled time and date changes due to daylight saving time (if these changes are applicable to your time zone).

Push-mode daylight saving clock adjustment requirements

Disable the automatic clock adjustment for daylight saving time on all servers that synchronize with the Symposium server. All servers will then match the Symposium server's clock adjustment setting for daylight saving time.

Pull-mode solution (DTH/TAPI enabled) and synchronization

Nortel Networks recommends that the following server is synchronized with the Symposium Web Center Portal server:

- External Web server (on which you installed the Customer Interface component)

Pull-mode daylight saving clock adjustment requirements

Nortel Networks recommends that the automatic clock adjustment for daylight saving time setting is the same on both the External Web server and the Symposium Web Center Portal server (if the setting is applicable to your time zone). It is permitted to have daylight saving enabled on the External Web server and Symposium Web Center Portal database server in this configuration.

Synchronizing time with the net time command

The following is a standard Windows NT 4.0 and Windows 2000 command that synchronizes server time over a network:

```
net time \\computername /set /y
```

When executed from the command line, the command sets the computer's time to match the time on [*computername*].

Scheduling commands with the AT scheduler

The AT scheduler is a standard Windows NT 4.0 and Windows 2000 component that schedules the batch file to execute the net time command.

Your network administrator may use some other method to schedule the execution of commands within your network environment. Contact your administrator for assistance.

The following is a sample of the command necessary to schedule batch file execution:

```
AT 05:00 /EVERY: M,T,W,Th,F,S,Su "timesync.bat"
```

The above command schedules timesync.bat to run daily at 5:00 a.m.

To implement time synchronization

- 1 Log on to the Symposium Web Center Portal server using the Administrator user ID.
- 2 Launch the NT command line application.
- 3 Create a batch file called timesynch.bat in C:\ (the root folder of the C: drive).
- 4 Edit the file, and then enter the net time command:

```
net time \\computername /set /y
```
- 5 Replace the name "computername" with the name of the remote server.
- 6 Using the Windows AT scheduler, schedule the execution of this batch file to execute daily, outside normal business hours of operation (for example, 05:00).
- 7 If you are running a 24-hour center, schedule this synchronization for the least busy hour of system operation.

Result: When the execution of this batch file calls the net time command, the computer time is synchronized with the time on the remote server.

Security notes for time synchronization

Some security implications relating to this command are outlined below:

- right to change the system time
- specific user account requirements
- remote authentication of user

Examine the security notes section for requirements that may apply when scheduling the net time command.

Right to change the system time

When executing the net time command, the user must have the right to change the system time.

On Windows NT 4.0 and Windows 2000 servers, this right is given to the following default security groups:

- Administrators
- Server Operators or Power Users (depending on domain membership)

You must use an administrator account when using the AT scheduler to schedule the net time command.

Specific user account requirements

Some of the servers in your particular solution may require that you log on with a specific user account for correct system operation, maintenance tasks, and so on. If your system has this requirement, then this user should be used to add the batch file execution to the AT schedule. Assign this user the rights to change the system time as detailed in this document.

For more information, refer to your Windows documentation.

Remote authentication of user

When operating a domain server and executing net time to a domain server, it is not necessary to provide authentication. Authentication is automatic within the domain.

When operating a domain server and executing net time to a non-domain server, it is necessary to provide authentication via a local account on the non-domain server. For example, to allow the TAPI server to net time with the server in Symposium, Call Center Server, you must use a Symposium Call Center Server user account to provide authentication as the server in Symposium Call Center Server is a non-domain server.

Nortel Networks recommends that in order to perform this authentication on your domain server, you must create a permanent drive mapping to a share point on the non-domain server.

On the server in Symposium Call Center Server there is a default share named support that may be mapped to provide authentication. When prompted, enter the username and password for the NGenSys user.

Contact your administrator for the password of the NGenSys local account on the server in Symposium Call Center Server.

To give permission to a user account to change the system time

Windows NT 4.0

- 1 From the Administrative Tools program group, launch the User Manager utility.
- 2 From the User Manager menu, select Policies/User Rights.
- 3 In the User Rights Policy window, on the Right drop-down menu, select Change the system time.
- 4 Click Add, and then select the desired user account from the drop-down list labeled Names.

Result: The user account will have the right to change the time on this system after the next logon.

Windows 2000

- 1 From the Start menu, choose Programs → Administrative Tools → Computer Management.
- 2 On the Computer Management window, click Computer Configuration → Windows Settings → Security Settings → Local Policies → User Rights Assignment.
- 3 On the settings window, click Change the System Time Policy Setting.
- 4 Click Add to open the Select Users and Groups window.
- 5 Highlight the user, and then click Add.
- 6 Click OK.

Result: The user account will have the right to change the time on this system after the next logon.

Chapter 12

Installing and configuring pcAnywhere

In this chapter

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Changing pcAnywhere caller passwords	455
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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.

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

Installing pcAnywhere

Introduction

One licensed copy of pcAnywhere is provided for the server on the Symposium Web Center Portal application CD-ROM.

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



CAUTION

Risk of system failure

Before you install pcAnywhere, make sure that the server PC is using the correct video driver. Failure to do so can result in the appearance of a blue screen after pcAnywhere installation or after use of pcAnywhere for operations such as file transfer. For more information, refer to the pcAnywhere web site at www.symantec.com/pcanywhere/.

To install pcAnywhere

- 1 Log on to the Symposium Web Center Portal server as **Administrator**.
- 2 Insert the Symposium Web Center Portal CD into the CD-ROM drive.
- 3 Copy the pcAnywhere folder from the Symposium Web Center Portal CD onto your computer.
- 4 Browse to C:\PcAnywhere\Pca32\CD\Disk1, where C: is the drive on which you copied the pcAnywhere folder.
- 5 Double-click Setup.exe.
Result: The Symantec installation wizard window appears.
- 6 Click Next.
Result: The License agreement appears.
- 7 Select I accept the terms, and then click Next.
Result: The Customer Information window appears.

- 8 Enter your User Name and Organization, and then click Next.
Result: The Setup Type window appears.
- 9 Select Typical, and then click Next.
Result: The Ready to install the program window appears.
- 10 Click Install and wait until Setup wizard completes.
Result: The Symantec Support Solutions window appears.
- 11 Click Next.
Result: The Windows Solutions window appears.
- 12 Click Next.
Result: The How to Reach Us Online Information window appears.
- 13 Click Next.
Result: The Some Additional Options window appears.
- 14 Clear all check boxes, and then click Next.
Result: The Registration window for pcAnywhere appears.
- 15 Click Skip.
Result: The program prompts for confirmation.
- 16 Click Yes.
Result: The following message appears: *Symantec pcAnywhere successfully installed.*
- 17 Click Finish.
Result: You are prompted to restart the server PC.
Note: If you are installing pcAnywhere on a single processor, you must restart the computer. If you are installing pcAnywhere on a dual processor, you do not need to restart the computer.
- 18 Continue with the next procedure.

To update the Windows registry for multi-processor platforms

To avoid problems during pcAnywhere operation on multi-processor systems, you must add an entry in the Windows registry under pcAnywhere software.

- 1 Click No to restart the server PC later.
- 2 In the Windows Explorer, navigate to the folder E:\Third Party\Symantec\Installs\MultiProc (where E: is your CD-ROM drive).
- 3 Double-click AddProcMask.reg.
Result: A message informs you that the information in the file has been successfully entered into the registry.
- 4 Click OK, and then remove the CD from the CD-ROM drive.
- 5 From the Windows Start menu, choose Shutdown.
Result: The Shut Down Windows dialog box appears.
- 6 Select Restart, and then click Yes.
Result: The server PC restarts. If the server hangs, restart it manually.

Configuring pcAnywhere

Introduction

This section describes how to configure pcAnywhere to accept remote connections. Ensure that the network properties and remote caller settings are correct. Then go to “Changing pcAnywhere caller passwords” on page 455.

Configuring the network settings and remote PC caller accounts

The procedure “To configure pcAnywhere as a Host PC” on page 448 defines the SwcpDist and SwcpDesign 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 SwcpDist and SwcpDesign. Use the same passwords for the pcAnywhere SwcpDist and SwcpDesign caller passwords that you plan to use for the Windows NT SwcpDist and SwcpDesign accounts. This simplifies the remote logon process.

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

To start pcAnywhere for the first time

- 1 Log on to Windows as **Administrator**.
- 2 From the Windows Start menu, choose Programs → Symantec pcAnywhere.
Note: If you are asked to register pcAnywhere, select Skip, and then choose Yes when asked to confirm.
Result: The Smart Setup Wizard window appears. The system prompts you 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 Select COM1, and then click Next.
- 6 Click Finish.
Result: The pcAnywhere main window appears.

To configure pcAnywhere

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

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

- 1 Exit pcAnywhere.
- 2 From the Start menu, choose Run.
- 3 Type **%Systemroot%**, and then click OK.
- 4 Navigate to Profiles\All Users\Application Data\Symantec\pcAnywhere.
- 5 Right-click the directory icon, choose Properties, and then click the Security tab.

- 6 Click Permissions and, for Administrators, select Type of Access: Full Control.
- 7 Click OK to save changes.
- 8 Click OK to close the Properties window.

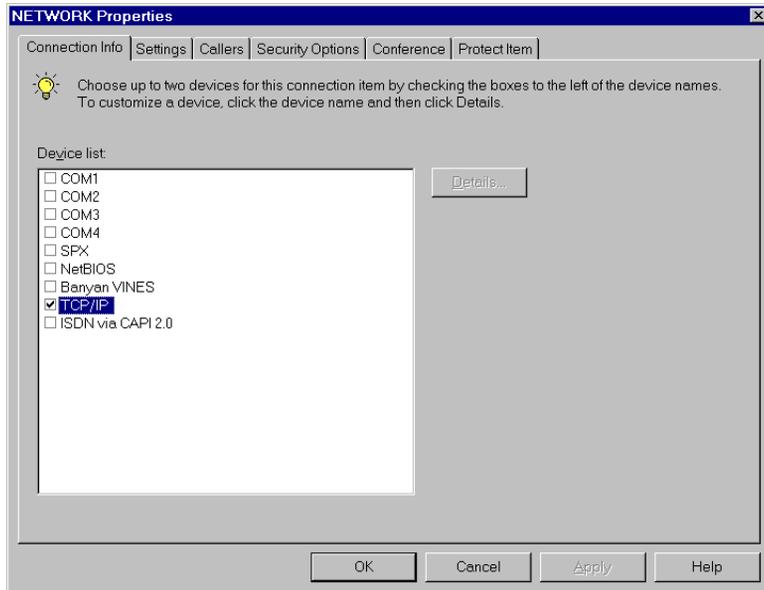
To set the video mode

- 1 In pcAnywhere, choose Tools → Application Options.
- 2 Click the Host Operation tab.
- 3 For Video mode, ensure that the option selected in the drop-down list is Default.
- 4 Click Apply to save the changes.
- 5 Click OK to exit.

To configure pcAnywhere as a Host PC

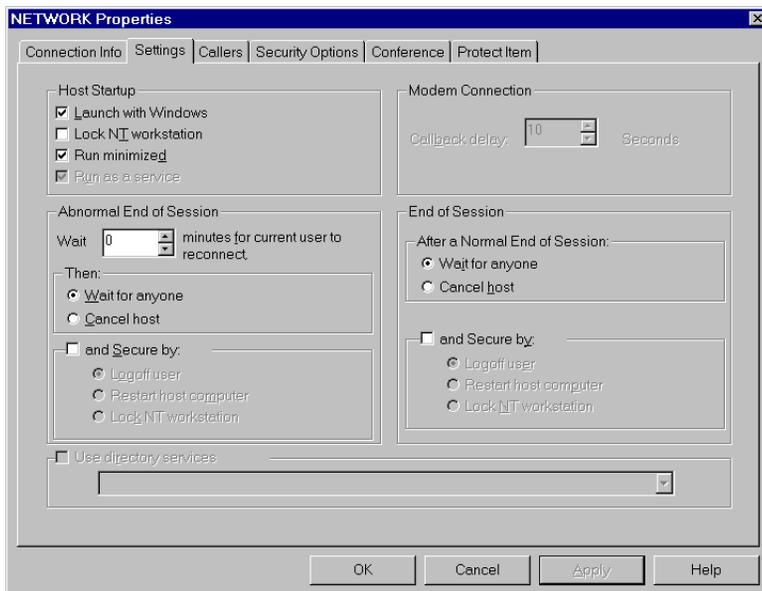
- 1 Select Be a Host PC.
- 2 Right-click the Network icon, and then choose Properties.
Result: The Network Properties property sheet appears.
- 3 Click the Connection Info tab.

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



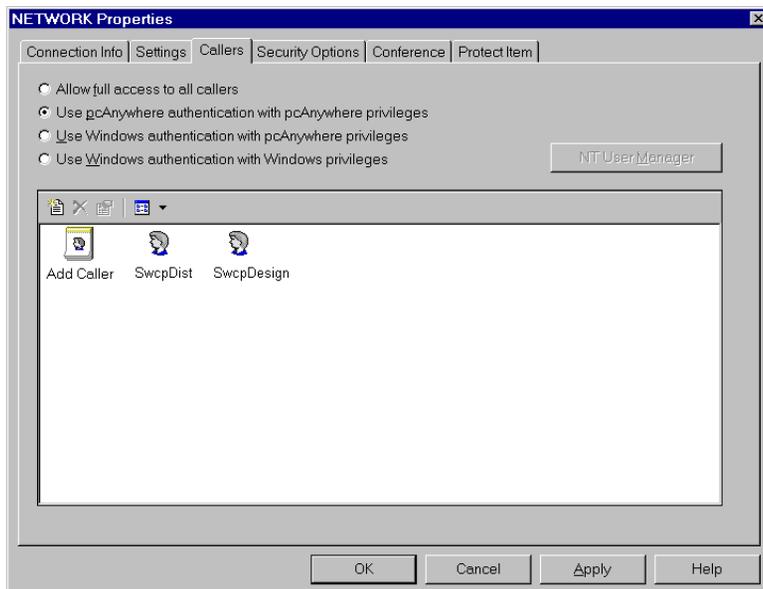
- 5 Click Apply to save changes.
- 6 Click the Settings tab.

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



- 8 Click Apply to save changes.
- 9 Click the Callers tab.

10 Select Use pcAnywhere authentication with pcAnywhere privileges.



Note: If the SwcpDist and SwcpDesign caller icons have already been created, then skip to step 18.

- 11** Place the mouse in the blank area and right-click, and then select New to add a new caller.

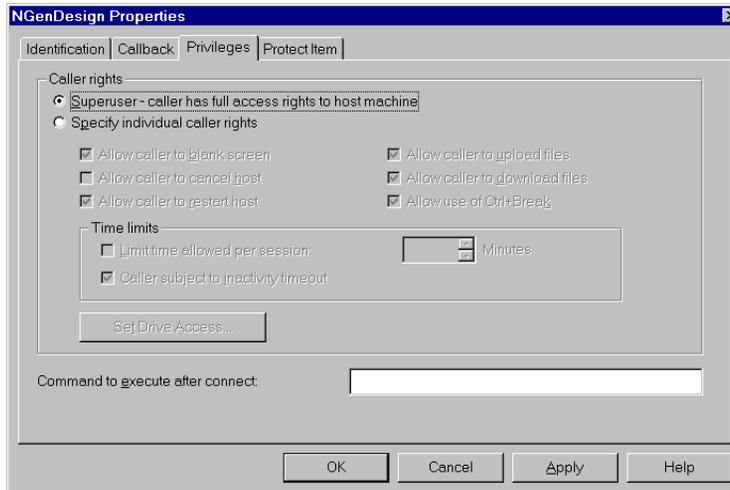
Result: The New Caller Properties window appears.

- 12** Type the Login name **SwcpDist** and the password **ntdist**.
- 13** In the Confirm Password box, type the **ntdist** password again.
- 14** Click OK to save the changes.

Result: The system returns to the Callers Tab.

- 15** Right-click the NewCaller icon, select Rename, and then type **SwcpDist**.
- 16** Repeat steps 11 to 15 for the SwcpDesign account, using the password **Nortel**.
- 17** Right-click the SwcpDesign caller icon, and then select Properties.
- 18** Click the Privileges tab.

- 19 Select Superuser, as shown in the following example:



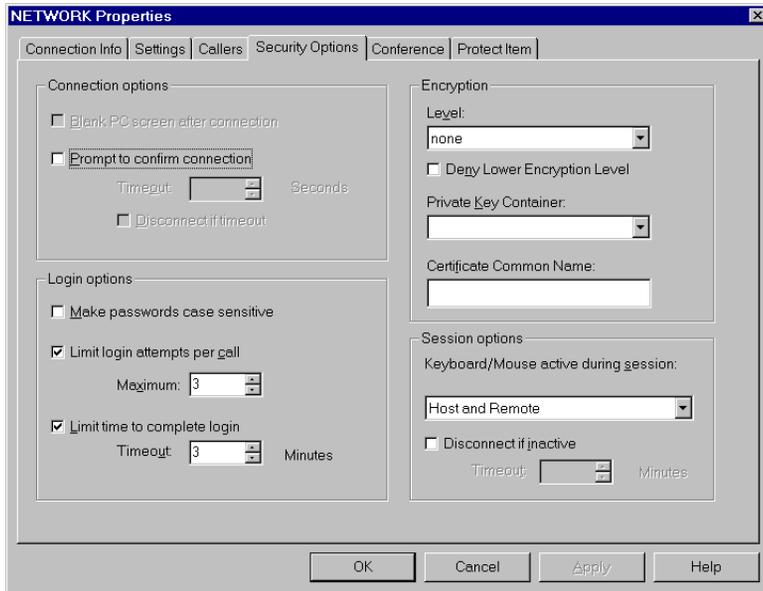
- 20 Click Apply to save the changes.

- 21 Click OK to exit the Properties window.

Result: The NETWORK Properties property sheet appears.

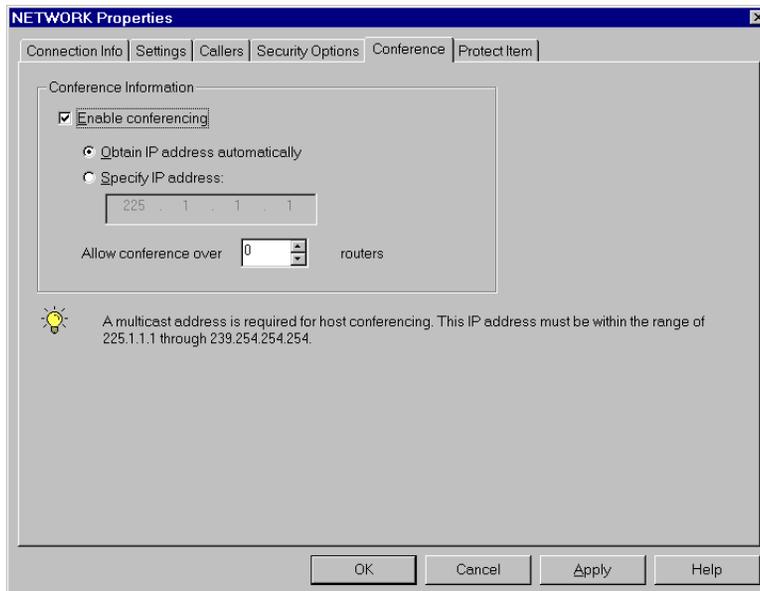
- 22 Click the Security Options tab.

23 Ensure that the settings are as shown in the following example:



24 Click the Conference tab.

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



- 26 Click the Protect Item tab.

Note: If you want to assign a password to control who can modify the Network icon settings, then enter a password on this screen.

ATTENTION

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

- 27 Click OK to apply all pcAnywhere Host PC settings.

Changing pcAnywhere caller passwords

Introduction

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

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

To change passwords

- 1 Log on to Windows 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 will begin a pcAnywhere session.
- 5 From the File menu, choose Properties.
Result: The NETWORK Properties property sheet appears.
- 6 Click the Callers tab.
- 7 Click Specify individual caller privileges.
- 8 Right-click the SwcpDist icon. Then select Properties.
- 9 Click the Identification tab.
- 10 In the Password box, type a new SwcpDist password.
- 11 In the Confirm Password box, type the SwcpDist password again.
- 12 Click Apply.

- 13** Click OK.
- 14** Right-click the SwcpDesign icon. Then select Properties.
- 15** Repeat steps 8 to 13 to assign a new password to SwcpDesign.
- 16** Click OK to return to the main pcAnywhere window.
- 17** Exit pcAnywhere.

Uninstalling pcAnywhere

To uninstall pcAnywhere

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

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

- 1 From the Windows Start menu, choose Settings → Control Panel.
- 2 Double-click Add/Remove Programs.
- 3 Select Symantec pcAnywhere, and then click Add/Remove.
Result: The Symantec pcAnywhere Setup window appears.
- 4 Click Next.
Result: The Program Maintenance options window appears.
- 5 Select Remove, and then click Next.
Result: The Remove the Program window appears.
- 6 Click Remove.
- 7 When the process completes, click Finish.
- 8 From the Windows Start menu, choose Shutdown.
Result: The Shut Down Windows dialog box appears.
- 9 Select Restart, and then click Yes.
Result: The server shuts down and then begins starting up.
Note: If the system does not restart, you must restart it manually.

Appendix A

Symposium Web Center Portal telephony components

In this appendix

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Overview

Introduction

This appendix provides information about the telephony components used with Symposium Web Center Portal. This section also provides an overview of TAPI and how it works with Symposium Web Center Portal, the work flow logic of the DTH, configuring the switch, and information about the TxnMonitor.

Symposium Web Center Portal Agent Thin Client and DTH Application

Introduction

One of the major enhancements to Symposium Web Center Portal Release 3.0 is the addition of a thin client-based Agent Interface and the introduction of the Dynamic Transaction Handler (DTH). The DTH functionality allows for the “push” of a web request and e-mail request to an agent using telephony-based methods. The thin client Agent Interface simplifies and shrinks the agent client, reducing the impact on the agent’s desktop environment. The thin client is based on Microsoft’s Active Server Page (ASP) technology.

General description of ACD blending

- The DTH treats Symposium Call Center Portal transactions and Automatic Call Distribution (ACD) telephony events as the same type of transaction (blended media on the desktop).
- The DTH maps ACD queues with Symposium Web Center Portal skillsets.
- The DTH can place Symposium Web Center Portal web-based transactions in the ACD queue by creating a TAPI call with attached data. This allows Symposium Web Center Portal transactions to “blend” with ACD traffic for presentation to the agent’s desktop.
- An event (either an ACD call or a Symposium Web Center Portal transaction) can be presented to the agent when the agent’s set is logged on and ready.
- The Symposium Web Center Portal transaction is pushed to the agent’s desktop web browser.
- The agent uses the standard Symposium Web Center Portal user interface presented via Active Server Page technology.
- The DTH is comprised of agent- and server-based components.
- The TAPI server and the Nortel Networks TAPI Service Provider (TSP) are required to allow the Symposium Web Center Portal transaction in the ACD queue.

- The DTH can be integrated with existing Symposium Web Center Portal implementations and can be added to future releases of Symposium Web Center Portal.

DTH work flow logic

The following list describes the work flow logic of DTH for Symposium Web Center Portal and ACD-blended media to the agent's desktop.

Note: If a system time change is required, you must stop DTH first, change the system time, and then restart DTH.

1. The DTH should be installed on the same computer as the Symposium Web Center Portal server software and the Symposium Web Center Portal database.
2. The DTH must reside on a server in the same domain as the TAPI server or have a trust relationship with the TAPI server.
3. The DTH cannot run on the same computer as the TAPI server.
4. Customers submit data through the Symposium Web Center Portal Customer Interface component.
5. The Symposium Web Center Portal Dynamic Transaction Handler queries the database to find the oldest transactions with “new” status. The order by which the transactions are sorted in this query is based on the skillset priority.

This method of handling transactions is valid for the transactions submitted in the database since the polling took place. You can change the polling interval using the DTH Configuration Utility.

The Dynamic Transaction Handler presents transactions to the skillsets based on the priority of the skillset. You define the priority of the skillsets in the Symposium Web Center Portal Administration Utility. For more information, see “Managing skillsets” on page 210.

Transactions assigned to a skillset with a higher priority are presented to the agents first. Transactions assigned to skillsets with the same priority are presented to agents in the order in which they are received.

6. The DTH places a call to the appropriate ACD based on the skillset. The DTH communicates with the TSP component causing a call to be generated to the appropriate ACD queue. The ACD is configured through the Symposium Web Center Portal administrator.

The number of TNs, DNAs, and line devices are configured by the customer. For more information, refer to “Planning and engineering” on page 23.

7. Subsequently, the transaction number and other unique information is attached to the call by the DTH. Other information includes any server-configured data to be pushed at the client TAPI component.
8. The TAPI Desktop Monitor component monitors the ACD line using the desktop TAPI component. When the call is offered on the agent’s phoneset, the call offering event is processed and the call structure is examined to determine if Symposium Web Center Portal-specific call data is attached.

Notes: If the agent does not answer the phone, the normal ACD mechanisms requeue the call to the next available agent. This does not have an effect on the Symposium Web Center Portal transaction other than explicit ACD functionality (which must be defined for customers in the Meridian ACD and Symposium Call Center Server environments).

The client should decide if forced answer is the appropriate action for his or her particular business rules. Forced call answer has no effect on the design and implementation of the components, only on minor portions of the call flow. The implementation must allow for variable call flow to function properly.

9. If there is Symposium Web Center Portal data attached to the call, the TAPI agent component determines what to do with the agent’s phone to prevent more CTI events from occurring. Additional call data can be attached to determine whether to force the agent into the web transaction, or whether to present an accept/decline option. This is fulfilled with the thin client by pointing the agent’s browser at one of two basic initial pages. You can program these pages to wait to change the state of the transaction upon entry or to wait for manual acceptance.
10. Subsequently, portions of the call data are “posted” to the initial Symposium Web Center Portal ASP. Active Server Pages provide a thin client interface to Symposium Web Center Portal agent functionality. Call data posted to the ASP allows the DTH component to automatically push

the page onto the agent's desktop in his or her browser (Microsoft Internet Explorer 5.0 or higher is supported).

11. A pop-up dialog box appears on the agent interface. The agent can accept or decline the transaction. The agent processes the request. When the Request/Transaction is completed, the TAPI Agent component makes the agent's phone ready to allow CTI events to occur again. At this time, the agent is ready to process the next blended request or phone call, depending upon which event occurs first.
12. The interaction with the agent and the Symposium Web Center Portal ASP interface addresses the following possibilities for call flow:
 - The ASP interaction can require the agent to accept the request depending on server-side configuration. This is a client-specific configuration.
 - The business process and work flow at the client site must require the agent not to leave unanswered or unattended Symposium Web Center Portal transactions open on the desktop when the agent sets his or her phoneset to Not Ready or Busy. If the DTH has pushed a request to the agent's desktop, then the thin client can be utilized to change the state of the transaction from new to presented. When the agent accepts the request, it is then usually marked as open. When the transaction is completed, the agent can leave it in a Pending or Closed state.
 - If there is no Symposium Web Center Portal data attached to the calling line ID (or other attached data), the ASP is used to communicate with third-party applications, and a dialog box appears. This additional feature is available from Cogent Professional Services and is not an out-of-box feature.

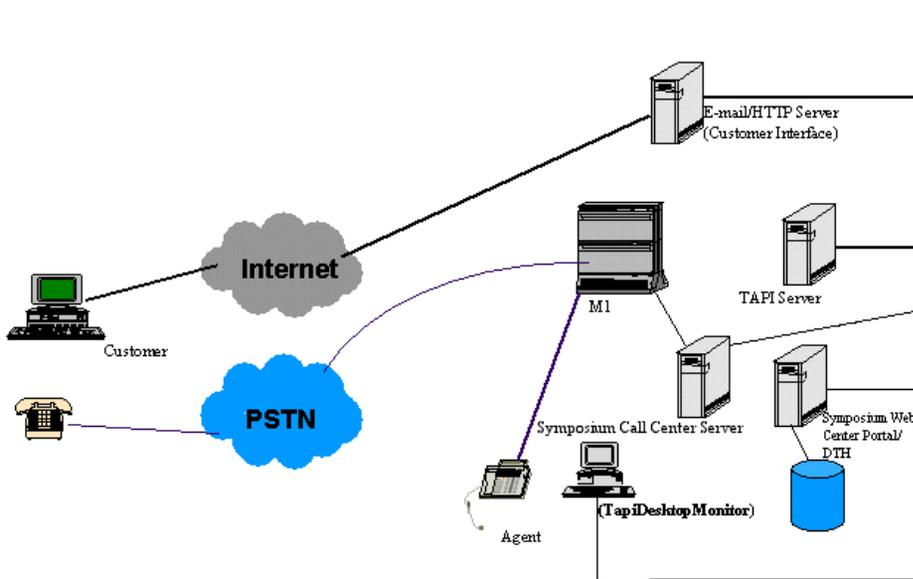
How TAPI works with the switch

Introduction

The following section describes various configurations of TAPI and the switch hardware.

TAPI in the Meridian 1 environment

The following diagram illustrates the architecture and components found in a typical Meridian 1 environment with the TAPI Server included:



Microsoft TAPI 2.1 on Windows NT

In conjunction with Microsoft TAPI 2.1 for Windows NT, the Symposium TAPI Server from Nortel Networks gives Meridian 1 users a sophisticated platform from which to run TAPI-compliant Windows desktop and BackOffice applications in client-server configurations. Symposium TAPI Server for

Meridian 1 greatly improves the cost and ease of implementing computer telephony integration (CTI) solutions that automate call center and knowledge worker tasks, as well as create new applications that provide competitive advantages.

Microsoft TAPI 2.0 and 2.1 architecture

TAPI is part of the Windows Open Services Architecture (WOSA), which encompasses a number of APIs providing application and corporate developers with an open set of interfaces to write applications and access services. As with other WOSA services, TAPI consists of two interfaces. Application developers write to an API; the other interface, the Service Provider Interface (SPI), is used in the case of TAPI to establish the connection to a specific telephone network.

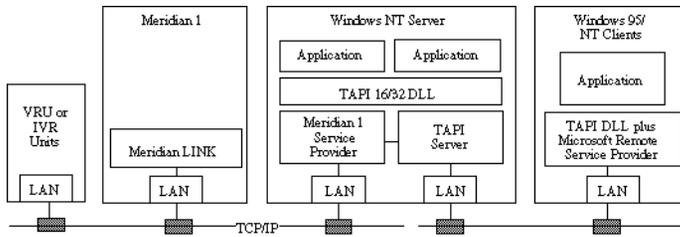
TAPI 2.0 allows Windows NT to function as a telephony client or as a telephony server. When functioning as a server, TAPI 2.0 supports TAPI-compliant applications running on the Windows NT platform, along with applications running on any network-connected Windows NT or Windows 95 client via TAPI 2.1 Remote Service Provider. This client/server application logically associates the telephone on a user's desktop with an application in networked PCs. In this configuration, users' desktops do not require special telephones, connectors, PC circuit packs, or new wiring. TAPI on Windows NT provides full 32-bit architecture designed for migration to future Windows 95 releases, as well as backward compatibility with 16-bit TAPI applications.

Symposium TAPI Server for Meridian 1 architecture

The Meridian Link provides Meridian 1 PBX call control and status over a TCP/IP link. The Meridian Link has a limited number of active connections. For a large LAN configuration, Symposium TAPI is used for telephony control on PC desktops.

Release 2 of Symposium TAPI Server provides two new innovations. The first is the ability to dynamically reconfigure the TAPI server database, improving the availability of TAPI services and significantly reducing administration costs. The second innovation is a configuration option that provides TAPI 2.x services where the Windows NT server directly connects to the Meridian 1 switch without a Meridian Link module. This direct-connect configuration provides a further reduction in startup cost, making it an ideal knowledge-worker solution.

The Meridian 1 configuration for TAPI 2.1 or Windows NT is shown in the following diagram:



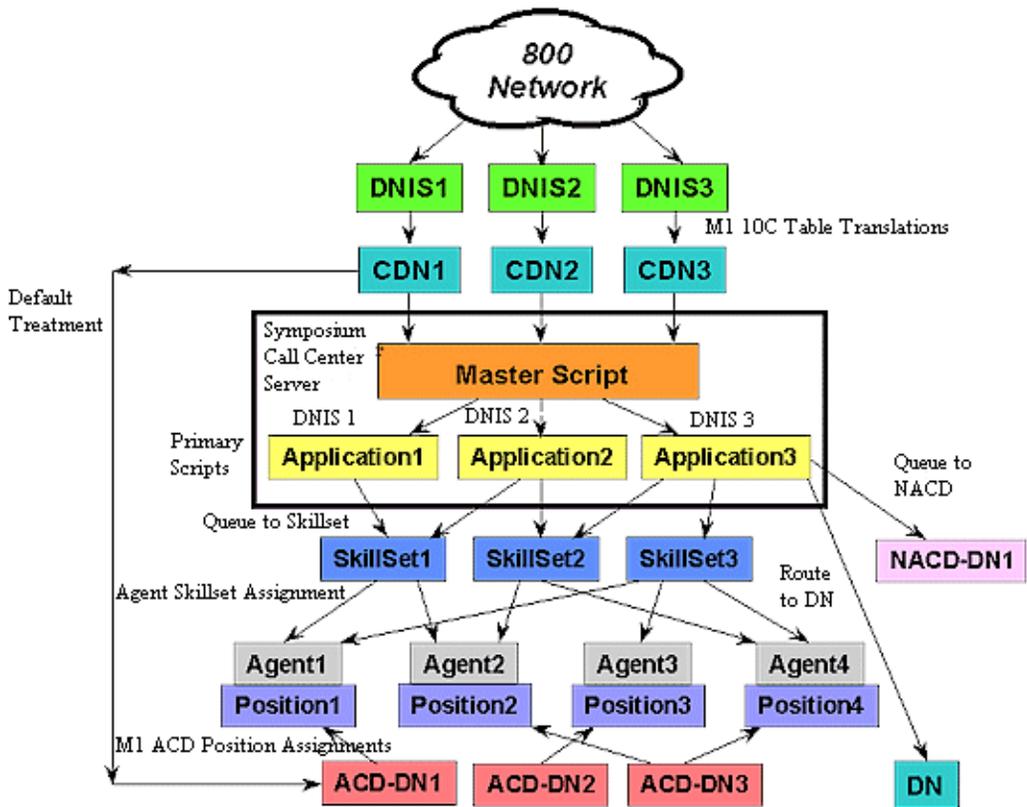
Symposium Web Center Portal and the Symposium Call Center Server environment

Introduction

Symposium Call Center Server-controlled CDNs queue and route web calls to the appropriate skillset, and, thereby, to the appropriate agent. To do this, several factors must be considered. CDNs must be mapped in the Symposium Web Center Portal administration section of the Symposium Web Center Portal Agent Setup. CDNs associated with Symposium Web Center Portal skillsets are ultimately controlled by Symposium Call Center Server and its scripts. The routing of calls sent to this CDN must be evaluated. Scripts must be written to allow for proper routing of voice calls per the voice call flows, and to allow proper routing of the Symposium Web Center Portal web calls. It is possible that the client will not route both types of calls in the same way.

Symposium Call Center Server call flow model

The diagram below is a graphical representation of the Symposium Call Center Server call flow model. The boxes labeled CDN represent the CDNs in question. Note that the call flow from each CDN goes directly to the Master script. For a complete discussion about Symposium Call Center Server script writing, see the Symposium Call Center Server *Installation and Maintenance Guide*, which is available from your distributor.



Prioritizing Symposium Call Center Server calls

Symposium Web Center Portal skillsets and Symposium Call Center Server skillsets are configured separately. When calls arrive at the CDN, the Symposium Call Center Server routing script assigns a priority to all calls when they are queued against a skillset. This priority determines the order in which calls are presented to the agents. You can use either dedicated skillsets or common skillsets to prioritize Symposium Call Center Server calls above Symposium Web Center Portal.

Dedicated skillsets

You must configure one or more CDNs and one Phantom DN for each of the

Symposium Web Center Portal skillsets for Symposium Call Center Server. The Phantom DNs are then call-forwarded to the CDNs.

You must configure skillsets in Symposium Call Center Server to correspond to each of the skillsets in Symposium Web Center Portal. In Symposium Call Center Server, you must define a new application that routes calls made to each Phantom DN to the corresponding Symposium Call Center Server skillset. When you assign agents to the skillsets, give the web-based skillsets lower priority than the voice-based skillsets.

Example

In this configuration, Phantom DNs 5601 and 5602 are forwarded to CDN 3600.

Configuration on Symposium Call Center Server:

```
Voice skillsets: sales, service
Web skillsets: web_sales, web_service
```

Agents:

```
Assigned to skillset sales with priority 5
Assigned to skillset web_sales with priority 2
```

Routing script:

```
For voice calls (to CDN 3601): Queue To Skillset sales
For web calls (to Phantom DNs 5601, 5602): Queue To
Skillset web_sales
```

Configuration of Symposium Web Center Portal:

Web skillsets:

```
web_sales: ACD-DN=5601
web_service: ACD-DN=5602
```

Common skillsets

You can use common skillsets for both voice calls and Symposium Web Center Portal transaction-related calls by configuring one skillset to handle both voice- and web-related calls. Then the routing script gives web calls (calls made to the Phantom DNs) lower priority than the voice calls.

Example

In this configuration, Phantom DN's 5601 and 5602 are forwarded to CDN 3600.

Configuration of Symposium Call Center Server:

Voice and Web skillsets: sales, service

Agents:

Assigned to skillset sales with priority 1

Routing script:

For voice calls: Queue To Skillset sales With Priority 5

For web calls: Queue To Skillset sales With Priority 2

Configuration of Symposium Web Center Portal:

Web skillsets:

sales: ACD_DN=5601

service: ACD-DN=5602

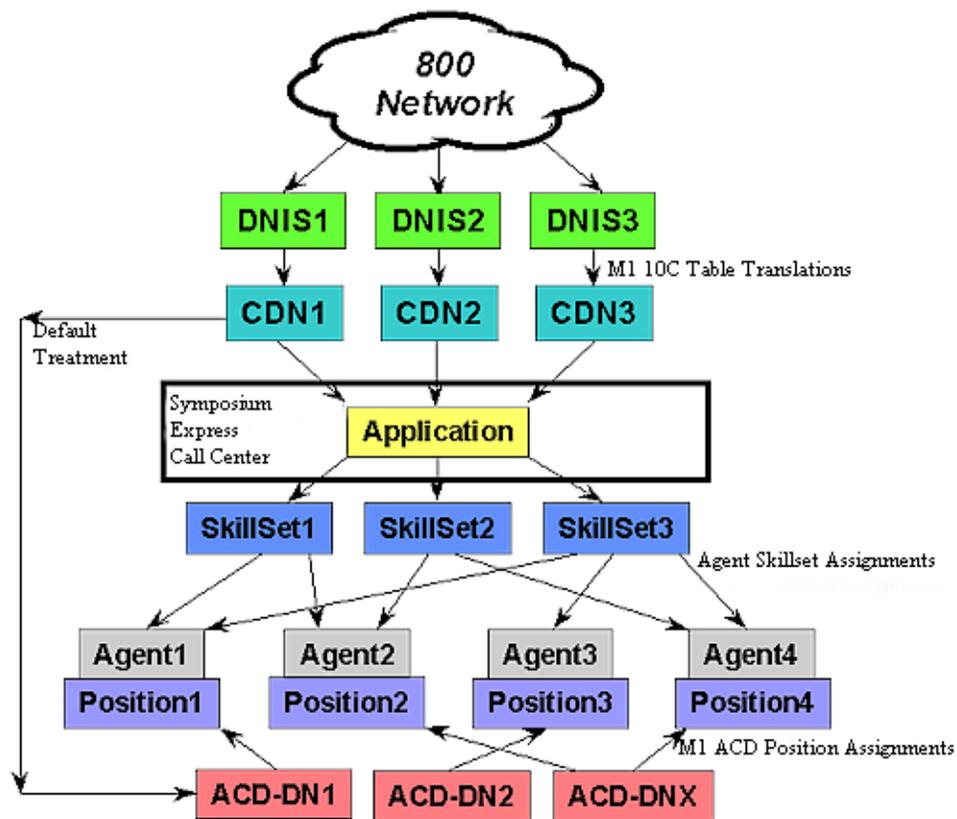
Symposium Web Center Portal and the Symposium Express Call Center environment

Introduction

Symposium Express Call Center server-controlled CDNs are used to queue and route web calls to the appropriate skillset, and thereby to the appropriate agent. To achieve this, several factors must be considered. CDNs must be mapped in the Symposium Web Center Portal administration section of the Symposium Web Center Portal Agent Setup. The CDNs associated with Symposium Web Center Portal skillsets are ultimately controlled by the Symposium Express Call Center and its scripts. Calls routed to this CDN must be evaluated. The Symposium Express Call Center setup must allow for proper routing of voice calls per the voice call flows and proper routing of the Symposium Web Center Portal web calls. Since the scripts of the Symposium Express Call Center are generated automatically after the setup, and configuration is completed in the Symposium Express Call Center (the scripts then are not permitted to be edited), the call flows for both types of calls must be mapped prior to the setup of the Symposium Express Call Center. You do not route both types of calls in the same way.

Symposium Express Call Center call flow model

The diagram below is a graphical representation of the Symposium Express Call Center call flow model. The boxes labeled CDN represent the CDNs in question. Note that the call flow from each CDN goes directly to the Master script. For a complete discussion about Symposium Express Call Center script writing, see the Symposium Express Call Center *Installation and Maintenance Guide*, which is available from your distributor.



M1 configuration

Configuring M1 for use with TAPI

M1 Option 11

- Verify that PBX is at Release 23.36 or greater and configured for Symposium Call Center Server.
- Configure Meridian Mail/Access for Voice processing under Symposium Call Center Server.
- Define Symposium Call Center Server-dedicated CDN and agent phonesets for testing.

Defining the agent phoneset

LD 11

In LD 11, define the agent phoneset to ensure that it is AST-enabled for Position ID of at least 00. If Position ID 01 is enabled, then telephony control on the personal DN functions is enabled. Additionally, IAPG must be set to 1 for messaging to move bidirectionally through MLSLINK.

Configuring a set for DTH

```
KEY tt ACD xxxx 0 zzzz // This is the agents ACD key - for
inbound calls from SCCS/M1 ACD
```

```
... // tt = key number, xxxx = TN, zzzz = position ID
```

```
tt SCR xxxx 0 // This is the agents SCR key - for outbound
calls, callback, and so on.
```

```
>ld 11
```

```
REQ new //
```

```
TYPE 2616
```

```
...
```

```
...
```

```
CLS FLXA //
```

```
...
```

```
AST tt //  
IAPG 1 //  
...  
...  
KEY tt SCR xxxx 0 //
```

```
****
```

Configuring a set for an Agent

```
>ld 11  
REQ new  
TYPE 2616  
...  
...  
CLS AGN/SPV ... .. //  
...  
SPID xxxx //  
AST tt tt//  
IAPG 1 //
```

Remember that the AST must be set for the TAPI lines. The DTH line cannot be an ACD line.

LD 22

In LD 22, ensure that SECU=YES.

If SECU=NO, the ELNK must be disabled and the change made in LD 17. No TAPI call control at the desktop can be effected until this setting has been completed. If this is not performed correctly, data corruption in the switch occurs in the form of watchdog 2000 messages.

Defining DTH phonesets

LD 11

In LD 11, define the DTH phoneset for key number 0. Additionally, IAPG must be set to 1 for messaging to move bidirectionally through MLSLINK. The DTH phoneset can be a real phoneset or a phantom phoneset. For more information, refer to “M1 phantom sets” on page 477.

LD 22

In LD 22, ensure that SECU=YES.

If SECU=NO, the ELNK must be disabled and the change made in LD 17. No TAPI call control at the desktop can be effected until this setting has been completed. If this is not performed correctly, data corruption in the switch occurs in the form of watchdog 2000 messages.

Capture and transfer data

When all of the phonesets are configured, the switch technician should capture three ASCII text files from the Meridian 1 PBX. The ASCII files that must be captured and moved to the TAPI server are

- LD 20 (TNB)
- LD 21 (RNB)
- LD 23 (CDN)

Note: Phonesets must be AST-enabled before LD 20 is pulled from the switch and read into the M1CFG database file.

If the Loads (LDs) do not convert properly, the files must be pulled and read in again until they are successfully uploaded to the TAPI database. You can configure information manually if necessary.

Overlay program	Request	Type
Overlay 20 (LD 20)	PRT	TNB - to list all the used terminal number blocks

Overlay program	Request	Type
Overlay 21 (LD 21)	PRT	RDB - to list route data blocks (customer number and route number)
Overlay 23 (LD 23)	PRT	CDN - to list all control directory number blocks configured within the switch

M1 phantom sets

There are two types of phantom Terminal Numbers (TNs). The first type is a true phantom TN—absolutely no hardware is required on the switch to go with the TNs that are being defined. This type only allows 500 sets without AST to be defined. A true phantom TN does not work with Symposium Web Center Portal.

The other type of phantom TN requires a network card, but no other hardware (shelf, line cards, and so on) is required. With this type, you can define Meridian 1 sets with AST. These phantom TNs are used with DTH.

You can perform verification by making calls using the TAPI browser.

Note: These are phantom TNs and not phantom calls.

For more information, see “Phantom Terminal Numbers” and “Predictive Dialing” in *X11 features and services* (Book 2 of 2), Standard 14.00, October 1997 (NTP 553-3001-305).

Configuring a phantom loop

Before you configure a phantom loop, you must ensure that a physical loop card is installed. A phantom loop is configured in the same way as a normal loop with the exception of a C preceding the loop number. You must not use the phantom terminal number N.

After configuration changes the loop card, the system must be reinitialized for the new settings to take effect. Phantom loops are only supported as local terminal loops. For more information, refer to the *X11 Software Features Guide*.

Configuring a phantom superloop

A phantom superloop is configured in the same way as a normal loop with the exception of a C preceding the loop number. When you use a Superloop, the phantom loops are defined in Overlay 97, and the SUPL number is preceded with a C.

Creating a phantom set

After configuring the phantom loop, you can set an AST Meridian 1 proprietary as a specific device group that can be controlled by applications. Therefore, when an application wants to originate a call on behalf of an idle TN, it can use a phantom TN. This idle TN is an AST Meridian 1 proprietary set, which is defined on a phantom loop. There is no upper limit on the number of devices per group defined by a phantom DN. The upper limit is the number of TNs that can be defined for the loop card. This number depends on the density of the loop card.

Note: You cannot create a phantom set for an ACD Agent.

Phantom TNs for Option 11

Option 11 does not support the phantom TNs that Symposium Web Center Portal uses to make outbound calls with the blending solution. If you are using Option 11, and the N call-blended agents are operating in the keep call mode, then you can configure N dummy phonesets. You can also use the Dummy DN solution.

In a Dummy DN configuration, phonesets are not required. The system places the lines associated with the absent phonesets (for example, during auditing) in a disabled state. The disabled state requires an administrator correction (for example, change the line from disable to enable). The class FLXA prevents the system from placing the line associated with the absent phoneset into a disabled state. The sample configuration below illustrates how to prevent a line from being disabled by the auditing routine—it requires a CLS of FLXA.

Note: When you create reports, use “Keep Call” rather than “Drop Call.” When you use “Drop Call,” the Symposium Call Center Server reports do not indicate the length of time an agent worked on a transaction.

Configuration of Dummy DN – LD 11

```
TYPE: 2616

TN 4 1 0 0 /* No physical card in slot 0 */
DES AGT
TN 004 1 00 00
TYPE 2616
CDEN 8D
CTYP XDLC
CUST 0
...
CAC_MFC 0
CLS ...
      VCE ... /* Define all TNs on the slot as VCE */
      FLXA ... /* Define all TNs as FLXA to turn off SSD
tests to the unit */
CPND_LANG ENG
HUNT
PLEV 02
SPID
AST 00 08 /* Dummy DN are Associated SeTs - acquired by
an application */
FCTB
...
KEY 00 SCR 2000
      01 TRN
      02 AO6
      03
...

```

15

DATE NO DATE

Configuring the TAPI server

Introduction

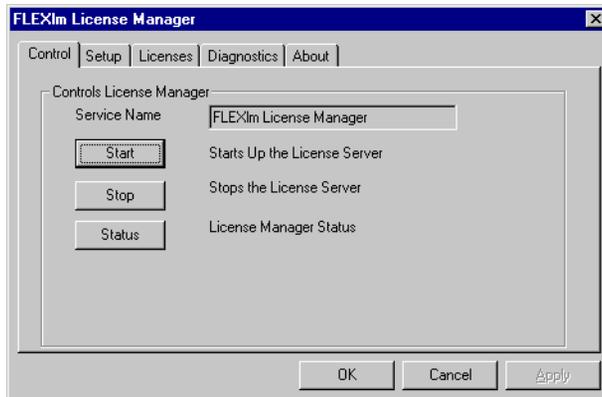
This section provides procedures to configure the TAPI server. For more information, refer to the TAPI documentation.

To configure the TAPI server

To install the Symposium TAPI Service Provider (TSP) 2.3 for Meridian 1, you must use the proper installation procedure as stated in the standard Nortel Networks documentation that accompanies the software.

- 1 Install TSP 2.3.
- 2 Verify that the Nortel Networks TSP dongle is installed and operational.
- 3 Copy the license file from the disk to the C:\WINDOWS\WINNT\SYSTEM32 subdirectory, and rename the file to LICENSE.DAT if it is not already present with that name.
- 4 Open the FLEXIm application from either Start → Programs → Nortel → Symposium TAPI Service Provider for M1 → FlexIm Manager, or from Control Panel → FLEXIm.

Result: The FLEXIm License Manager window appears.



- 5 In the Service Name box, change the entry from NO-SERVER to the TAPI server name installed in the Windows NT domain network. During configuration, the administrator should ensure that the proper mapping is included for each executable.

Note: Ensure that the user account for Telephony Services and ACD Proxy has domain administrative privileges, not only local administrative privileges. Check for this after the TCMSETUP /S domain\administrator_user and password steps are completed.

- 6 From the Start menu, choose Programs → Nortel → Symposium TAPI Service Provider for M1 → Configure Database.

Result: The Symposium TAPI SP for Meridian 1 Configuration window appears.

The screenshot shows the 'Symposium TAPI SP for Meridian 1 Configuration' dialog box. The 'Provider' tab is selected. The 'Application Name' field is 'Meridian Link SP'. The 'Timeout in seconds' section has 'Initialization' set to 99, 'Shutdown' set to 16, and 'Command' set to 99. The 'Call Data' section has 'Size' set to 512 and 'Life Span' set to 21 minutes. There is a 'Convert text file to database fields:' section with a 'Convert Text file' button. The 'Log Style' dropdown menu is set to '1'. At the bottom are 'OK', 'Cancel', and 'Apply' buttons.

- 7 Set the following boxes:
 - Initialization: 99
 - Shutdown: 16
 - Command: 99

- 8 Click Apply.
- 9 Click the Meridian 1 Host tab.

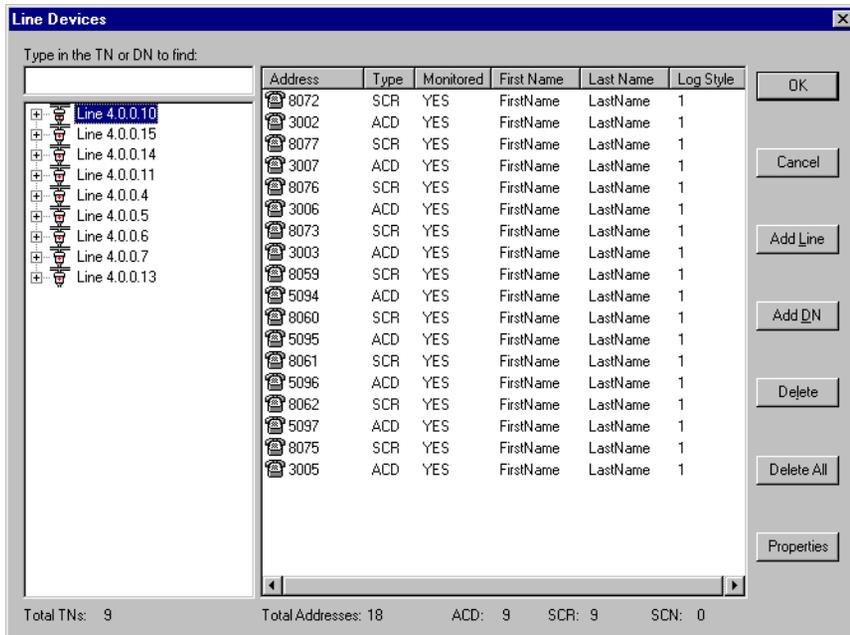
The screenshot shows a dialog box titled "Symposium TAPI SP for Meridian 1 Configuration". It has several tabs: "Provider", "Meridian 1 Host", "Network TAPI/IVR Server", "Log Styles", and "About". The "Meridian 1 Host" tab is selected. The dialog is divided into several sections:

- Host:** Host Name: Lanlink; Host Address: 47 . 11 . 44 . 108; Meridian Link Release: 5 (dropdown).
- Machine:** Machine Name: SL1; Host Port: 3000; Meridian 1 Release: 25 (dropdown); Phantom DN: 0000.
- Association:** Customer Number: 0; Registration Password: (empty); Polling Interval: 0; Monitor All DN's (checkbox); Monitor No DN's (checkbox).
- Services:** Inbound Call Processing (checked); Outbound Call Processing (checked); Enhanced Routing (checked).
- Log Style:** 1 (dropdown).
- Tables:** Trunk Table (checkbox); Treatment Table (checkbox); TN Table (checkbox); Control DN (checkbox).

At the bottom are buttons for "OK", "Cancel", and "Apply".

- 10 Set the Host Address to the host name of the CLAN of the server in Symposium Call Center Server.
 - a. Set the Meridian Link Release box to 5.
 - b. Set the Host Port box to 3000.
- 11 Click TN Table.

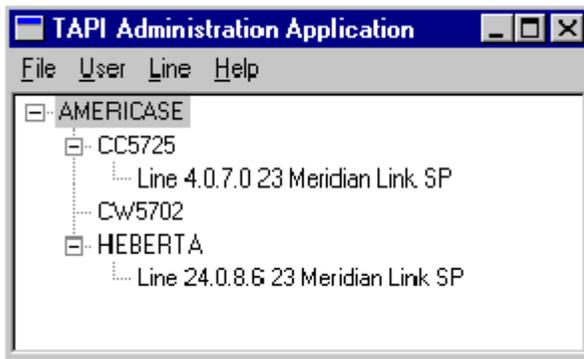
Result: The Line Devices window appears.



Note: When you configure the TAPI server, you must ensure the following:

- The Position and Agent Keys used for the Symposium Web Center Portal agents are set up to match the same keys on the switch.
 - The outbound TAPI line is not in the ACD queue.
- 12** In the monitored column, verify that the target agent phonesets are set to be monitored.
- Note:** Any sets that are AST-enabled but not set to monitor do not receive TAPI functionality at the desktop.
- 13** Run TCMAPP. TCMAPP sets the Symposium Call Center Server agent's phone line with the LAN user's ID. This is the user ID that is used to log on to the network for the agent's desktop. The line associated with the user ID is the TNB number loaded into M1CFG from LD 20.
- 14** Confirm your connectivity:
- a. Use the TAPI Browser and Logger on the TAPI server to confirm that connectivity exists with the Meridian 1 PBX, and that lines are initializing.

- b. Use the NETSTAT -a command from the TAPI server at a DOS command prompt to confirm that TAPI has an established TCP/IP port conversation with MLSLINK on port 3000.



To load the line configuration from the switch

- 1 Clean up and load the database.
Before any updates are made to the M1CFG application, the M1SPDB.MDB file in the M1SERVER directory on drive C should be copied to the C:\TEMP directory.
- 2 Copy the M1SPDB.MDB file from the /EMPTYDB directory, and overwrite the current database with an empty database.
- 3 Follow the convert text file process and read in the new database information from load 20, 21, and 23. If the text files do not convert properly, you can restore the previous database by copying the saved M1SPDB.MDB back into the M1SERVER directory.

If the TCMAPP application does not display new database information, stop and restart the ACDPROXY and TELEPHONY services to reread the database file.

Call Data Lifespan parameter

The Call Data Lifespan parameter determines how long the TAPI call data lives on the TAPI server. Nortel Networks recommends that you set the Call Data Lifespan parameter to 21 minutes. For more information, refer to the TAPI

documentation.

ATTENTION

If the Call Data Lifespan is not long enough, the pop-up dialog box may not appear when a call is presented to an agent.

To change the Call Data Lifespan

- 1 From the Start menu, choose Programs → Nortel → Symposium Service Provider M1 → Configure Database.
- 2 Click the Provider tab.
- 3 Make the necessary changes to the Call Data Lifespan parameters.

Appendix B

Windows NT configuration for Symposium Web Center Portal

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Overview

Introduction

The table in this section provides information and tips for Windows NT. It also organizes the planning information according to when it is needed during the software installation.

Where to get the information

The system administrator and the Symposium Web Center Portal administrator can provide the information required for these tables.

Server names

When you select a name for your server, use the Domain Name Service (DNS) supported characters. If you select Microsoft-supported characters for your server, it may prevent some applications from connecting with the server.

Windows NT configuration information

Introduction

Complete the following table to record general Windows NT information.

During the Windows NT installation, the installation program automatically sets the virtual memory usage for the server. Keep this setting, which is the recommended setting for installing Symposium Web Center Portal.

Windows NT license requirement

When you are setting up the Windows NT license, choose five concurrent sessions per server.

General information

Required setup data	Fill in the required information
New password for the Administrator account (You are instructed to provide a new password.)	For security reasons, do not record the password here.
Computer name <ul style="list-style-type: none"> ■ no spaces; 6 to 15 characters in length ■ letters, numbers, hyphens, and dashes are allowed ■ must be unique on the network ■ characters must comply with the DNS naming conventions (for example, you cannot use underscores) 	

Required setup data	Fill in the required information
DNS Host Name (must be exactly the same as the Computer name, including uppercase and lowercase)	
Domain or Workgroup name	
Type of modem installed in the server	
Modem phone number for the switch (for dial-up connections only)	

Antivirus software on Symposium Web Center Portal servers

Introduction

Your security policy may require you to install antivirus software (such as Norton, McAfee, and Innoculate) on the Symposium Web Center Portal servers.

This section contains guidelines for the use of antivirus software on Symposium Web Center Portal servers.

Guidelines

Follow these guidelines when you plan to install and run antivirus software on the Symposium Web Center Portal servers:

- Install the Symposium Web Center Portal software before you install the antivirus software.
- Disable antivirus software before you install any PEPs. You can reenable the antivirus software after you complete the installation of the Symposium Web Center Portal PEP.
- Set virus scans to run during off-peak hours.
- Do not configure the antivirus software to automatically fix infected files. If you have an infected file, contact your local Nortel Networks customer support representative for assistance. He or she can determine if the file(s) are part of the application or a critical system file.
- Do not connect Symposium Web Center Portal servers to the Internet to access virus definitions or updates. Download virus definitions and update files to another location on the network, and then load these updates on the servers.
- Scan all PEP files, CD-ROMs, and floppy disks prior to use.
- Running a virus scan can place additional load on the server. The system administrator should ensure that he or she runs the Windows NT 4.0 Performance Monitor on the server to gauge the CPU usage. If the antivirus

software causes the CPU usage to exceed 50 percent for longer than 20 minutes, you should not install this antivirus software on the server.

- Nortel Networks does not provide support on the configuration of antivirus software. Questions or problems on antivirus software should be directed to the appropriate vendor.
- The above recommendations are intended as guidelines only, and do not constitute a guarantee of compatibility. Nortel Networks does not plan to perform ongoing compatibility testing, or testing on other antivirus packages.
- If performance or functionality issues are raised to Nortel Networks support personnel, as part of the fault diagnosis process, the customer/distributor may be asked to remove third-party utility software or antivirus software.

Appendix C

Dashboard utility

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Overview

Introduction

The Symposium Web Center Portal Dashboard simplifies the monitoring of the Symposium Web Center Portal system, which is distributed across a number of different servers and desktop computers.

A graphical user interface (GUI) displays the status of the system components in terms of network connectivity, services, logged error events, memory and database usage, and mailbox status. It also checks for ASP handling, server time differences, general network health, and available TAPI lines and their status.

You can install and run the Dashboard on any of the Symposium Web Center Portal NT servers (the Symposium Web Center Portal server, Agent server, External Web server, or agent computer), or you can install it on a remote NT client. You must set up the necessary permissions to execute the Dashboard.

User accounts and privileges

Introduction

If you are running the Dashboard on a remote computer, it must have access to the registry, event logs, and other items on the Symposium Web Center Portal server. To enable this, the account under which the Dashboard runs (for example, the account the user is logged on as) must be a member of the Administrator group on the Symposium Web Center Portal server. This gives the Dashboard the required Local Administrator privileges on the database computer.

If the remote computer does not reside in the same domain as the database server, you must establish a trust relationship between the two domains. See the Windows NT User Manager Help for more information on trust relationships.

For the Dashboard to determine the current time on the External Web server, the Guest account must be enabled on that server.

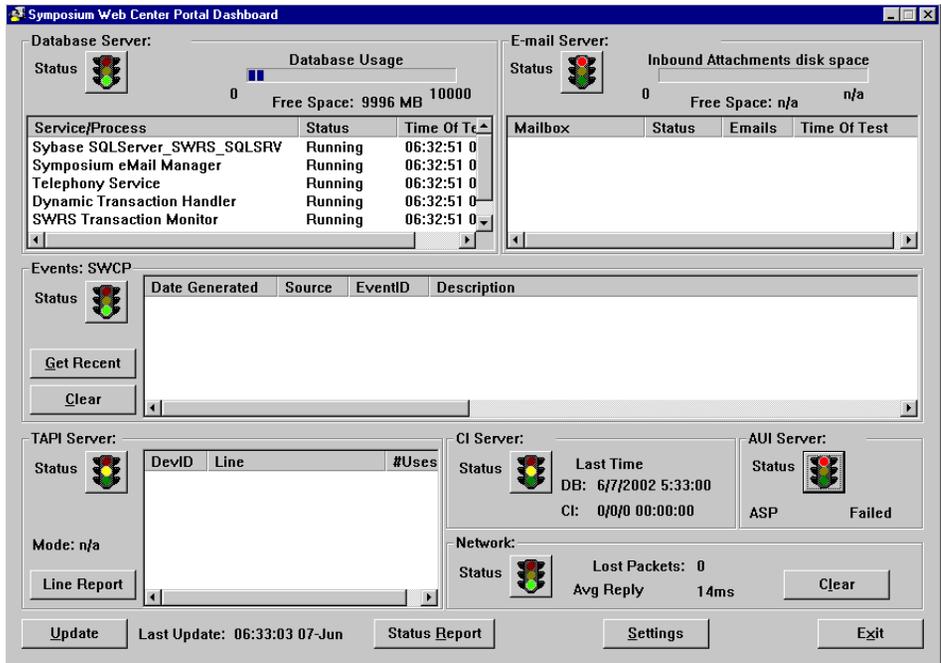
To enable a Guest account

- 1 Open the Guest account in User Manager.
- 2 Ensure that Account Disabled is unchecked.

Using the Dashboard

Introduction

The Dashboard performs a basic sanity check every 30 seconds, including a network-level ping of the database, e-mail, Customer Interface, Agent Interface, and TAPI server. It also checks the required services or processes, an update of the event log, and ASP page retrieval. The Dashboard monitors the network statistics generated from this activity and displays the result in the following window:



The Dashboard periodically performs a full update, including logging on to mailboxes, checking memory usage and the number of transactions, and checking the time synchronization, and provides a full update of the list of TAPI devices based on the user-defined Refresh Interval.

The traffic light symbols are designed to give an immediate indication of the status of each section. The green light indicates that all tests have passed. The amber indicates that some tests failed but may not severely impact operation. The red indicates a potentially serious problem.

Note: The Status light does not detect if the network failed. It checks the quality of the usable network.

The GUI is divided into seven sections:

- Database Server
- Email Server
- SWCP: Events
- TAPI
- CI Server
- AUI Server
- Network

Database Server

This section of the window indicates the status of the database and the computer on which it resides. The name of the Symposium Web Center Portal server to which the Dashboard is connected appears, and it is pinged at regular intervals.

Transactions

Reports the current number of transactions in the database. If this figure grows beyond the Transaction Threshold, an error is reported and the status changes to red. In this case, the user should back up and purge the database. You should accept the default value for the Transaction Threshold in the settings dialog box. Only change this default value if it is recommended by Nortel Networks' customer support.

Database Usage

This gives a visual representation of the space currently used in the database and the amount of free space that remains. Greater than 90 percent usage causes an amber warning, while more than 95 percent used causes a red warning.

Service/Process

This displays a list of the Symposium Web Center Portal services and processes running on the Symposium Web Center Portal server. A warning is flagged if any of these are not running as this will impact the operation of Symposium Web Center Portal.

E-mail Server

This section of the window represents the status of the e-mail portion of the Symposium Web Center Portal system. The current e-mail server name appears, and this computer is pinged at regular intervals.

Inbound Attachments: Disk Space

This gives a visual representation of the amount of space used on the disk where the Inbound Attachments are being stored, and the amount of free space that remains. If usage is greater than 75 percent, an amber warning appears. If usage moves above 90 percent, a red warning is flagged.

Mailboxes

The Dashboard retrieves the current list of mailboxes from the database each time an update cycle occurs. It logs on to each mailbox in turn to determine that it is valid and active. To prevent excessive load, a limit of one mailbox per 2 minutes is imposed. This means that for a refresh interval of 10 minutes, five mailboxes are tested. During the next update cycle, the next five mailboxes (should more exist) are tested, and so on, until all are tested.

If a logon is successful, the number of e-mails in the mailbox at that time appear. If the IMS is running correctly, the e-mails should be retrieved regularly from each mailbox, and the reported number of e-mails should not grow too large.

If some mailbox logon attempts fail, an amber warning appears. If no logons are successful, a red warning is flagged.

Events: SWCP

This section displays the Symposium Web Center Portal-related events that are logged to the Application Log on the Symposium Web Center Portal server. Only error level events appear. For warning and information level events, refer to the original event log.

If error events are reported, a red warning is flagged. If the source of the error was rectified, you can click Clear to clear the display and return it to green status. If required, the 20 most recently reported errors are retrieved by clicking Get Recent.

Note: The Dashboard is unable to retrieve events if the event log becomes full or too large. If this problem is reported by the Dashboard, you must clear the event log on the Symposium Web Center Portal server. Nortel Networks recommends that you set the log size in the Event Viewer on the Symposium Web Center Portal server to 512 kbytes. Nortel Networks also recommends that the Clear Log Manually setting is used so that you are notified when the log is full.

TAPI Server

This section provides information on the operation of TAPI on the local computer. Note that this is primarily beneficial if the Dashboard is run on the database server, which allows it to monitor the DTH TAPI lines. If it is installed on a different server, it displays the available information on the TAPI lines available to that computer but gives no indication of the state of the DTH TAPI lines. The status remains in an amber state. If TAPI was not installed on the local computer, no tests are carried out.

List

The list displays the device ID, the line name, and the number of users (not including the Dashboard) who have opened each of the available lines. If no devices appear, check the Status Report and log files for more information.

Mode

If TAPI is installed and the DTH is not running on the Symposium Web Center Portal server, Symposium Web Center Portal is considered to be running in Push mode. The transactions are pushed to the agent desktop. Otherwise, the agents must Pull the transactions from the database.

Line Report

Click Line Report to generate a more extensive report on the available TAPI lines. The additional information includes the applications using the line, the userID under which they are running, and the TAPI Service Provider.

CI Server

This section relates to the External Web server. The only tests carried out on the server are a ping to verify its network connectivity, and a check of the time, which is compared against that of the Symposium Web Center Portal server. Any difference greater than 5 minutes causes an error to be flagged and a status change to amber. A difference in time or date between the two servers may result in web transactions not being processed at the expected time. The time is updated every Refresh Interval.

Notes:

- You must enable the Guest account on the External Web server for the Dashboard to be able to access its time and date information. If the External Web server does not respond to a ping, or the time is not retrieved due to account restrictions, the time displayed is reset to zero.
- The Dashboard does not take daylight saving time into account. In the case where it is active, the displayed time may differ from the time displayed on the server by an hour. The time difference is calculated using an absolute time value that is unaffected by daylight saving time changes.

AUI Server

The AUI section tests the Agent User Interface, which may coreside on the database computer or on a separate server. The test pings the computer, connects to it to determine the status of the relevant processes, RMI Registry, Agent Interface Server, and Java Console, and also tests to see if the agent logon page can be retrieved (this is not displayed).

If you cannot retrieve the ASP page, a red error is flagged.

Note: It is possible for the ASP retrieval to be successful even though, for example, the Java Console is stopped. If the RMI Registry or Java Console processes are not present, the status is set to red. The Agent Interface process is required to prevent the agent from being automatically logged off — if this is absent, an amber warning is flagged.

Network

The function of the Network status light is to report on the status of the network to all computers that answer a ping message. When the server on which the dashboard is installed loses connectivity to other servers, the status light for the other servers turns red. The Network Status light stays green.

Lost Packets

If any ping packets are lost during the system checks (a failed ping does not contribute), this count is incremented and a red error is flagged. You can click Clear to reset the count.

Avg Reply

This value is the average Round Trip Time (RTT) for the pings carried out during each test cycle. If the average time is outside the limit chosen in the settings dialog box (30, 100, or 300 ms), an error is logged and the status changes to amber. If the average extends beyond the maximum of 300 ms, the status changes to red. A new average is calculated with each test cycle.

Clear

Click Clear to reset the network statistics and return this section to green status.

Dialog Buttons

Update

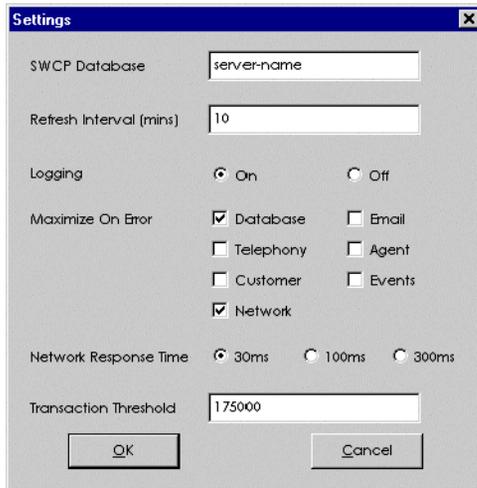
The Dashboard updates its status periodically based on the refresh interval you choose, and the time of the last update appears. You can click Update to generate an update at any time.

Status Report

The Status Report button calls up a window with a textual explanation of the status of each section and gives general pointers as to what may be the root cause of any reported errors. Use it in conjunction with the Dashboard.log file in investigating any reported problems.

Settings

Click Settings to open the dialog box, in which you can change the following Dashboard settings:



The screenshot shows a 'Settings' dialog box with the following fields and options:

- SWCP Database:** Text input field containing 'server-name'.
- Refresh Interval (mins):** Text input field containing '10'.
- Logging:** Radio buttons for 'On' (selected) and 'Off'.
- Maximize On Error:** Checkboxes for 'Database' (checked), 'Email', 'Telephony', 'Agent', 'Customer', 'Events', and 'Network' (checked).
- Network Response Time:** Radio buttons for '30ms' (selected), '100ms', and '300ms'.
- Transaction Threshold:** Text input field containing '175000'.

Buttons: 'OK' and 'Cancel'.

SWCP Database – You can change the host name of the Symposium Web Center Portal server to which you want to connect.

Refresh Interval (mins) – The time it takes to refresh the Symposium Web Center Portal Dashboard GUI. Valid values are between 10 minutes and 24 hours (1440 minutes).

Logging – Allows all error conditions to be written to the Dashboard.log file. Nortel Networks recommends that you keep this enabled. There is no enforced limit on the size of the log file.

Maximize On Error – When the Dashboard is running in the background (minimized or hidden), you can choose to have the Dashboard window maximized whenever an error condition occurs in any one or all of the monitored areas.

Network Response Time – You can choose the average response time at which the Dashboard reports poor network performance.

Transaction Threshold – The level above which the user is informed that the acceptable number of transactions in the database was reached. The default value appears. This should be accepted unless a change has been recommended by Nortel Networks' customer support.

Note: You can click OK to initiate an update with the new values you entered.

Tray icon

You can minimize the Dashboard while it is running. Right-click the tray icon to provide a menu option allowing you to hide the Dashboard window. The tray icon continues to reflect the status of the Symposium Web Center Portal system as follows:



This icon indicates that the Dashboard is running but no errors have been reported.



A warning causes the icon to change to this image.



A critical warning causes the icon to change to this image. If the Dashboard is minimized, the window is maximized at this point (if that option has been selected in the settings dialog box).

Log file

The Dashboard.log file records the details of any errors. Use it as a reference to debug any reported errors.

If the Dashboard is installed on the database server, the log file resides in the Log Files directory with the other Symposium Web Center Portal logs (as chosen by swcpLogCl.exe). If it is installed on a different computer, it is located in the Dashboard directory.

ATTENTION

If the log file grows too large (beyond a couple of hundred kilobytes), it can affect performance. Ensure that the log file is maintained regularly.

Dashboard limitations

Introduction

This section provides information about the elements of the Symposium Web Center Portal system that the Dashboard cannot monitor. For example, it checks that the eMail Manager service is running, that the Mail Server is running, and that you can log on to the mailboxes, but this does not guarantee that the IMS and OMS are configured correctly and running as expected. You should carefully review any errors reported in the event log.

Limitations

- You must install the Telephony service on the Symposium Web Center Portal server for the Dashboard to work correctly, even if you do not plan to use Symposium Web Center Portal in push mode.
- If the shared e-mail attachment folder is of the form `\\servers\SWCPMail`, the Dashboard may encounter difficulties determining the disk space available to it. Nortel Networks recommends that you configure the folder as directed in the user guide to have the following format:
`\\servers\SWCPMail\attachments\inbound`.

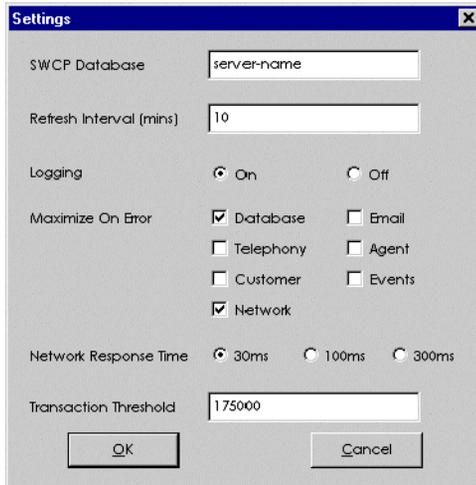
Note: If the Dashboard is installed on a computer other than the Symposium Web Center Portal server, where TAPI is enabled, the TAPI checks are executed, but reflect the status of the locally assigned lines rather than the DTH TAPI lines.

- The Dashboard can only determine if the service or process is stopped or started. If it is changed to a paused state manually, the Dashboard does not display a change of status.
- Ping checks are in place; however, if remote servers suddenly become unavailable during a Dashboard update, attempts that are in progress to retrieve data remotely may take time to return, resulting in a slow update cycle or a delay in exiting the application.
- During an uninstall of the Dashboard, the Symposium Web Center Portal folder cannot be removed from the Programs folder.

To start the Dashboard

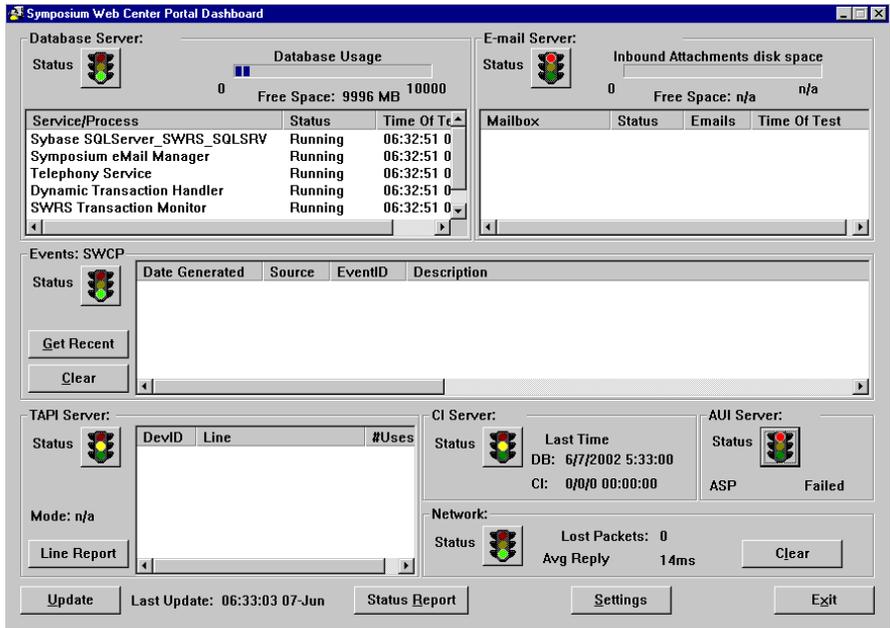
- 1 From the Windows Start menu, click Programs → Nortel Networks – Symposium Web Center Portal → Dashboard.

Result: The Settings dialog box appears.



- 2 In the SWCP Database box, enter the host name of the Symposium Web Center Portal server.
- 3 Select the Refresh interval and logging and error options. For more information, refer to "Settings" on page 501.
- 4 Click OK.

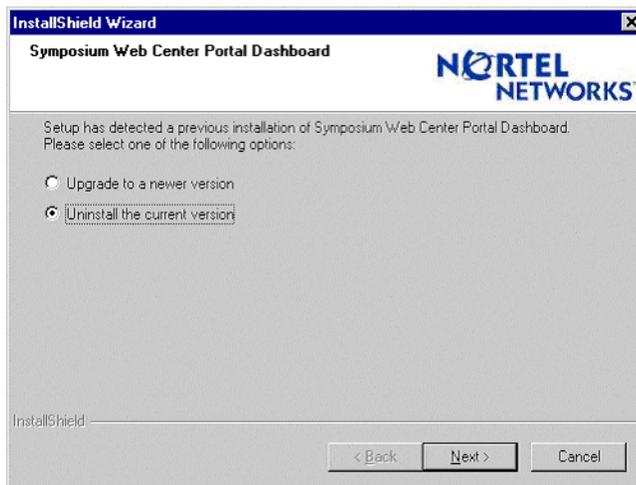
Result: The Dashboard attempts to connect to the specified server. If the server is valid and can be contacted, and all the privileges are correct, the Dashboard window appears.



Uninstalling the Dashboard

To uninstall the Dashboard

- 1 From the Windows Start menu, click Settings → Control Panel → Add/Remove Programs.
- 2 Select Symposium Web Center Portal Dashboard.
- 3 The Symposium Web Center Portal Dashboard window appears.



- 4 Select Uninstall the current version, and then click Next.
- 5 Follow the prompts to uninstall the Dashboard utility.

Note: You must uninstall Sybase and MDAC separately.

Appendix D

Database administration

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Database administration

Introduction

This appendix is intended for database administrators who are maintaining Symposium Web Center Portal, as well as for developers who are creating customized reports.

Symposium Web Center Portal uses a structured database to capture and maintain the data needed to run the system effectively. The database used is Sybase Adaptive Server Enterprise, version 11.5. The database is supplied on the product CD-ROM. Some of the data captured includes

- customer contact details
- customer queries and agent responses
- details of all configured agents, supervisors, and administrators
- site configuration details

Customized reports are created to store and evaluate this information. This appendix provides a detailed database overview.

Database users

After you install Symposium Web Center Portal, the following database users are created:

- admin
- rtdisplay
- immuser
- ommuser
- webinsert

The system requires these database users to function correctly. The users are granted minimal permissions only on the database objects to which they require access. You must not change the passwords to these accounts.

Database user accounts

swcp_admin

This is the highest-level database user account in the system. This user has System Administrator and System Security Officer privileges. Nortel Networks recommends that you change and maintain the password to this account. From this account, most database maintenance operations should be carried out (that is, usage analysis, database expansion, and so on).

swcp_support

This account is intended to provide database access to technical support persons involved in troubleshooting the Symposium Web Center Portal system. The account has System Administrator rights but does not have System Security Officer privileges. Nortel Networks recommends that you change and maintain the password to this account.

swcp_report

The swcp_report account is intended for a low-level user who has read-only access to all database objects. The purpose of this account is to provide database connection for customized reports. Nortel Networks recommends that you change and maintain the password to this account. The standard reports shipped with the product do not use this user account.

By default, the password to the database account is set to report123.

Creating custom reports

Symposium Web Center Portal allows you to create and run customized reports to display any data captured in the Symposium Web Center Portal database. Nortel Networks recommends that you use Seagate Crystal Reports 8.0 for this purpose.

When you test the report in the Crystal Reports runtime environment, you must connect to the database using the swcp_report account. You should save the report layout file (.rpt) to the reports folder (C:\Program Files\Nortel Networks\Symposium Web Center Portal\Administrator\Reports) of the Administrator PC. For more information about running reports, refer to “Skillset Real Time Statistics report” on page 308.

Related information

For more information on Sybase database maintenance, refer to your Sybase documentation or, alternatively, to the Sybase web site at <http://sybooks.sybase.com/asg1150e.html>.

For further general technical documentation, white papers, and troubleshooting tips, visit <http://www.sybase.com/products/databaseserver/ase/techsupport>.

Running the refresh database indexes utility

Run this utility every week to improve database performance by rebuilding the database indexes. Run this utility when you are experiencing low call traffic.

Before you refresh the database indexes, ensure that

- the Symposium Web Center Portal services are shut down
- the Sybase services are running

To run the refresh database indexes utility

- 1 Shut down all of the Symposium Web Center Portal services except the database.
- 2 Use the MS DOS prompt to go to the directory where Sybase Software is installed (for example, C:\Sybase\Bin\SQLScripts). By default, Symposium Web Center Portal installs Sybase software in C:\Sybase.
- 3 Type **refindex.exe** to run the file.
- 4 After you run the refindex.exe file, open the wcp_tm27856.out file in Notepad to check for error messages.

Note: If there are any error messages reported in the wcp_tm27856.out file, contact Nortel Networks customer support.

Database overview

Introduction

This section describes the variables in the database.

Database variables

agent_skillset_mapping

Purpose: To hold agents to skillset assignments.

Triggers: ti_agent_av, tu_agent_av, tdu_agent_av, update real time statistics table for insert/update/delete

Owner: dbo

Name	Type	Primary key	Description
agent_skillset_mapping	numeric(12)	Yes	Sybase index key
agent_id	numeric(12)	No	Agent ID number
skillset_id	numeric(12)	No	Skillset ID number
display_enabled	int	No	RTD Display enabled per user

attachment_tab

Purpose: To hold reference to attachment files sent to and received from customers.

Response is identified from a combination of trans_no and response_no.

Owner: dbo

Triggers: trg_attach_update, E-mail attachment send or received trigger fired. Purpose to fix bug in archive requirements.

Note: trans_no not dependent on response_no

Name	Type	Primary key	Description
trans_no	numeric(12)	No	Transaction number with attachment
response_no	numeric(12)	No	Response number with attachment
filename	varchar(255)	No	Attachment file name (No dir)

attachment_tab_archive

Purpose: Temporary storage location used when archiving the transactions.

Owner: dbo

Name	Type	Primary key	Description
trans_no	numeric(12)	No	Transaction number with attachment
response_no	numeric(12)	No	Response number with attachment
filename	varchar(255)	No	Attachment file name (No dir)

blending_phonelog**Purpose:** Not in use.

Name	Type	Primary key	Description
phonelog_id	numeric(12)	Yes	
time	datetime	No	
skillset_id	numeric(12)	No	
phoneno	varchar(60)	No	

call_barring**Purpose:** Not in use.

Name	Type	Primary key	Description
b_cust_id	numeric(12)	Yes	
b_bar_cust_id	numeric(12)	No	
b_cust_surname	varchar(40)	No	
b_e_mail	varchar(255)	No	
b_internet_phone_id	varchar(50)	No	
b_expiry_date	datetime	No	
b_cust_phone_intl	varchar(50)	No	
b_cust_fax_intl	varchar(50)	No	
b_agent_id	numeric(12)	No	
b_cust_firstname	varchar(40)	No	
b_cust_phone_number	varchar(20)	No	
b_cust_phone_area	varchar(20)	No	
b_cust_fax_number	varchar(20)	No	

Name	Type	Primary key	Description
b_cust_fax_area	varchar(20)	No	
b_agent_comment	varchar(255)	No	

code_mapping

Owner: dbo

Type: user table

Purpose: To hold displayed text values for statuses used internally.

Name	Type	Primary key	Description
field_name	varchar(50)	No	Status name
numeric_value	smallint	No	Status numerical ID
text_value	varchar(50)	No	Text string description
profile_id	numeric(12)	No	NOT USED

customer

Owner: dbo

Type: user table

Purpose: To hold the contact details of customers.

Name	Type	Primary key	Description
cust_id	numeric(12)	Yes	Customer ID # (Symposium Web Center Portal assigned)
cust_num	numeric	No	Customer # Sybase assigned
cust_surname	varchar(100)	No	Customer's last name
cust_address1	varchar(255)	No	Customer's address

Name	Type	Primary key	Description
cust_address2	varchar(255)	No	“
cust_address3	varchar(50)	No	“
cust_address4	varchar(50)	No	“
cust_address5	varchar(50)	No	“
cust_email	varchar(100)	No	Customer's e-mail address
cust_phone_intl	varchar(50)	No	Customer's international code
cust_fax_intl	varchar(50)	No	Customer's international fax code
cust_postal_zip_code	varchar(50)	No	Customer's zip code
cust_internet_phone_id	varchar(50)	No	Customer's IP phone ID
cust_firstname	varchar(50)	No	Customer's first name
cust_phone_number	varchar(20)	No	Customer's phone #
cust_phone_area	varchar(20)	No	Customer's area code
cust_fax_number	varchar(20)	No	Customer's fax #
cust_fax_area	varchar(20)	No	Customer's fax area code
cust_username	varchar(50)	No	Customer's username (unique)
cust_password	varchar(50)	No	Customer's password (registered)
cust_internal_reference	varchar(20)	No	NOT USED
cust_register_date	datetime	No	Date the customer registered

Name	Type	Primary key	Description
cust_login_page	numeric(12)	No	Default logon page

customer_counter

Owner: dbo

Type: user table

Purpose: To hold the last cust_id; the next customer ID will be this plus one.

Name	Type	Primary key	Description
cust_id	numeric	No	Last customer ID used

customer_session

Purpose: To hold details associated with the customer logon to the customer interface web front pages.

Name	Type	Primary key	Description
session_id	numeric(12)	Yes	Unique ID associated with current logon
cust_id	numeric(12)	No	Customer ID number
login_time	datetime	No	Current logon time
logout_time	datetime	No	Last logoff time
timeout	bit	No	True or false force logoff
last_access_time	datetime	No	Last time user hit a page

customer_session_archive

Purpose: Temporary storage location used when archiving the customer session details.

Name	Type	Primary key	Description
session_id	numeric(12)	Yes	Unique ID associated with current logon
cust_id	numeric(12)	No	Customer ID number
login_time	datetime	No	Current logon time
logout_time	datetime	No	Last logoff time
timeout	bit	No	True or false force logoff
last_access_time	datetime	No	Last time user hit a page

vps_tn_listing

Purpose: Not in use.

Name	Type	Primary key	Description
channel_id	Tinyint	Yes	
vps_tn	Varchar(20)	No	
vps_key1	Varchar(20)	No	
vps_key2	Varchar(20)	No	
trans_id	Numeric(12)	No	

user_call_blending**Purpose:** Not in use.

Name	Type	Primary key	Description
agent_id	Numeric(12)	Yes	
trans_id	Numeric(12)	No	
callavailable	Tinyint	No	

inboxes**Purpose:** Holds details for the mail monitors.

Name	Type	Primary	Description
box_no	numeric(18)	Yes	Mailbox #, Sybase assigned
inboxname	varchar(100)	No	Profile name to monitor
password	varchar(100)	No	WinNT domain user password to mailbox owner account
skillset_id	numeric(12)	No	ID of skillset to use when creating e-mail transactions
default_box	bit	No	1 – If this is mailbox to use for outbound e-mail; else, 0.
server_id	bit		Default 0. Used if more than one IMM is running to indicate which inbox is associated with each IMM.
domain	varchar(100)		
display_name	varchar(100)		
winnt_account	varchar(100)		

labels

Purpose: Not in use.

Name	Type	Primary key
table_name	varchar(100)	No
field_name	varchar(100)	No
label	varchar(100)	No
profile_id	numeric(12)	No

memory_stats

Purpose: Not in use.

Name	Type	Primary key
item	varchar(50)	No
status	varchar(50)	No
size_MB	numeric(5,2)	No

profile_mapping

Maps

Name	Type	Primary key
profile_id	numeric(12)	No
profile_description	varchar(50)	No

response**Owner:** dbo**Type:** user table**Purpose:** To hold each response to transactions. Transactions are identified from trans_id (response) corresponding to trans_id (trans).**Triggers:** **trg_resp_insert** Responses arriving by e-mail/web that require an acknowledgement are generated by this trigger.

Name	Type	Primary key	Description
resp_id	numeric(12)	Yes	Unique ID number
resp_num	numeric(12)	No	Sybase number not used
trans_id	numeric(12)	No	The transaction ID with which the response is associated.
response_date	datetime	No	Date response created
callback_status	int	No	Code to indicate completeness of response – e-mail in queue/e-mail sent, and so on
agent_id	numeric(12)	No	Agent who created response
response_text	text	No	Main text of response
response_attempt_no	int	No	NOT USED
attachment_location	varchar(255)	No	NOT USED
template_location	varchar(255)	No	Full location of templates
time_allocated	numeric(6)	No	Time spent creating this response

Name	Type	Primary key	Description
agent_comment	varchar(255)	No	Any comments added by agent
response_method	int	No	Code for response communication medium – e-mail/phone, and so on
number_used	varchar(255)	No	E-mail address/telephone number of outbound response
callback_media	int	No	Code to indicate direction of response – Inbound/Outbound
email_subject	varchar(255)	No	Subject field of e-mail sent
response_source	int	No	Code to indicate originator group of e-mail – Customer/agent, and so on
destination_cc_txt	text	No	CC e-mail list
destination_bcc_txt	text	No	BCC e-mail list

response_counter

Owner: dboType: user table

Purpose: To hold last resp_id.

Name	Type	Primary	Description
resp_id	numeric	No	This is the last response ID # used

site_details

Purpose: To hold details about the system and installation site.

Name	Type	Primary key	Description
site_id	varchar(10)	Yes	Site name
admin_pass	varchar(10)	No	NOT USED
max_no_clients	tinyint	No	Got from installation. Not used.
current_logged_on	tinyint	No	# of users logged on
company_name	varchar(20)	No	Got from the installation
features_enabled	int	No	NOT USED
mail_hours	tinyint	No	Inbound Mail Monitor polling interval
mail_minutes	tinyint	No	Inbound Mail Monitor polling interval
mail_seconds	tinyint	No	Inbound Mail Monitor polling interval
scheduler_hours	tinyint	No	Scheduler polling interval
scheduler_minutes	tinyint	No	Scheduler polling interval
scheduler_seconds	tinyint	No	Scheduler polling interval
customer_session_timeout	tinyint	No	Customer inactivity timeout time in minutes.
version	varchar(10)	No	Symposium Web Center Portal Product Version
no_ack	tinyint	No	1 – Do not reject e-mails with invalid txn numbers 0 – Reject e-mails with invalid txn numbers
ack_subject	varchar(255)	No	Subject to send to customers if e-mail is rejected

Name	Type	Primary key	Description
ack_text	text	No	Body text to send to customers if e-mail is rejected
inattach	varchar(255)	No	Inbound attachment dir location
outattach	varchar(255)	No	Outbound attachment dir location
reports_to_print	int	No	NOT USED
reports_dwm	int	No	NOT USED
reports_date	int	No	NOT USED
reports_day	int	No	NOT USED
reports_hour	int	No	NOT USED
reports_min	int	No	NOT USED

skillset

Owner: dbo

Type: user table

Purpose: To hold skillset details.

Triggers: **trg_del_inboxes** Declare variable to hold skillset_id from record to delete to perform cascade delete to maintain referential integrity.

Note: Fixed order of columns.

Name	Type	Primary key	Description
skillset_id	numeric(12)	Yes	Unique skillset ID #
skillset_name	varchar(50)	No	Name of skillset

skillset_thresh old	numeric(5)	No	Threshold value for this skillset
parent_skillset_id	numeric(12)	No	NOT USED
web_description	varchar(50)	No	Skillset display name
skillsetmapping	varchar(50)	No	NOT USED
ack_tx_email	tinyint	No	Auto Acknowledge e-mails
ack_tx_web_email	tinyint	No	Auto Acknowledge web trans with e-mail response requested
ack_tx_web_tel	tinyint	No	Auto Acknowledge web trans with telephone response requested
ack_rep_email	tinyint	No	Auto Acknowledge responses from e-mail
ack_rep_web	tinyint	No	Auto Acknowledge responses from the Web
ack_subject	varchar(255)	No	Auto Acknowledge subject
ack_text	text	No	Auto Acknowledge text
autosignature	text	No	Auto signature text
acd_dn	varchar(20)	No	Skillset ACD DN / CDN number
priority	tinyint	No	NOT USED
skillset_num	numeric	No	Sybase generated index (not used)

skillset_counter**Owner:** dbo**Type:** user table**Purpose:** To hold last skillset_id.

Name	Type	Primary key	Description
skillset_id	numeric		Last used skillset ID number

skillset_statistics**Owner:** dbo**Type:** user table**Purpose:** To hold skillset load details used in real-time displays.

Name	Type	Primary key	Description
skillset_id	numeric(12)	Yes	Skillset ID stats
agents_available_value	int	No	Total # of agents for skillset
agents_available_threshold	int	No	Threshold value of agents needed
agents_in_service_value	int	No	Agents currently logged on
agents_in_service_threshold	int	No	Threshold value of agents logged on needed
new_rep_calls_waiting_value	int	No	# of new transactions
new_rep_calls_waiting_threshol	int	No	New transactions threshold

Name	Type	Primary key	Description
open_calls_waiting_value	int	No	# of Open transactions
open_calls_waiting_threshold	int	No	Open transactions threshold
pending_calls_waiting_value	int	No	# of pending transactions
pending_calls_waiting_threshol	int	No	Pending transaction threshold
longest_waiting_time_value	int	No	Value in mins of txn with longest wait time for this skillset
longest_waiting_time_threshold	int	No	Threshold value in mins of txn with longest wait time for a skillset
average_handle_time_value	int	No	Average time in mins to handle txns in for the skillset
average_handle_time_threshold	int	No	Average handle time threshold to handle txns for the skillset

trans**Owner:** dbo**Type:** user table**Purpose:** To hold the customer's transaction details.

Customers are identified from the trans_cust_id (trans) corresponding to the trans_id (trans).

Triggers: trg_trans_update, trg_trans_insert, trg_trans_delete, Sets trans+ID. Assigns skillset ID, creates a response record if an auto acknowledge is required. Updates RT stats.

Name	Type	Primary key	Description
trans_id	numeric(12)	Yes	Unique trans ID #
trans_num	numeric(12)	No	Sybase trans number. Not used.
trans_cust_id	numeric(12)	No	Customer ID associated with transaction
trans_open_time	datetime	No	Time when agent opened trans
trans_arrival_time	datetime	No	Time trans arrived
trans_status	tinyint	No	Current status of trans (for example, New)
trans_agent_id	numeric(12)	No	Last agent to open the transaction
trans_skillset_id	numeric(12)	No	Skillset associated with trans
trans_source	tinyint	No	Origins of txn - Web/E-mail
trans_objective	text	No	Objective text of trans

Name	Type	Primary key	Description
trans_callback_date	datetime	No	Callback date and time
trans_pref_callback_media	tinyint	No	Preferred callback media type defined by customer
trans_open_duration	numeric(18)	No	Total time a transaction was open
trans_sub_status	smallint	No	Internal temporary storage of status
trans_clickstream_text	text	No	Listing of web sites the customer visited prior to submitting txn
objective_subject_txt	varchar(255)	No	Subject text if txn originated by e-mail
acquired_dt	datetime	No	When DTH acquired txn

trans_add_data**Owner:** dbo**Type:** user table**Purpose:** To hold data from extended database fields.**Triggers:** trg_transadd_update: Empty.

Name	Type	Primary key	Description
trans_id	numeric(12)	No	Trans ID of related transaction
field_id	numeric(3)	No	Field ID from trans_add_field table
data_text	text	No	Values for extended field for this transaction

trans_add_field**Owner:** dbo**Type:** user table**Purpose:** To hold names of extended database fields.

Name	Type	Primary key	Description
field_name	varchar(20)	No	Name for extended field (text box name on customer interface)
field_id	numeric(3)	No	Sybase - issued field identifier
field_type	varchar(10)	No	Not used (always text)

trans_counter**Owner:** dbo**Type:** user table**Purpose:** To hold last trans_id.

Name	Type	Primary key	Description
trans_id	numeric		Last transaction ID # used

trans_data**Purpose:** Not used.

Name	Type	Primary key	Description
trans_id	numeric(12)	No	
field_name	varchar(20)	No	
field_type	varchar(10)	No	
data_text	text	No	

user_details**Owner:** dbo**Type:** user table**Purpose:** To hold details on agents, supervisors, and administrators.**Triggers:** **tu_agent_is**, **trg_user_del** Updates RT stats and site_details currently logged on stats.

Name	Type	Primary key	Description
user_id	numeric(12)	Yes	Unique ID #

Name	Type	Primary key	Description
user_surname	varchar(50)	No	Last name of user
user_firstname	varchar(50)	No	First name of user
user_status	int	No	Logged on or not
user_class	varchar(20)	No	Admin/Super/Agent user
user_dn	varchar(20)	No	Phone Dn number
user_fax	varchar(20)	No	Fax number
user_email	varchar(20)	No	E-mail address of user
user_logon_id	varchar(50)	No	User logon name
user_pass	varchar(20)	No	User password

WebOnHoldURLList

Owner: dbo

Type: user table

Purpose: Contains all Web On Hold URLs to the customer Web On Hold pages. Modified through the Web On Hold Admin.

Name	Type	Primary key	Description
URLid	numeric(9)	Yes	Internally generated URLid (unique)
holdTime	int	No	Time in seconds for which the URL appears on screen during Web On Hold
URL	varchar(255)	No	The URL
Description	varchar(255)	No	Short description of URL

WebOnHold

Owner: dbo

Type: user table

Purpose: The Web On Hold URL playback sequence corresponding to each skillset. Modified through the Web On Hold Admin.

Note: SerialNo is even for a cycle at the end of a play sequence, odd for no cycle (that is stop play at end). (internal only)

Name	Type	Primary key	Description
URLid	numeric(9)		Foreign key corresponding to the value in WebONHoldURLList table
SerialNo	int		Order of play in the skillset
SkillsetId	numeric(18)		Skillset ID # for skillset name

PagePushURLList

Owner: dbo

Type: user table

Purpose: All URLs used in page push. Modified through the Page Push Admin.

Name	Type	Primary key	Description
URLid	numeric(9)		ID of URL, unique generated by DB
URL	varchar(255)		The URL string
Description	varchar(255)		Short description of URL

PagePush

Owner: dbo

Type: user table

Purpose: The page push URLs for any one skillset. Modified through the Page Push Admin.

Name	Type	Primary key	Description
SkillsetId	numeric(18)		Skillset ID # for skillset name
URLId	numeric(9)		URL ID # corresponding to URL in PagePushURLList table
SerialNo	int		The serial number specifying the order of appearance in display lists (internal)

click_stream

Owner: dbo

Type: user table

Purpose: Click stream URL tracking table. List of all URLs the customer wants to track for click stream tracking. Modified through the Click Stream Tracking Admin.

Name	Type	Primary key	Description
url	varchar(255)		The URL
description	varchar(255)		Description of URL
title	varchar(255)		Title of URL
active	int		Whether tracked or not (1: tracked, 0:Not tracked)

ChatTable

Owner: dbo

Type: user table

Purpose: Frequently used Chat strings for agent. Defines the strings displayed on the Agent Chat control display screen. Modified through the Chat Admin.

Name	Type	Primary key	Description
name	varchar(225)		Short name of text string
value	varchar(255)		Actual text string

Output of the code_mapping table

field_name	numeric_value	text_value	profile_id
trans_source	0	Not Available	1
trans_source	2	E-Mail	1
trans_source	5	Web	1
trans_pref_callbac k_media	0	Not Available	1
trans_pref_callbac k_media	1	Telephone	1
trans_pref_callbac k_media	2	E-mail	1
trans_pref_callbac k_media	3	Fax	1
trans_pref_callbac k_media	4	Mail	1
trans_status	0	New	1
trans_status	1	Open	1
trans_status	2	Pending	1
trans_status	3	Closed	1
trans_status	4	Closed	1
trans_status	5	Acquired	1
trans_status	6	Queued	1
trans_status	7	New Reply	1
trans_status	9	Barred	1
trans_status_img	0	New.gif	1

field_name	numeric_value	text_value	profile_id
trans_status_img	1	Open.gif	1
trans_status_img	2	Pending.gif	1
trans_status_img	3	Closed.gif	1
trans_status_img	7	Reply.gif	1
trans_status_img	9	Barred.gif	1
response_method	0	Not Available	1
response_method	1	Telephone	1
response_method	2	E-Mail	1
response_method	3	Fax	1
response_method	4	Conventional Mail	1
response_method	5	Web	1
response_method	6	Close the transaction	1
response_method	7	Reopen the transaction	1
response_method	8	Skillset Transfer	1
response_method	9	Barred Transaction	1
response_method	10	Agent Note	1
response_method	11	Chat	1
response_method	200	Other	1
callback_media	0	Not Available	1
callback_media	20	Inbound	1
callback_media	21	Outbound	1

field_name	numeric_value	text_value	profile_id
response_source	0	Not Available	1
response_source	20	E-Mail (Customer to Agent)	1
response_source	21	E-Mail (Agent to Customer)	1
response_source	22	E-Mail (Acknowledgement)	1
response_source	50	E-Mail (Web)	1
response_source	60	Chat	1
response_source	90	Internal (Agent)	1
callback_status	0	Response Cancelled	1
callback_status	10	No callback	1
callback_status	11	Call Completed	1
callback_status	12	Call Not Answered	1
callback_status	13	Wrong Telephone Number	1
callback_status	14	No Number Selected	1
callback_status	15	Busy	1
callback_status	16	Other	1
callback_status	20	E-Mail In Queue	1
callback_status	21	E-Mail Sent	1
callback_status	22	E-Mail Undeliverable	1
callback_status	23	E-Mail Not Sent	1

field_name	numeric_value	text_value	profile_id
callback_status	24	E-Mail Address Not Provided	1
callback_status	25	E-Mail Received	1
callback_status	26	E-Mail Send In Progress	1
callback_status	30	Fax In Queue	1
callback_status	31	Fax Sent	1
callback_status	32	Wrong Fax Number	1
callback_status	33	Fax Not Sent	1
callback_status	40	Mail Posted	1
callback_status	41	Response Canceled	1
callback_status	50	Web reply	1
callback_status	60	Transaction Closed	1
callback_status	70	Transaction Reopened	1
callback_status	80	Transaction Transferred	1
callback_status	90	Transaction Barred	1
callback_status	100	Agent Note	1
callback_status	110	Chat Response	1
callback_status	200	Done	1
trans_sub_status	0	Not Available	1
cust_login_page		Submit a Request	1

field_name	numeric_value	text_value	profile_id
cust_login_page	2	View Transaction History	1
cust_login_page	3	Update Account Details	1
trans_status	15	Acquire	
trans_sub_status	8	Not Available	
	7	New Reply	
	17	Awaiting New Reply	

Appendix E

Customizing the Customer Interface

In this appendix

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Overview

Introduction

This chapter provides details on creating an application using Active Server Pages (ASPs) to test the Symposium Web Center Portal Customer Interface. Nortel Networks recommends that only experienced web developers should attempt to code a Customer Interface application.

Before you begin, you must have experience with the following applications:

- ASP
- HTML
- Visual Basic script
- Javascript
- SQL

The sample application emulates a typical scenario for Symposium Web Center Portal. This chapter provides you with the information to allow you to implement the application or to modify it to suit your needs. You can also use this section as a starting point or guide to write your own applications. You may only need to use certain elements of the pages for your application. It is intended as an example.

Note: Nortel Networks is not responsible for problems encountered on the customer's version of the Customer Interface that cannot be reproduced on the sample implementation.

Writing the application

Symposium Web Center Portal is a modular suite of Internet applications that allows businesses to interact with their customers, suppliers, partners, and others online via the Web, e-mail, and telephone (for example, an interaction between a potential customer and a Customer Care center). The following sample pages

implement a web site that customers can browse and then request help. When the customer requests help, he or she is prompted to register and fill in a form stating the nature of the query and the preferred interaction method—telephone callback, e-mail, or web chat.

Telephone response example

If the customer chooses telephone callback, he or she is prompted to enter the skillset that interests him or her (a skillset can be product category, department, and so on), a query text, and the preferred callback time. The request is submitted to the Customer Care center's Symposium Web Center Portal server, and an agent is assigned to the transaction. The agent views the customer information, and the nature of the query, and can initiate a telephone callback to the customer at the scheduled time.

E-mail response example

If the customer chooses e-mail, he or she is also prompted to enter a query text. The request is submitted to the Customer Care center's Symposium Web Center Portal server, and an agent is assigned to the transaction. The agent views the customer information and the nature of the query, and can initiate an e-mail response to the customer.

Live chat response example

If the customer prefers to talk to an agent online in real time using web chat, he or she selects live chat as the preferred interaction method, enters a short query text, and submits the request. The request is submitted to the Customer Care center's Symposium Web Center Portal server, and an agent is assigned to the transaction. The agent views the customer information and the nature of the query, and then initiates a live chat session. While the agent is viewing the information and getting ready for the live chat session, a series of web pages appear on the customer's browser showing the current sales promotions and incentives. As soon as the agent has initiated the web chat session, the Web Communication window appears. The customer and agent can begin to interact using this window and Text Chat, Page Push, and form sharing.

When you customize the Customer Interface, you must keep in mind that the call center does not process customers' requests for assistance when it is closed. On the web page, state the hours of operation, and the time zone in which the call center is located. Any transactions received outside the hours of operation are not processed until the DTH starts the next day.

Note: For callbacks, you must modify your Customer Interface to specify the call-back time in the time zone of the Symposium Web Center Portal server.

Building the application

Introduction

Example code is shown to implement the following procedures:

- Connecting to the database
- Executing an SQL query
- Retrieving data from an SQL query
- Calling stored procedures
- Logging and string parsing
- Handling session time out

Information about the following is also provided in this section:

- Overview of example implementation
- Adding links to other pages
- Clickstream Tracking
- Enabling the Web Communication Manager
- Web Communication Manager windows

ATTENTION

For information about the table and column names used in the database, refer to Appendix D, “Database administration.”

Connecting to the database

Introduction

In the sample provided, there are three steps involved in connecting to the database using the SWRSDB object.

To connect to the database

- 1 Define a variable using the format Dim *<name of variable>*.
- 2 Assign "server.CreateObject (SWRSDB.clsSQL)" to the variable.
Result: This creates the SWRSDB object from the swrsdb.dll that resides in ..\Program Files\Common Files\Nortel Networks\Symposium Web Center Portal.
- 3 Assign the connection to the session variable object ODBC_Connect. The object is defined in global.asa to point to the clsODBC class module. This provides a connection to the database.

Example from login.asp

```
Dim clsSQL

Set clsSQL = Server.CreateObject("SWRSDB.clsSQL")
if clsSQL is nothing then
    oSWCPLog.LogMessageFuncName ERR_LEVEL3, MODULE_NAME,
    1005, E1005,
    FILENAME

    Response.Write E1005 & Err.Description
    if not clsSQL is nothing then Set clsSQL = Nothing
Response.End
```

```
end if
```

```
clsSQL.assignConnection(ODBC_Connect)
```

ATTENTION

You may add error handling functionality to check if you created the SWRSDB object correctly. The error handling shown in the examples are Nortel Networks error checking procedures. They are designed to work with the application swcpLogClt.exe located in ..\Program Files\Common Files\Nortel Networks\Symposium Web Center Portal.

Executing an SQL query

Introduction

This section provides information about running an SQL query.

To run an SQL query

- 1 Define a variable using the format *Dim <name of variable>*.
- 2 Assign the SQL statement to the variable.
- 3 Run the SQL statement using the format *clsSQL.applySQL(<SQL string>)*, where *clsSQL* is the SWRSDB object that has been defined when connecting to the database.

Example from login.asp

```
Dim sSQL

sSQL = "SELECT cust_id, cust_firstname, cust_surname,
cust_phone_intl, cust_phone_area, cust_phone_number,
cust_email FROM customer WHERE cust_username = '" &
MyLogonName & "' AND cust_password = '" & MyPassword &
"'"

clsSQL.applySQL(sSQL) ' Using SWRSDB execute the SQL
statement
if clsSQL.sqlERROR = TRUE then
    oSWCPLog.LogMessageFuncName ERR_LEVEL2,
    MODULE_NAME, 1014, E1014,
    FILENAME
    Response.Write E1014
if not clsSQL is nothing then set clsSQL = Nothing
Response.End
```

```
end if
```

ATTENTION

You may add error handling functionality to check if the SQL statement was executed correctly. The error handling shown in the examples are Nortel Networks error checking procedures. They are designed to work with the application swcpLogClt.exe located in ..\Program Files\Common Files\Nortel Networks\Symposium Web Center Portal.

Retrieving data from an SQL query

Introduction

The SWRSDB object (*clsSQL*) is used to retrieve data from an SQL query. There are a number of methods that can be invoked on this object. They are outlined as follows:

- `countCols()` – The number of columns of data pertaining to an SQL query.
- `countRows()` – The number of rows of data pertaining to an SQL query.
- `getData(column As Integer, row As Integer)` – Retrieves data from a query.
- `getColumnData(columnName As String, row As Integer)` – Retrieves data from a query.

To retrieve data from an SQL query

- 1 Retrieve the number of rows of data returned using the `countRows()` method on the `SWRSDB.clsSQL` object.
- 2 If there is a row of data, then using the appropriate method on the `SWRSDB.clsSQL` object and passing the correct column name as an argument, assign the return value to a variable.

Example from login.asp

This follows on from the query that was executed in the previous section:

```
rtnTotalRows = clsSQL.countRows

if (rtnTotalRows - 1) > 0 then
    Session("cust_id") =
        CLng(clsSQL.getColumnData("cust_id",1))
    Session("cust_firstname") =
        clsSQL.getColumnData("cust_firstname",1)
    Session("cust_surname") =
        clsSQL.getColumnData("cust_surname",1)
    Session("cust_phone_intl") =
        clsSQL.getColumnData("cust_phone_intl",1)
```

```
Session("cust_phone_area") =  
    clsSQL.getColumnData("cust_phone_area",1)  
Session("cust_phone_number") =  
    clsSQL.getColumnData("cust_phone_number",1)  
Session("cust_email") =  
    clsSQL.getColumnData("cust_email",1)  
  
end if
```

The number of rows of data returned is one greater than the actual value. Hence, if you want to check if data exists, use the line `if (rtnTotalRows - 1) > 0`. If you are retrieving a string value, use the `getColumnData()` function as it is. If you are retrieving an integer, such as `cust_id`, you must convert the return value to the appropriate type (for example, `CLng`).

Calling stored procedures

Introduction

There are four stored procedures that are called through the sample pages. These procedures are necessary for retrieving the next available primary key values for the customer, customer_session, trans, and response tables. These values are required if you are entering new data into these tables.

The names of the procedures are as follows:

Name	Purpose
getCustId	Retrieve the next available value for cust_id for the customer table.
getCustSessionId	Retrieve the next available value for session_id for the customer_session table.
getRespId	Retrieve the next available value for resp_id for the response table.
getTransId	Retrieve the next available value for trans_id for the trans table.

To call a stored procedure

- 1 Define a variable using the format Dim *<name of variable>*.
- 2 Call the stored procedure using the correct format and assign it to the variable.
- 3 Call the commit() procedure.

Example from login.asp

The syntax for obtaining the next available customer ID is shown below using an example from *login.asp*:

```
Dim sCustID

sCustID = CInt(clsSQL.callStoredProc("{ ? = call
dbo.getCustId(?) }"))

if sCustID <= 0 or clsSQL.sqlERROR = true then
    oSWCPLog.LogMessageFuncName ERR_LEVEL2, MODULE_NAME,
    1001, E1001,
    FILENAME
    response.Write "<p>" & E1001
    response.End
end    if

clsSQL.commit
if clsSQL.sqlERROR = true then
    oSWCPLog.LogMessageFuncName ERR_LEVEL3, MODULE_NAME,
    1018, E1018,
    FILENAME
    response.Write "<p>" & E1018
    response.End
end    if
```

ATTENTION

You may add error handling functionality to check if you called a stored procedure correctly or committed a transaction to the database. The error handling shown in the examples are Nortel Networks error checking procedures. They are designed to work with the application `swcpLogClt.exe` located in `..\Program Files\Common Files\Nortel Networks\Symposium Web Center Portal`.

Logging and string parsing

Introduction

There are two files that can be included in the application to handle logging and string parsing:

- SWCPLog.asp contains constants for error and tracing codes. These codes are used to implement logging.

ATTENTION

The log messages shown in the example web pages are intended for use with the application swcpLogClt.exe located in ..\Program Files\Common Files\Nortel Networks\Symposium Web Center Portal. You do not have to include this logging mechanism in your application.

- strConvert.vbs contains a function called replaceQuote(). This is used in the application to replace a single quote with two single quotes within the SQL implementation.

The syntax for including these files in a web page is as follows:

```
<!-- #include file="SWCPLog.asp" -->  
<!-- #include file="strConvert.vbs" -->
```

Handling session timeout

Introduction

In the sample provided, `swcp_SessionExpired.html` appears if the session is inactive for longer than the session time out value. The session timeout is set in the Internet Service Manager on the computer where the Customer Interface is installed. Upon installing, this is set to the default value of 20 minutes.

To check if a session is expired

- 1 Define a variable using the format `Dim <name of variable>`.
- 2 Assign a session variable to this variable.
- 3 Check if the variable is less than or equal to 0. If it is, include the `swcp_SessionExpired.html` file and set the `clsSQL` object to `Nothing`.

Example from `inserttrans.asp`

```
Dim iCustID
iCustID = CLng(Session("cust_id"))
if iCustID <= 0 then
    %>
    <!-- #include file="swcp_SessionExpired.html" -->
    <%
    if not clsSQL is nothing then Set clsSQL = Nothing
    Response.End
end if
```

This function has been implemented in the following example files:

- `inserttrans.asp`
- `login.asp`
- `replytotrans.asp`
- `response.asp`
- `transhist.asp`
- `transresp.asp`

- `updatecustomer.asp`

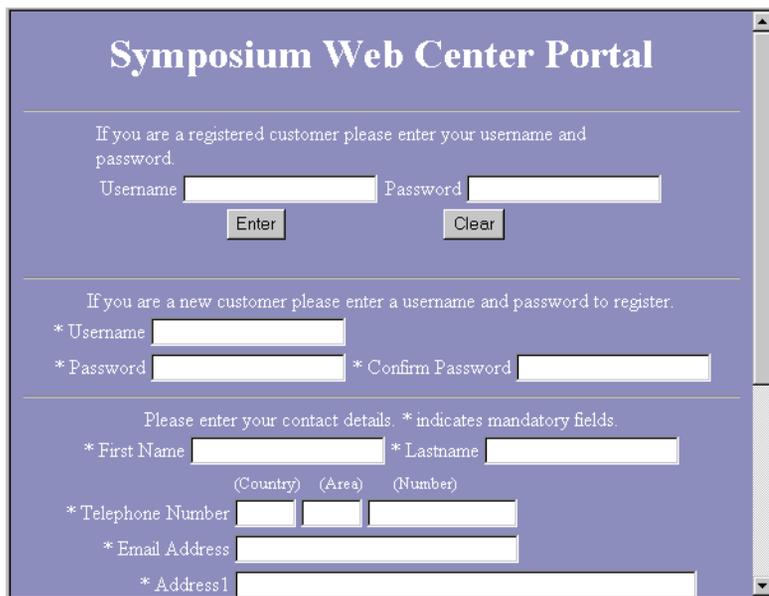
Overview of example implementation

Introduction

The example files referred to in this section are located in the `../InetPub/wwwroot/swcp-ci/plain` directory. There are similar example pages in the `../InetPub/wwwroot/swcp-ci/Financial` directory. You are not required to implement all of the pages featured in the example application.

login.html

The `login.html` page welcomes users to the application. It allows them to register as a new customer. It also allows customers to log on if they have already registered.



The screenshot shows a web browser window displaying the "Symposium Web Center Portal" login and registration page. The page has a blue background and white text. It is divided into three main sections:

- Registration Section:** At the top, it says "If you are a registered customer please enter your username and password." Below this are two input fields labeled "Username" and "Password", followed by "Enter" and "Clear" buttons.
- New Customer Registration Section:** Below that, it says "If you are a new customer please enter a username and password to register." This section includes three input fields: "* Username", "* Password", and "* Confirm Password".
- Contact Details Section:** At the bottom, it says "Please enter your contact details. * indicates mandatory fields." This section includes several input fields: "* First Name", "* Lastname", a telephone number field with sub-fields for "(Country)", "(Area)", and "(Number)", "* Telephone Number", "* Email Address", and "* Address1".

The `login.html` page contains two forms, `SWCPLOGIN` and `SWCPREGISTER`. The `SWCPLOGIN` form enables the user to enter his or her username and password, and log on to the Symposium Web Center Portal server. The `SWCPLOGIN` form's action URL links to the `login.asp` page. A command

parameter of 0 is passed along with the URL. The SWCPREGISTER form enables a new user to enter a new username, password, and contact information and then log on to the SWCP server. A command parameter of 2 is passed along with the URL. The command parameter options for the login.asp page are shown below:

Value	Description
0	Log on an existing user.
1	Display the form that will enable a logged on user to submit a transaction.
2	Register a new user.

The JavaScript functions are provided to validate the entries made to the form. You can change these functions to check for particular parameters. There are three Javascript functions that should be included; `getCallbackOpt()`, `checkField()`, and `validate()`. If you want to allow the user to send in more than one transaction after they are logged on, create a link to `login.asp`, passing a command value of 1. It contains a link to `transandcust.html` that allows a customer to submit a request without registering his or her details.

login.asp

The `login.asp` page allows you to collect the user's personal details, check his or her password, and enter all the information into the database to allow a new user to register for the first time. It has no user interface. When the user completes and submits the registration form in the `login.html` page, the `login.asp` page is called with a command value of 2. The form data passes to the `login.asp` page. If a user is already registered and is revisiting the site, then he or she is not asked to go through the registration process again. *login.asp* is called with a command value of 0.

The SQL statements in this page are explained as follows:

- The following query retrieves values from the customer table based on the username and password entered:

```
sSQL = "SELECT cust_id, cust_firstname, cust_surname,  
cust_phone_intl, cust_phone_area, cust_phone_number,
```

```
cust_email FROM customer WHERE cust_username = ' &
MyLogonName & "' AND cust_password = ' & MyPassword & "'
```

- The following query checks if the username exists in the database:

```
sSQL = "SELECT cust_username FROM customer WHERE
cust_username = '" & replaceSQuote(sUserName) & "'"
```

- The following statement inserts the details of a new customer into the database:

```
sSQL = "INSERT INTO customer (" & sFields & ") VALUES (" &
sValues & ")"
```

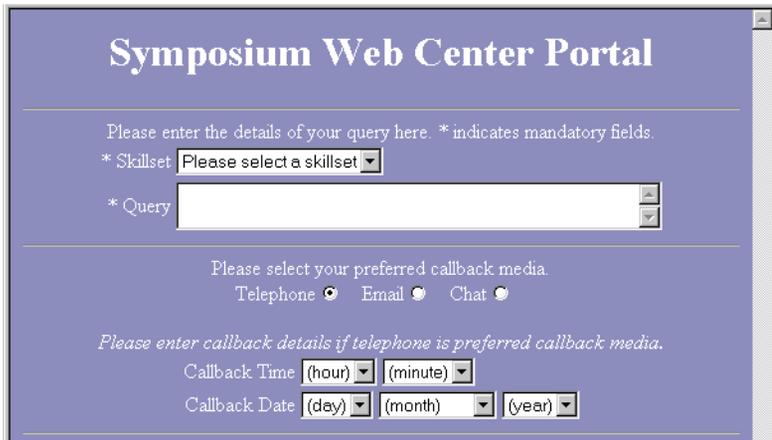
- The following statement enters the details of a session into the customer_session table:

```
sSQL = "INSERT INTO customer_session (session_id, cust_id,
login_time, last_access_time) VALUES (" &
CLng(iCISessionID) & ", " & CLng(iCustID) & ", '" &
sLoginTime & "', '" & sLoginTime & "')"
```

- If the session has expired, include the swcp_SessionExpired.html file.
- If the customer can successfully send the transaction, include the swcp_CustSubmitTrans.html file.
- If the customer logon fails, include the swcp_CustLoginFail.html file.
- If the customer registration fails, include the swcp_CustCreateFail.html file.

swcp_CustSubmitTrans.html

The swcp_CustSubmitTrans.html page allows customers to pick the skillset that is most suited to their query. They can enter a brief description of the query. They can select the preferred callback media. If they choose Telephone, they can choose the time they want to be called back.



The screenshot shows a web form titled "Symposium Web Center Portal". The form has a purple background and contains the following elements:

- A header section with the title "Symposium Web Center Portal".
- A sub-header: "Please enter the details of your query here. * indicates mandatory fields."
- A mandatory field for "Skillset" with a dropdown menu showing "Please select a skillset".
- A mandatory text input field for "Query".
- A section for selecting preferred callback media: "Please select your preferred callback media." with radio buttons for "Telephone", "Email", and "Chat".
- A sub-header: "Please enter callback details if telephone is preferred callback media."
- Fields for "Callback Time" consisting of two dropdown menus for "hour" and "minute".
- Fields for "Callback Date" consisting of three dropdown menus for "day", "month", and "year".

The `swcp_CustSubmitTrans.html` page is composed of several components. There is a drop-down box containing a list of skillsets in the contact center. The values of these skillsets should exactly match the values configured in the Administrator tool. A text area section contains the text of the query that is made by the customer.

Three radio buttons are provided for Telephone, Email, and Chat requests. They have the following values:

- telephone = 1
- email = 2
- chat = 5

If telephone is the preferred callback media, the date and time of the callback can be specified. The time section is composed of two drop-down list boxes. The hour drop-down list box has values from 0 to 23. The minute drop-down list box goes in 5 minute intervals from 0 to 55. The date section is composed of three drop-down list boxes. The date drop-down list box goes from 1 to 31. The month drop-down list box goes from January to December. The year drop-down list box must have the present year included. The action of this form should point the user to `inserttrans.asp` when a transaction has been submitted.

inserttrans.asp

This page submits a transaction to the Symposium Web Center Portal database and presents a confirmation page to the user. The page does not have a user interface. The SQL statements in this page are explained as follows:

- The following query gets the skillset_id from the skillset table:

```
sSQL = "SELECT skillset_id FROM skillset WHERE
skillset_name = '" & replace(sTransSkillsetName, "'", "'') &
''"
```

- The following query checks if there is an available agent for live chat:

```
sSQL = "SELECT u.user_id, u.user_surname, u.user_firstname,
u.user_status, u.user_class, u.user_dn, u.user_fax,
u.user_email, u.user_logon_id, u.user_pass FROM
user_details u, agent_skillset_mapping a WHERE u.user_id =
a.agent_id and a.skillset_id = " & CLng(sSkillsetID) & "
AND u.user_status=1"
```

- The following statement inserts a transaction to the database:

```
sSQL = "INSERT INTO trans (" & sFields & ") VALUES (" &
sValues & ")"
```

- If the session has expired, include the swcp_SessionExpired.html file.
- If there is no agent available for live chat, include the swcp_CustChatUnavailable.html file.
- If live chat is chosen as the response method, include the swcp_WebOnHoldConfirm.html file.
- If e-mail or telephone is chosen as the response method, include the swcp_TransConfirm.html file.

swcp_WebOnHoldConfirm.html

The swcp_WebOnHoldConfirm page is called if a customer requests a live chat response. Two functions are invoked when this page is loaded. WebOnHold() calls the Web Communication Manager URL, WebCollab/servlet/Webcollab.JoinConnection. It opens a window that displays web pages to a customer while they are waiting for an agent to answer their transaction. This window changes to an interactive chat window when an agent initializes a web communication. OpenCStream() calls sendCStream.asp is used for Click Stream

tracking. It enables the system to determine the sequence of pages that a customer clicked on before submitting a transaction. This page should provide information to customers on the request they have submitted. It should display a transaction number. It can also display other information, such as customer name, telephone number, e-mail address, skillset, objective, and callback time.

swcp_TransConfirm.html

The swcp_TransConfirm.html page is called if a customer requests an e-mail or a telephone response. One function is invoked when this page is loaded; OpenCStream(). A description of OpenCStream() is given above.

TransAndCust.html

The TransAndCust.html page has a user interface for unregistered users to submit a telephone callback, e-mail, or live chat transaction. It is a hybrid of login.html and swcp_CustSubmitTrans.html.

inserttransandcust.asp

The inserttransandcust.asp page submits a transaction to the Symposium Web Center Portal database for an unregistered user. It has no user interface. It contains five SQL statements. An explanation of these statements is shown in the login.asp and inserttrans.asp sections above.

- If there is no agent available for live chat, include the file swcp_CustChatUnavailable.html file.
- If live chat is chosen as the response method, include the swcp_WebOnHoldConfirm.html file.
- If e-mail or telephone is chosen as the response method, include the swcp_TransAndCustConfirm.html file.

Adding links to other pages

Introduction

At the bottom of some files, there are links to ASP pages. The links are described in the following table:

Function	Link/URL
Submit a Request	Login.asp?command=1
View Transaction History	TransHist.asp
Reply To Transaction	ReplyToTrans.asp?trans_id=<transaction number>
Update Account Detail	UpdateCustomer.asp?command=<0, 1 or 2>
Logout	Logout.asp

This section provides a description of these and other relevant pages.

TransHist.asp

The TransHist.asp page retrieves a list of transactions from the Symposium Web Center Portal database associated with the customer. It lists the transactions in a table and provides a link to the responses associated with each transaction. If you click the link, it directs you to

Transresp.asp?trans_id=<*transaction number*>. It contains one SQL query.

- The following query extracts the relevant information from the trans, skillset, and code_mapping tables:

```
sSQL = "SELECT trans_id, trans_cust_id, trans_arrival_time,
trans_objective, trans_pref_callback_media,
s.skillset_name, cl.text_value
trans_pref_callback_media_text " & _"FROM trans t, skillset
s , code_mapping cl " & "WHERE t.trans_cust_id = " &
```

```
CInt(iCustID) & " and t.trans_skillset_id = s.skillset_id
and c1.profile_id = 1 and " & "(c1.field_name =
'trans_pref_callback_media' and c1.numeric_value =
convert(int,t.trans_pref_callback_media)) ORDER BY
trans_id"
```

- If the session has expired, include the swcp_SessionExpired.html file.

TransResp.asp

The TransResp.asp page displays the responses associated with a transaction. It lists the responses in a table and provides a link to each response. If you click the link, it directs you to Response.asp?trans_id=<transaction number>&resp_id=<response number>. It contains two SQL statements.

- The following query retrieves the transaction details:

```
sSQL = "SELECT t.trans_arrival_time,
t.trans_pref_callback_media, c1.text_value
trans_pref_callback_media_text, s.skillset_name,
t.trans_objective FROM trans t, skillset s , code_mapping
c1 WHERE t.trans_skillset_id = s.skillset_id AND
c1.numeric_value = t.trans_pref_callback_media AND
t.trans_id = " & iTransID
```

- The following query retrieves the response details:

```
sSQL = "SELECT resp_id, trans_id, response_date,
response_text, response_attempt_no, attachment_location,
template_location, time_allocated, agent_comment,
response_method, number_used, email_subject, c1.text_value
response_method_text, c2.text_value callback_status_text,
u.user_firstname + ' ' + u.user_surname agent_name FROM
response r, code_mapping c1, code_mapping c2, user_details
u WHERE (c1.profile_id = 1 AND c1.field_name =
'response_method' AND c1.numeric_value =*
convert(int,r.response_method)) AND (c2.profile_id = 1 AND
c2.field_name = 'callback_status' AND c2.numeric_value =*
convert(int,r.callback_status)) AND r.agent_id *= u.user_id
AND trans_id = " & iTransID & " ORDER BY resp_id"
```

If the session has expired, include the swcp_SessionExpired.html file.

Response.asp

The Response.asp page displays the details associated with a particular response. It contains one SQL query.

- The following query retrieves details from the response, code_mapping, and user_details tables:

```
sSQL = "SELECT response_date, response_text,
response_attempt_no, attachment_location,
template_location, time_allocated, agent_comment,
response_method, number_used, email_subject, c1.text_value
response_method_text, c2.text_value callback_status_text,
u.user_firstname + ' ' + u.user_surname agent_name FROM
response r, code_mapping c1, code_mapping c2, user_details
u WHERE (c1.profile_id = 1 AND c1.field_name =
'response_method' AND c1.numeric_value =*
convert(int,r.response_method)) AND (c2.profile_id = 1 AND
c2.field_name = 'callback_status' AND c2.numeric_value =*
convert(int,r.callback_status)) AND r.agent_id *= u.user_id
AND resp_id = " & iRespID
```

- If the session has expired, include the swcp_SessionExpired.html file.

This page contains a link that allows a customer to reply to a transaction. If you click the link, it directs you to ReplyToTrans.asp?trans_id=<transaction number>.

ReplyToTrans.asp

The ReplyToTrans.asp page provides a user interface to enable users to create a new response to a transaction. It contains one SQL query.

- The following query retrieves the transaction details from the trans, skillset, and code_mapping tables:

```
sSQL = "SELECT t.trans_arrival_time,
t.trans_pref_callback_media, c1.text_value
trans_pref_callback_media_text, s.skillset_name,
t.trans_objective FROM trans t, skillset s , code_mapping
c1 WHERE t.trans_skillset_id = s.skillset_id AND
c1.numeric_value = t.trans_pref_callback_media AND
t.trans_id = " & iTransID
```

- If the session has expired, include the `swcp_SessionExpired.html` file.
- It redirects to `swcp_CustReplyToTrans.html`.

swcp_CustReplyToTrans.html

The `swcp_CustReplyToTrans.html` page provides a user interface for a customer to enter a response. After submitting the response, the user is directed to `InsertTrans.asp?trans_id = <transaction number>`.

insertresp.asp

The `insertresp.asp` page submits a response to the Symposium Web Center Portal database and presents a confirmation page to the user. The page does not have a user interface. The SQL statements in this page are explained as follows:

- This page contains five SQL statements.
- The following statement inserts a response into the response table:

```
sSQL = "INSERT INTO response (" & sFields & ") VALUES (" &
sValues & ")"
```

- The following query retrieves the transaction status:

```
sSQL = "Select trans_status from trans where trans_id = " &
iTransID
```

- The following section of code should be copied to your version of `insertresp.asp`. It checks the `trans_status`. If the `trans_status = 1` (Open), then it sets `trans_sub_status` to 17 (Awaiting New Reply). Otherwise, it sets `trans_sub_status` to 7 (New Reply).

This is necessary for the following scenario. A customer submits a request. An agent opens the transaction and sends a response. The `trans_status` is now Open. If the customer sends a new reply to this response, the `trans_status` is New Reply. If the original request is still Open, and the agent sets it to Pending or Closed, the New Reply will not be propagated to an agent unless the `trans_sub_status` is set accordingly.

The SQL statement updates the `trans_status` to 7 (New Reply) if the `trans_status` is not in Acquired status (for example, waiting to be dispatched by the DTH).

```

if (rtnTotalRows - 1) > 0 then
  if Clng(clsSQL.getColumnData("trans_status",1)) = 1
    then strSQLSeg = "trans_sub_status = 17"
  else
    strSQLSeg = "trans_sub_status = 7"
  end if

  'The trans_status is only updated if the current status
  of the transaction is not set to 5 or 15 - Acquired.
  if Clng(clsSQL.getColumnData("trans_status",1)) <> 5
  and Clng(clsSQL.getColumnData("trans_status",1)) <> 15
  then sSQL = "Update trans set trans_status = 7 where
  trans_id = " & iTransID
  clsSQL.applySQL(sSQL)
  if clsSQL.sqlERROR = TRUE then
    oSWCPLog.LogMessageFuncName ERR_LEVEL3,
    MODULE_NAME, 1008, E1008, FILENAME
    Response.Write E1008
    if not clsSQL is nothing then Set clsSQL = Nothing
    Response.End
  end if
end if

```

- The following statement updates trans_sub_status:

```

sSQL = "Update trans set " & strSQLSeg & " where
trans_id = " & iTransID & " and trans_status=" &
clsSQL.getColumnData("trans_status",1)
clsSQL.applySQL(sSQL)
if clsSQL.sqlERROR = TRUE then
  oSWCPLog.LogMessageFuncName ERR_LEVEL3,
  MODULE_NAME, 1008, E1008,
  FILENAME
  Response.Write E1008
  if not clsSQL is nothing then Set clsSQL = Nothing
  Response.End
end if
end if

```

- The following query retrieves the updated values from the response and code_mapping tables:

```

sSQL = "SELECT resp_id, response_text, c1.text_value
response_method_text, c2.text_value callback_status_text
FROM response r, code_mapping c1, code_mapping c2 WHERE

```

```
(c1.profile_id = 1 AND c1.field_name = 'response_method'  
AND c1.numeric_value =* convert(int,r.response_method)) AND  
(c2.profile_id = 1 AND c2.field_name = 'callback_status'  
AND c2.numeric_value =* convert(int,r.callback_status)) AND  
r.trans_id = " & iTransID & " AND r.resp_id = " & iRespID
```

Note: The page is redirected to `response.asp?trans_id=<transaction number>&resp_id=<response number>`.

UpdateCustomer.asp

The UpdateCustomer.asp page updates a customer's contact information in the database. The page does not have a user interface. It contains two SQL statements.

- The following query retrieves the customer's details:

```
sSQL = "SELECT cust_firstname, cust_surname,  
cust_phone_intl, cust_phone_area, cust_phone_number,  
cust_email, cust_address1, cust_address2, cust_address3,  
cust_address4, cust_address5, cust_postal_zip_code FROM  
customer WHERE cust_id = " & iCustID
```

- The following statement updates the customer's details:

```
sSQL = "UPDATE customer SET " & sFields & " WHERE cust_id =  
" & iCustID
```

- If the session has expired, include the `swcp_SessionExpired.html` file.
- If UpdateCustomer.asp is called with the command parameter 0 or 2, include `swcp_CustUpdate.html`.
- If UpdateCustomer.asp is called with the command parameter 1, include `swcp_CustDetailsUpdated.html`.

swcp_CustUpdate.html

The `swcp_CustUpdate.html` page provides a form to the customer to update his or her details. When the customer enters the details, the page is redirected to `UpdateCustomer.asp?command=1` to save the details to the database.

swcp_CustDetailsUpdated.html

The swcp_CustDetailsUpdated.html page displays the updated customer details to the customer.

logout.asp

The logout.asp page allows a customer to log off. It contains one SQL statement.

- The following statement updates the customer_session table:

```
sSQL = "UPDATE customer_session SET logout_time = '" &  
sLogoutTime & "', timeout = 0 WHERE session_id = " &  
CLng(Session("cust_session_id"))
```

It displays login.html to enable the customer to log on again.

Click Stream Tracking

Introduction

SendCStream.asp is required to implement Click Stream Tracking. For more information, refer to “Configuring Click Stream Tracking” on page 286. If you want to use Click Stream Tracking on your web site, include this file in the same directory as your other web pages. This page is called from the openCStream() function as follows: SendCStream.asp?tid=<*transaction number*>. For more information, refer to “swcp_WebOnHoldConfirm.html” on page 563.

Enabling the Web Communication Manager

Introduction

There are two methods for initiating a Web Communication session—real time and non-real time:

- The real time method begins immediately after a customer requests a live chat from a web page. You cannot schedule the real time initiation of the Web Communication session.
- The non-real time method is invoked when a customer submits a request for a telephone response. The agent responds to the customer via telephone. The customer needs help to fill out an online application form. The agent tells the customer to navigate to a particular web page and enter the session ID associated with the transaction on the agent's desktop. At this point, the customer is redirected to a live chat interface.

Real time scenario

Two web pages appear when a customer requests web communication. The Web Communication confirmation page appears in the browser where the customer made the request. The Web On Hold page appears in a new browser window.

To implement the real time method

- 1 In `inserttrans.asp`, there is a check to see if an agent is available for live chat. The customer should be advised if there are no agents logged on to accept their request. In the example pages, this is achieved by including `swcp_CustChatUnavailable.html`.
- 2 After inserting the transaction to the database, the customer ID is redirected to `swcp_WebOnHoldConfirm.html`.
- 3 The `swcp_WebOnHoldConfirm.html` page displays a confirmation window to customers informing them that their request was accepted and that they will be placed on hold until an agent is available. It calls the following two functions: `WebOnHold()` and `openCStream()`.
- 4 `WebOnHold()` calls the servlet `/WebCollab/servlet/WebCollab.JoinConnection`. The `conn_id` parameter should be set to the

transaction number (iTransID) and passed to this servlet. This allows the session to use an existing connection to the database. The servlet does not require any other parameters. The Web On Hold display window should contain a scroll bar and be resizable. It should not contain a toolbar. This prevents a customer from changing to a different page.

- 5 The openCStream() function calls sendStream.asp?tid=<transaction number>.

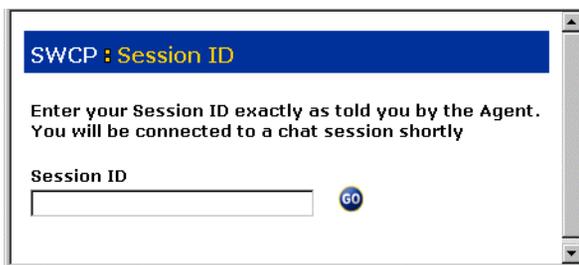
Non-real time scenario

In this example, the agent tells the customer to navigate to ../swcp-ci/Plain/CustJoin.html, and then enter the session ID associated with the transaction on the agent's desktop.

CustJoin.html

The CustJoin.html page enables the customer to enter a session ID to commence a Web Communication session. When you enter the session ID, you are redirected to CustJoin.asp. The session ID consists of the transaction ID plus a four-digit password. The transaction ID and password are extracted from the session ID and passed as URL parameters to the servlet, /WebCollab/servlet/WebCollab.JoinConnection.

This page should include the JavaScript function joinConn(). It must have a <noscript> and </noscript> tag section to inform the customer that it requires JavaScript to be enabled on the browser, and that it has failed the request.



The screenshot shows a web browser window with a blue header bar containing the text "SWCP : Session ID". Below the header, the text reads: "Enter your Session ID exactly as told you by the Agent. You will be connected to a chat session shortly". Underneath this text is a text input field labeled "Session ID" and a blue "GO" button.

CustJoin.asp

The CustJoin.asp page initiates a Web Communication between the customer and the agent. It achieves this by redirecting the customer to `/WebCollab/servlet/WebCollab.JoinConnection?conn_id=<transaction number>&username=<customer name>&passwd=<customer password>`. It contains two SQL queries.

- The following query retrieves information from the trans table:

```
sSQL = "SELECT trans_id, trans_cust_id, trans_open_time,
trans_arrival_time, trans_status, trans_agent_id,
trans_skillset_id, trans_source, trans_objective,
trans_callback_date, trans_pref_callback_media,
trans_timezone FROM trans WHERE trans_id=" & sTransId
```

- The following query retrieves information from the customer table:

```
sSQL = "SELECT cust_id, cust_firstname, cust_surname,
cust_address1, cust_address2, cust_address3, cust_address4,
cust_address5, cust_email, cust_phone_intl,
cust_phone_area, cust_phone_number, cust_fax_intl,
cust_fax_area, cust_fax_number, cust_postal_zip_code,
cust_login_page, c1.text_value cust_login_page_text FROM
customer c, code_mapping c1 WHERE (c1.profile_id=1 AND
c1.field_name = 'cust_login_page' AND c1.numeric_value =*
c.cust_login_page) AND cust_id =" & iCustId
```

- If the incorrect number of digits is entered for the session ID, include the `swcp_CustJoinFail.html` file.
- If an invalid session ID is entered, include the `swcp_CustJoinInvalidTransID.html` file.

Web Communication Manager windows

Introduction

This section provides information about the Web Communication Manager windows.

Agent Web Chat Window (agtctl.jsp)

The Agent Web Chat window is a frame page. It consists of the pages listed in the following table:

Page	Description	Height	Width
agtctl.jsp	Agent Main Chat Window	500	450
ident.html	Nortel Networks logo	50	450
sep.html	Divider	5	450
sessid.jsp	ID of the chat session	42	450
chatspl.html	Chat display	125	450
agtchatcntrl.html	Chat controls	125	450
agtpagetools.html	Page tools	145	450
swrsident.html	SWCP logo	30	450

Customer Web Chat Window (custctl.jsp)

The Customer Web Chat window is a frame page. It consists of the pages listed in the following table:

Page	Description	Height	Width
custctl.jsp	Customer Main Chat Window	477	450
ident.html	Nortel Networks logo	50	450
sep.html	Divider	5	450
sessid.jsp	ID of the chat session	42	450
chatspl.html	Chat display	125	450
custchatcntrl.html	Chat controls	80	450
custpagetools.html	Page tools	150	450
swrsident.html	Symposium Web Center Portal logo	30	450

Other Web Communication Manager pages

Page	Description	Height	Width
agentwait.htm	Bottom tool bar of the Web On Hold window.	80	Not specified.
ConnClose.html	Displayed to customer when Web Chat session ends.	Same as the main chat window.	Not specified.
HoldTimeOut.html	Displayed to customer when the Web On Hold times out.	Same as the main chat window.	Not specified.

Summary

Page	Purpose
Login.html	The home page. Enables the user to enter a username and password or to register as a new user.
Login.asp	Contains ASP logic to validate user logon or to register a new user. This page also has a user interface for submitting a telephone callback, e-mail, or live chat transaction.
Inserttrans.asp	Contains ASP logic to submit a transaction to the Symposium Web Center Portal database and present a confirmation page to the user. This page has no user interface.
Inserttransandcust.asp	Contains ASP logic to submit a transaction to the Symposium Web Center Portal database for an unregistered user. This page has no user interface.

Page	Purpose
Transandcust.html	This page has the user interface for unregistered users to submit a telephone callback, e-mail, or live chat transaction.
Transhist.asp	Contains ASP logic to fetch a list of transactions from the Symposium Web Center Portal database from the past associated with the user. This page lists the transaction in an HTML table and provides a link to each transaction.
Transresp.asp	Contains ASP logic to display all the past responses generated for a transaction. This page lists the responses in an HTML table and provides a link to each response.
Response.asp	Contains ASP logic to display the details of a particular response.
Repytotrans.asp	Provides a user interface to enable users to create a new response to a transaction.
Insertresp.asp	Contains ASP logic to create a new response in the Symposium Web Center Portal database. This page has no user interface.
Updatecustomer.asp	Contains ASP logic to enable a user to update his or her contact information.
Logout.asp	Contains ASP logic to log off a user.
SendCStream.asp	Contains ASP logic for Click Stream information for requests submitted by the customer to the External Web server.

Page	Purpose
SessionExpired.asp	Contains a notification that the session timed out. It also contains a link to the Login.html.

Deploying the Customer Interface

Introduction

This section explains how to deploy the Customer Interface using the Internet Service Manager.

To deploy the Customer Interface

- 1 Install the Customer Interface and the Web Communication Manager. For more information, see “Installing the Customer Interface” on page 142, and “Installing the Web Communication Manager” on page 149.
- 2 Create a new folder in `..\inetpub\wwwroot\swcp-ci`.
Note: The name of the folder will be used in the URL for the customer web page.
- 3 Perform one of the following tasks:

IF	THEN
you want to modify the existing Customer Interface	copy all of the files from the <code>..\inetpub\wwwroot\swcp-ci\plain</code> folder into the new folder, and modify the files.
you want to create a new Customer	copy the new Customer Interface into the new Interface.

Appendix F

Symposium Web Center Portal E-mail Interface API definitions

In this appendix

E-mail Interface API definitions

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E-mail Interface API definitions

getEmailCount

Parameters	globalSession As Long globalMailSvrType As String	<ul style="list-style-type: none"> ■ Session handle to current mail server connection ■ Name of e-mail protocol to use
Returns	Number of e-mails within currently indexed mailbox.	
Purpose	Queries the mail server to determine the number of e-mails in the currently indexed mailbox.	

getToField

Parameters	iEmailIndex As Integer globalSession As Long globalMailSvrType As String	<ul style="list-style-type: none"> ■ Index to e-mail ■ Session handle to current mail server connection ■ Name of e-mail protocol to use
Returns	Recipients in To Field	
Purpose	Queries currently indexed e-mail for the list of recipients on the To list. Returns list with semicolon delimiters.	

getCCField

Parameters	iEmailIndex As Integer globalSession As Long globalMailSvrType As String	<ul style="list-style-type: none"> ■ Index to e-mail ■ Session handle to current mail server connection ■ Name of e-mail protocol to use
Returns	Recipients in CC Field	
Purpose	Queries currently indexed e-mail for the list of recipients on the To list. Returns list with semicolon delimiters.	

getSubject

Parameters	iEmailIndex As Integer globalSession As Long globalMailSvrType As String	<ul style="list-style-type: none"> ■ Index to e-mail ■ Session handle to current mail server connection ■ Name of e-mail protocol to use
Returns	Subject of e-mail	
Purpose	Queries currently indexed e-mail for the subject of the e-mail.	

getText

Parameters	iEmailIndex As Integer globalSession As Long globalMailSvrType As String	<ul style="list-style-type: none">■ Index to e-mail■ Session handle to current mail server connection■ Name of e-mail protocol to use
Returns	Text body of e-mail.	
Purpose	Queries currently indexed e-mail for the subject of the e-mail.	

getFromDisplayName

Parameters	iEmailIndex As Integer globalSession As Long globalMailSvrType As String	<ul style="list-style-type: none">■ Index to e-mail■ Session handle to current mail server connection■ Name of e-mail protocol to use
Returns	Display name of e-mail sender.	
Purpose	Queries currently indexed e-mail for the display name of the e-mail sender.	

getFromEmailField

Parameters	iEmailIndex As Integer globalSession As Long globalMailSvrType As String	<ul style="list-style-type: none"> ■ Index to e-mail ■ Session handle to current mail server connection ■ Name of e-mail protocol to use
Returns	Display e-mail address of originator.	
Purpose	Queries currently indexed e-mail for the originator's e-mail address.	

getAttachment

Parameters	iEmailIndex As Integer globalSession As Long IAttachmentIndex As String globalMailSvrType As String	<ul style="list-style-type: none"> ■ Index to e-mail ■ Index to attachment file ■ Session handle to current mail server connection ■ Name of e-mail protocol to use
Returns	Filename of currently indexed attachment of currently indexed e-mail.	
Purpose	Queries currently indexed attachment of currently indexed e-mail for attachment filename.	

getAttachmentCount

Parameters	iEmailIndex As Integer globalSession As Long globalMailSvrType As String	<ul style="list-style-type: none"> ■ Index to e-mail ■ Session handle to current mail server connection ■ Name of e-mail protocol to use
Returns	Count of number of attachments in currently indexed e-mail.	
Purpose	Queries currently indexed e-mail for the number of attachment files.	

logonMailbox

Parameters	iEmailIndex As Integer globalSession As Long globalMailSvrType As String	<ul style="list-style-type: none"> ■ Index to e-mail ■ Session handle to current mail server connection ■ Name of e-mail protocol to use
Returns	Session handle to mailbox.	
Purpose	Establishes connection to the mailbox to monitor.	

logoffMailbox

Parameters	iEmailIndex As Integer globalSession As Long globalMailSvrType As String	<ul style="list-style-type: none"> ■ Index to e-mail ■ Session handle to current mail server connection ■ Name of e-mail protocol to use
Returns	Boolean value to indicate success or failure terminating mailbox connection.	
Purpose	Abandons current mailbox logon.	

DeleteEmail

Parameters	globalSession As Long iEmailIndex As Integer globalMailSvrType As String	<ul style="list-style-type: none"> ■ Session handle to current mail server connection ■ Index to e-mail ■ Name of e-mail protocol to use
Returns:	Boolean status of delete operation.	
Purpose	Deletes the currently indexed e-mail from the mailbox.	

sendEmail

Parameters	globalSession As Long globalMailSvrType As String sTo As String sBCC As String sSubject As String sText As String sAttachmentDir As String	<ul style="list-style-type: none"> ■ Session handle to current mail server connection ■ Index to e-mail ■ Name of e-mail protocol to use
Returns	SUCCESS = 0 ERR_UNKNOWN_RECIPIENT = 1 ERR_ATTACHMENT_NOT_FOUND = 2 ERR_UNKNOWN = 3	<ul style="list-style-type: none"> ■ E-mail successfully sent ■ Could not find a recipient ■ Could not find an attachment ■ Other unspecified error
Purpose	Composes and sends e-mail with any attachments to recipients.	

Appendix G

Event codes

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Administrator event codes

Introduction

This section provides a listing of the Administrator event codes.

Event codes

Event code	Message	Description	Severity	Action
4000	Failed to check for unassigned skillsets in the database, database may be down.	The database is not functioning properly.	Minor	Make sure that the Administrator host computer can communicate with the Symposium Web Center Portal server and that the database services are running. Verify the log files to make sure the database is running properly. If necessary, restart Sybase.

Event code	Message	Description	Severity	Action
4001	Error during validating credentials for login. Check licensing, database connection.	Problem with the database connection.	Major	Make sure that the Administrator host computer can communicate with the Symposium Web Center Portal server and that the database services are running. Verify the log files to make sure the database is running properly. If necessary, restart the Symposium Web Center Portal server.
4002	Cannot start application. Check licensing, database connection.	Problem with the database connection.	Major	Make sure that the Administrator host computer can communicate with the Symposium Web Center Portal server and that the database services are running. Verify the log files to make sure the database is running properly. You may need to restart the Symposium Web Center Portal server.

Event code	Message	Description	Severity	Action
4003	Cannot connect to database (SWRS2DB).	Problem with the database connection.	Major	Make sure that the Administrator host computer can communicate with the Symposium Web Center Portal server and that the database services are running. Verify the log files to make sure the database is running properly. You may need to restart the Symposium Web Center Portal server.
4004	Cannot display main window. Possible licensing problems.	Problem with the license file.	Major	Make sure that the Administrator host computer can communicate with the Symposium Web Center Portal server and that the database services are running. Verify the log files to make sure the database is running properly. If necessary, replace the license file and restart the Administrator.

Customer Interface event codes

Introduction

This section provides a listing of the event codes for the Customer Interface.

Event codes

Event code	Message	Description	Severity	Action
1000	Create new user failed. This can be caused by a database connection error.	The database connection is not working properly.	Major	Verify the database connection.
1001	Cannot get customer ID from database. Database connection is not available at this time. Please check the database connection.	The database connection is not working properly.	Major	Verify the database connection.
1002	Cannot get new transaction ID from the database. Database connection is not available at this time. Please check the database connection.	The database connection is not working properly.	Major	Verify the database connection.
1003	Cannot add new transaction to the database. Database connection is not available at this time. Please check the database connection.	The database connection is not working properly.	Major	Verify the database connection.

Event code	Message	Description	Severity	Action
1004	Data access failed. The Symposium Web Center Portal server is down or the database connection is not available. Please check the database connection.	The database connection is down or some other Symposium Web Center Portal components are down, so the data cannot be retrieved.	Major	Verify the database connection.

Agent Interface event codes

Introduction

This section provides a listing of the event codes for the Agent Interface.

Event codes

Event codes	Message	Severity	Action
3001	Database connection error. Please try relogging on.	Major	Try to log on to the Agent Interface again.
3002	SWRSWebAgent COM object cannot be instantiated. Please reregister the DLL.	Major	Register the DLL again.
3003	Unable to get license from the License Server. Please ensure the license is valid.	Major	Check that your license is valid.
3004	Remote Scripting failed. See log for more details.	Major	For more information, refer to the log file.
3005	Database Error. See log for more details.	Major	For more information, refer to the log file.
3006	Wrong Login/Password entered. Please try again.	Major	Reenter your user ID and password.
3007	Already logged in. If you are locked out of the system, please ask your supervisor to log you out.	Major	The supervisor must log you off the system.
3008	Unknown Error. Please try your operation again.	Major	Perform the operation again.

Event codes	Message	Severity	Action
3009	Cannot find RSLogon.asp. Please ensure the ASP is on the AUI server.	Major	
3010	Cannot connect to RSLogon.asp. This file may be corrupted. Please install a fresh copy.	Major	Install a fresh copy of the RSLogon.asp file.
3011	Invalid remote object. Please ensure the network is up.	Major	Check the network.
3012	Maximum number of agents reached. Please buy more licenses.	Major	
3013	License server error. Please ensure that the license server is running and accessible over the network.	Major	
3014	COM object creation error. Please ensure that the COM object is installed.	Major	
3015	RMI Registry Service Failed. Please shut down and restart the AUI server.	Major	Shut down and restart the Agent Interface server.
3016	COM object can't reconnect to the database. Please ensure that the database is up and running.	Major	

Event codes	Message	Severity	Action
3017	Can't change txn status to open. Check the transaction record in the database.	Major	Check the transaction record in the database.
3018	Unable to store Agent Information. Pushed transaction will not work. Please ensure the IE security levels are set properly.	Major	Ensure the Internet Explorer security levels are set properly.
3019	Unable to retrieve Customer Information. Server may be busy. Please try again.	Minor	Try the operation again.
3020	Unable to retrieve the number of attachments. Server may be busy. Please try again.	Minor	Try the operation again.
3021	Unable to retrieve the inbound attachment directory. Server may be busy. Please try again.	Minor	Try the operation again.
3022	Unable to retrieve the outbound attachment directory. Server may be busy. Please try again.	Minor	Try the operation again.
3023	Unable to retrieve attachment filenames. Server may be busy. Please try again.	Minor	Try the operation again.

Event codes	Message	Severity	Action
3024	Unable to validate the agent state. Please login again.	Major	Log on again.
3025	Unable to determine the agent's skillsets. Please try the operation again.	Minor	Try again.
3026	Unable to retrieve the attachment list. Server may be busy. Please try again.	Minor	Try the operation again.
3027	Unable to retrieve the Phone callback status list. Server may be busy. Please try again.	Minor	Try the operation again.
3028	Unable to retrieve the General callback status list. Server may be busy. Please try again.	Minor	Try the operation again.
3029	Unable to retrieve the General Response Method list. Server may be busy. Please try again.	Minor	Try the operation again.
3030	Unable to determine the customer. Please try again.	Minor	Try the operation again.
3031	Unable to update the customer's records. Server may be busy. Please try again.	Minor	Try the operation again.
3032	Invalid Transaction ID. Please try the operation again.	Minor	Try the operation again.

Event codes	Message	Severity	Action
3033	Invalid Response ID. Please try the operation again.	Minor	Try the operation again.
3034	Unable to retrieve the transaction record. Server may be busy. Please try again.	Major/ Minor	Try the operation again.
3035	Unable to create a response record. Server may be busy. Please try again.	Major	Try the operation again.
3036	Unable to display the transaction record. Server may be busy. Please try again.	Major/ Minor	Try the operation again.
3037	Unable to retrieve the response list. Server may be busy. Please try again.	Minor	Try the operation again.
3038	Unable to update the transaction status. Server may be busy. Please try again.	Major/ Minor	Try the operation again.
3039	Unable to transfer the transaction. Server may be busy. Please try again.	Major	Try the operation again.
3040	Unable to retrieve the skillset list. Server may be busy. Please try again.	Minor	Try the operation again.

Event codes	Message	Severity	Action
3041	Unable to retrieve the customer transaction history. Server may be busy. Please try again.	Minor	Try the operation again.
3042	Unable to update the transaction. Server may be busy. Please try again.	Major	Try the operation again.
3046	Unable to find the requested transaction(s). Server may be busy. Please try again.	Minor	Try the operation again.
3047	Unable to retrieve the extended data. Server may be busy. Please try again.	Major	Try the operation again.
3048	Unable to log off the user. Server may be busy. Please try again.	Major	Try the operation again.
3049	Unable to log on the user. Server may be busy. Please try again.	Major	Try the operation again.
3050	Unable to retrieve the agent's name. Server may be busy. Please try again.	Minor	Try the operation again.

Web Communication Manager

Introduction

This section provides a listing of the event codes for the Web Communication Manager.

Event codes

Event codes	Message	Description	Severity	Action
1504	WebCollabInit.doGet() : WCM Initialization Failed. Please ensure Allaire Jrun server is running. Also check if the Global Option configuration is missing.	The Web Communication Manager failed to initialize.	Critical	Check the status of External Web server.
1520	ChatJoin.doPost(): Failed to create customer session. Please ensure the Web Server is up.	The Web Communication Manager failed to create a customer chat session.	Major	Check the status of External Web server.
1522	Fail to retrieve customer e-mail address. Please ensure the Database server is up.	An e-mail address is needed to send chat log to customers.	Minor	Check database and database connection.
1525	Failed to save chat log. Please ensure the Database server is up.	The chat log is saved in the database if the option is turned on.	Major	Check database and database connection.

Event codes	Message	Description	Severity	Action
1528	Failed to find the e-mail header for chat log. Please ensure the header.txt file exists.	The Web Communication Manager obtains the header from header.txt for chat log e-mails.	Major	Make sure header.txt exists on the External Web Server.
1529	Failed to e-mail chat log to customer. Please ensure the Database server is up.	The chat log e-mails are stored in the database for OMM to pick up.	Major	Check database and database connection.
1531	Failed to add session to connection. The transaction number is invalid.	The Web Communication Manager failed to create customer/agent chat session because the transaction ID is invalid.	Minor	None
1538	ConnectionPool.getConnection(): Problem with connection, replacing with new one.	The JDBC connection is down. The Web Communication Manager replaced the JDBC connection with a new connection.	Minor	None
1546	JoinConnection.doPost(): Transaction type is Callback.	The callback type transaction is invalid for web chat.	Minor	None

Event codes	Message	Description	Severity	Action
1550	Failed to retrieve agent information. Please ensure the Database server is up.	Failed to retrieve agent information for chat session.	Minor	Check database and database connection.
1551	Failed to create/add agent session.	The Web Communication Manager failed to create agent chat session. This may be caused by an invalid connection or transaction number.	Minor	Check the status of External Web server.
1552	Failed to create/add Connection/Session for customer.	The Web Communication Manager failed to create customer chat session. This may be caused by an invalid connection or transaction number.	Minor	Check the status of External Web server.
1553	Failed to retrieve Push Page URL List. Please ensure the Database server is up.	Failed to obtain agent push page URL list from the database for web chat.	Minor	Check database and database connection.
1554	Failed to retrieve Web On Hold information. Please ensure the Database server is up.	Failed to obtain Web On Hold information from the database.	Minor	Check database and database connection.

Symposium eMail Manager event codes

Introduction

This section provides a listing of the event codes for the Symposium eMail Manager.

E-mail Services Interface (SISEmail.exe) event codes

Event code	Message	Description	Severity	Action
7000	VB Error	A Visual Basic error message containing the error number and description of the error.	Minor	If you see these errors often, either reinstall the Symposium eMail Manager, or install the latest PEPs from Nortel Networks.
7001	Protocol Not Supported	The call center software is not configured properly.	Major	Ensure that the <i>server type</i> value in the <i>ims.ini</i> and <i>oms.ini</i> files is POP3.

Event code	Message	Description	Severity	Action
7003	Attachment not found.	The system cannot find the attachment.	Minor	Double-check that the inbound and outbound attachment directories listed in the Administration Interface can be accessed by the Symposium Web Center Portal server. Make sure the Symposium eMail Manager service has permissions to read the files from those directories, and make sure the permissions on the actual files allow the user to read these files.

POP3/SMTP e-mail services interface (PSIEmail.exe) event codes

Event code	Message	Description	Severity	Action
7101	Decoding Failed:	The decoding of the e-mail message or of the attachment failed.	Minor	Ensure the attachment directory is configured properly.

Event code	Message	Description	Severity	Action
7104	Failed to open file to save attachment. Please check the Attachment settings in the Administrator Interface, and the permissions on the attachment directory.	The system could not save the attachment.	Minor	Verify the inbound and outbound attachment directories.
7105	Failed to decode e-mail body text.	The e-mail message decoding failed.	Minor	None
7106	Failed to send command to the mail server.	The system failed to send a command to the mail server.	Minor	Verify the connection to the mail server and that the mail services are running.
7112	POP3 server did not respond correctly to the RETR response.	A response from the mail server indicates that there was an error, or that the connection to the server failed.	Minor	Verify the connection to the mail server and that the mail services are running.
7113	Error retrieving the LIST response from the POP3 server.	A response from the mail server indicates that there was an error, or that the connection to the server failed.	Minor	Verify the connection to the mail server and that the mail services are running.

Event code	Message	Description	Severity	Action
7114	Error retrieving the UIDL response from the POP3 server.	A response from the mail server indicates that there was an error, or that the connection to the server failed.	Minor	Verify the connection to the mail server and that the mail services are running.
7115	Error retrieving the STAT response from the POP3 server.	A response from the mail server indicates that there was an error, or that the connection to the server failed.	Minor	Verify the connection to the mail server and that the mail services are running.
7116	Failed to retrieve message.	The system failed to retrieve a message.	Minor	Verify the connection to the mail server and that the mail services are running.
7117	Failed to decode attachment.	The system failed to decode an attachment.	Minor	Ensure that the attachment directory is configured properly.
7119	Already disconnected from POP3 Server.	The Symposium Web Center Portal server was already disconnected from the POP3 server. Possible intermittent connection issue.	Minor	Refer to the E-mail POP3SMTP.log file for messages regarding this issue.
7154	An unexpected response was received from the SMTP server.	A response from the mail server indicates that there was an error, or that the connection to the server failed.	Minor	Verify the connection to the mail server and that the mail services are running.

Event code	Message	Description	Severity	Action
7155	An unexpected error occurred while sending the HELO command.	A response from the mail server indicates that there was an error, or that the connection to the server failed.	Minor	Verify the connection to the mail server and that the mail services are running.
7156	Failed to send command to the SMTP server.	A response from the mail server indicates that there was an error, or that the connection to the server failed.	Minor	Verify the connection to the mail server and that the mail services are running.
7157	An unexpected QUIT response was received.	A response from the mail server indicates that there was an error, or that the connection to the server failed.	Minor	Verify the connection to the mail server and that the mail services are running.
7158	An unexpected MAIL response was received.	A response from the mail server indicates that there was an error, or that the connection to the server failed.	Minor	Verify the connection to the mail server and that the mail services are running.
7159	An unexpected DATA response was received.	A response from the mail server indicates that there was an error, or that the connection to the server failed.	Minor	Verify the connection to the mail server and that the mail services are running.
7166	Failed to send MIME header.	A response from the mail server indicates that there was an error, or that the connection to the server failed.	Minor	Verify the connection to the mail server and that the mail services are running.

Event code	Message	Description	Severity	Action
7167	Failed to send attachment.	A response from the mail server indicates that there was an error, or that the connection to the server failed.	Minor	Verify the connection to the mail server and that the mail services are running.
7168	Failed to send end of message indicator.	A response from the mail server indicates that there was an error, or that the connection to the server failed.	Minor	Verify the connection to the mail server and that the mail services are running.
7160	An unexpected end of message response was received.	A response from the mail server indicates that there was an error, or that the connection to the server failed.	Minor	Verify the connection to the mail server and that the mail services are running.
7164	Error retrieving the RCPT response from the SMTP server.	A response from the mail server indicates that there was an error, or that the connection to the server failed.	Minor	Verify the connection to the mail server and that the mail services are running.
7160	An unexpected end of message response was received.	A response from the mail server indicates that there was an error, or that the connection to the server failed.	Minor	Verify the connection to the mail server and that the mail services are running.
7162	Error retrieving the RSET response from the SMTP server.	A response from the mail server indicates that there was an error, or that the connection to the server failed.	Minor	Verify the connection to the mail server and that the mail services are running.

Event code	Message	Description	Severity	Action
7201	Failed to create socket.	The Symposium Web Center Portal server failed to connect to the mail servers.	Major	Verify the connection to the mail server and that the mail services are running.
7202	DNS lookup of server failed. Please verify the POP3 mail server name or IP address in the Administrator Interface and that the DNS server addresses are correct in the Networking Control Panel.	The Symposium Web Center Portal server failed to connect to the mail servers. The Symposium Web Center Portal server failed to get the IP address from the mail server.	Major	Verify your network settings in the network control panel and make sure the mail server and the Symposium Web Center Portal servers can connect to each other.
7203	Could not connect to the POP3 mail server.	The Symposium Web Center Portal server failed to connect to the mail servers. The Symposium Web Center Portal server failed to get the IP address from the mail server.	Major	Verify your network settings in the network control panel and make sure the mail server and the Symposium Web Center Portal servers can connect to each other.

Event code	Message	Description	Severity	Action
7204	Failed to read a command response from the POP3 server after command:	Symposium Web Center Portal could not retrieve the response from the POP3 server.	Major	Verify your network settings in the network control panel and make sure the mail server and the Symposium Web Center Portal servers can connect to each other.
7205	Failed to send login command to the mail server:	A response from the mail server indicates that there was an error, or that the connection to the server failed.	Major	Verify your network settings in the network control panel and make sure the mail server and the Symposium Web Center Portal servers can connect to each other.
7206	Socket error when receiving data. Please check the connection between the Symposium eMail Manager and the POP3 server.	A response from the mail server indicates that there was an error, or that the connection to the server failed.	Major	Verify your network settings in the network control panel and make sure the mail server and the Symposium Web Center Portal servers can connect to each other.

Event code	Message	Description	Severity	Action
7207	Failed to connect socket as there was a socket error. Please check the connection between the Symposium eMail Manager and the mail server.	The Symposium Web Center Portal server failed to connect to the mail servers.	Major	Verify your network settings in the network control panel and make sure the mail server and the Symposium Web Center Portal servers can connect to each other.
7212	Failed to log on to mailbox. The connection to the POP3 server could not be established, or the username or password for the mailbox is incorrect.	The connection to the POP3 server failed, or the logon to the POP3 server was incorrect.	Major	Verify your network settings in the network control panel, and make sure the mail server and the Symposium Web Center Portal servers can connect to each other. Verify the mailbox settings on the e-mail server and the e-mail settings in the Administrator Interface.

Event code	Message	Description	Severity	Action
7213	Connection to POP3 server failed. Please verify the connection between the Symposium eMail Manager and the POP3 server.	The connection to the POP3 server failed.	Major	Verify your network settings in the network control panel and make sure the mail server and the Symposium Web Center Portal servers can connect to each other.
7214	Failed to gather statistics from the mail server. Please verify the connection between the Symposium eMail Manager and the POP3 server.	A response from the mail server indicates that there was an error, or that the connection to the server failed.	Major	Verify the connection to the mail server and that the mail services are running.

Event code	Message	Description	Severity	Action
7215	Failed to disconnect from the POP3 server. The connection to the POP3 server may have already been disconnected. Please verify the connection between the Symposium eMail Manager and the POP3 server.	The Symposium Web Center Portal server was already disconnected from the POP3 server. Intermittent connection issue.	Major	For more information, refer to previous error messages in the e-mail POP3SMTP.log file.
7220	Timeout when receiving response from server. Please check the e-mail server settings in the Administrator Interface and that the Symposium eMail Manager can contact the POP3 server.	A timeout occurred when expecting data from the e-mail server.	Major	Verify the connection to the mail server and that the mail services are running.

Event code	Message	Description	Severity	Action
7301	Failed to create socket.	The Symposium Web Center Portal server failed to connect to the mail servers.	Major	Verify the connection to the mail server and that the mail services are running.
7302	DNS lookup of server failed. Please verify the SMTP mail server name or IP address in the Administrator Interface and that the DNS server addresses are correct in the Networking Control Panel.	The Symposium Web Center Portal server failed to connect to the mail servers. The Symposium Web Center Portal server failed to get the IP address from the mail server.	Major	Verify your network settings in the network control panel and make sure the mail server and the Symposium Web Center Portal servers can connect to each other.
7303	Could not connect to the SMTP mailbox.	The Symposium Web Center Portal server failed to connect to the mail servers. The Symposium Web Center Portal server failed to get the IP address from the mail server.	Major	Verify your network settings in the network control panel and make sure the mail server and the Symposium Web Center Portal servers can connect to each other.

Event code	Message	Description	Severity	Action
7306	Socket error when receiving data. Please check the connection between the Symposium eMail Manager and the SMTP server.	A response from the mail server suggests there was an error, or the connection to the server failed.	Major	Verify your network settings in the network control panel and make sure the mail server and the Symposium Web Center Portal servers can connect to each other.
7307	Failed to connect socket as there was a socket error. Please check the connection between the Symposium eMail Manager and the mail server.	The Symposium Web Center Portal server failed to connect to the mail servers.	Major	Verify your network settings in the network control panel and make sure the mail server and the Symposium Web Center Portal servers can connect to each other.
7313	Connection to SMTP server failed. Please verify the connection between the Symposium eMail Manager and the SMTP server.	The connection to the SMTP server failed.	Major	Verify your network settings in the network control panel and make sure the mail server and the Symposium Web Center Portal servers can connect to each other.

Event code	Message	Description	Severity	Action
7315	Failed to disconnect from the SMTP server. The connection to the SMTP server may have already been disconnected. Please verify the connection between the Symposium eMail Manager and the SMTP server if this issue persists.	The Symposium Web Center Portal server was already disconnected from the POP3 server. Intermittent connection issue.	Major	For more information, refer to previous error messages in the e-mail POP3SMTP.log file.
7316	Failed to send e-mail message to SMTP server.	A response from the mail server indicates that there was an error, or the connection to the server failed.	Major	Verify that there is a connection to the mail server and that the mail services are running.

Event code	Message	Description	Severity	Action
7317	Failed to get the file status for an attachment. Please check the Attachment settings in the Administrator Interface, and the permissions on the attachment directory. The following attachment may not exist:	The attachment could not be found, or network permissions failed to allow Symposium Web Center Portal to get information from the attachment file.	Major	Verify that the attachment directories exist and that they can be accessed by the Symposium Web Center Portal server.
7318	Failed to open file to be attached. Please check the Attachment settings in the Administrator Interface, and the permissions on the attachment directory. The following attachment may not exist:		Major	Verify the inbound and outbound attachment directories.

Event code	Message	Description	Severity	Action
7320	Timeout when receiving response from server. Please check the e-mail server settings in the Administrator Interface, and that the Symposium eMail Manager can contact the SMTP server.	A timeout occurred while waiting for data from the e-mail server.	Major	Verify that there is a connection to the mail server and that the mail services are running.

IMS event codes

Event code	Message	Description	Severity	Action
11001 to 11028	The following error occurred: 53 File not found IMS.	The directories for attachments and their associated permissions are not set up properly.	Major	Look at the attachments settings in the Customer Interface.
12001	Output Error: Main - Failed to log off database.	The server failed to log off the database server. This may be a network error, or the mail server was already logged off.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.
12002	Output Error: Main - Failed to return license.	The server failed to check in the license from the license server. The license may have already been checked back in after it was improperly checked out, or the connection to the license server was lost.	Major	Make sure the Symposium Web Center Portal server can communicate with the License server.
12003	Output Error: Main - Could not Check out license.	The server failed to check in the license from the license server. The license may have already been checked back in after it was improperly checked out, or the connection to the license server was lost.	Major	Make sure the Symposium Web Center Portal server can communicate with the License server.

Event code	Message	Description	Severity	Action
12004	Output Error: Main - Could not log on database.	The server failed to log on to the database server. The connection to the license server was not established, or was lost.	Critical	Ensure that the database services are running. Use the e-mail analyzer to verify the database and mail server connections.
12005	Output Error: LogonDB Failure.	The server failed to log on to the database server. The connection to the license server was not established, or was lost.	Critical	Ensure that the database services are running. Use the e-mail analyzer to verify the database and mail server connections.
12006	Output Error: Logoff DB Failure.	The server failed to log off the database server due to a network error, or the server was already logged off the database server.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.
12007	Output Error: No Active DB Connection for retrieving sleep interval.	The system was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.

Event code	Message	Description	Severity	Action
12008	Output Error: No Active DB Connection for retrieving Inbound Attachments Directory.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.
12009	Output Error: No Active DB Connection for retrieving Mailbox Credentials.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.

Event code	Message	Description	Severity	Action
12010	Output Error: MainEmailHandler - Failed to Create New Transaction.	This error is caused when there is a problem connecting to the database server, or the system was unable to create a new transaction ID, a new response ID, or find a referenced transaction.	Major	<p>Ensure that the database services are running. Use the e-mail analyzer to verify the database and mail server connections.</p> <p>If this issue is seen for a number of transactions, it may be that the creation of customer records fails to create transactions. This issue does resolve itself over time and relates to a counter issue.</p>
12011	Output Error: MainEmailHandler - Failed to Create New Reply.	This error is caused when there is a problem connecting to the database server, or the system was unable to create a new transaction ID, a new response ID, or find a referenced transaction.	Major	<p>Ensure that the database services are running. Use the e-mail analyzer to verify the database and mail server connections.</p> <p>If this issue is seen for a number of transactions, it may be that the creation of customer records fails to create transactions. This issue does resolve itself over time and relates to a counter issue.</p>

Event code	Message	Description	Severity	Action
12012	Output Error: MainEmailHandler - Failed to Create Undeliverable Reply.	This error is caused when there is a problem connecting to the database server, or the system was unable to create a new transaction ID, a new response ID, or find a referenced transaction.	Major	<p>Ensure that the database services are running. Use the e-mail analyzer to verify the database and mail server connections.</p> <p>If this issue is seen for a number of transactions, it may be that the creation of customer records fails to create transactions. This issue does resolve itself over time and relates to a counter issue.</p>
12015	Output Error: No Active DB Connection for Creating Transaction Record.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	<p>Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.</p>

Event code	Message	Description	Severity	Action
12016	Output Error: No Active DB Connection for retrieving last transaction ID.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.
12017	Output Error: No Active DB Connection for retrieving Customer ID.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.

Event code	Message	Description	Severity	Action
12018	Output Error: Creating Customer Record Failed.	This error is caused when there is a problem connecting to the database server, or the system was unable to create a new transaction ID, a new response ID, or find a referenced transaction.	Major	<p>Ensure that the database services are running. The Analyzer tool can be used to verify the database and mail server connections.</p> <p>If this issue is seen for a number of transactions, there is an issue with the creation of customer records that will fail to create transactions. This issue is being looked at. The issue does resolve itself over time and relates to a counter issue.</p>
12019	Output Error: No Active DB Connection for Creating Customer Record.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	<p>Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.</p>

Event code	Message	Description	Severity	Action
12025	Output Error: No Active DB Connection when checking transaction record exists.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.
12026	Output Error: No Active DB Connection for Creating Reply Record.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.
12027	Output Error: No Active DB Connection for retrieving last Response ID.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.

Event code	Message	Description	Severity	Action
12028	Output Error: No Active DB Connection for checking AutoReply Status.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.
12029	Output Error: No Active DB Connection for Sending AutoReply.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.

Event code	Message	Description	Severity	Action
12013	Output Error: MainEmailHandler - Failed Logging off Mailbox.	The server failed to log off the mail server. The connection to the mail server was not established, or was lost.	Major	Ensure that the database services are running. Also be sure to check the configuration of the mailboxes on the mail server, and the configuration of Symposium Web Center Portal to connect to the mailboxes in the Administrator Interface. Use the e-mail analyzer to verify the database and mail server connections.
12014	Output Error: Output Error: MainEmailHandler - Failed Logging On Mailbox.	The server failed to log off the mail server. The connection to the mail server was not established, or was lost.	Critical	Ensure that the database services are running. Also be sure to check the configuration of the mailboxes on the mail server, and the configuration of Symposium Web Center Portal to connect to the mailboxes in the Administrator Interface. Use the e-mail analyzer to verify the database and mail server connections.

Event code	Message	Description	Severity	Action
12020	Output Error: No TransID available when creating Reply Record.	The transaction ID was not available from the e-mail response for the reply record. A reply to a transaction is recognized by Symposium Web Center Portal as having a subject field with a number between parentheses.	Minor	Let IMS run again.
12021	Output Error: E-mail could not be deleted after creating Reply Record.	An e-mail message on the mail server was not deleted after a reply record was created.	Major	Ensure that the database services are running. You can also check the configuration of the mailboxes on the mail server, and the configuration of Symposium Web Center Portal to connect to the mailboxes in the Administrator Interface. This issue may be an isolated incident. Letting IMS run again may clear this issue.

Event code	Message	Description	Severity	Action
12023	Output Error: CreateReply - Could not delete e-mail after AutoReply.	An e-mail message on the mail server was not deleted after a reply record was created.	Major	Ensure that the database services are running. You can also check the configuration of the mailboxes on the mail server, and the configuration of Symposium Web Center Portal to connect to the mailboxes in the Administrator Interface. This issue may be an isolated incident. Letting IMS run again may clear this issue.
12022	Output Error: CreateReply - CreateReplyRecord Failed.	There was an error when creating the reply record for a transaction.	Major	Refer to the event log.
12024	Output Error: CreateReply - Transaction Not Found. Attempt to Create Transaction.	There was an error when creating the transaction record for a transaction.	Major	Refer to the event log.
12030	Output Error: Failed to create Undeliverable Reply.	There was an error when creating the undeliverable response for a transaction.	Minor	Refer to the event log.

Event code	Message	Description	Severity	Action
13014	Output SQL: Error updating Transaction Status.	An error occurred while updating the transaction details in the database.	Major	Ensure that the database services are running. An ODBC log can be turned on to verify the connection and the commands sent to the SQL server. Use the e-mail analyzer to verify the database and mail server connections.
22033	Output Error: Transaction update failed.	An error occurred while updating the transaction details in the database.	Major	Ensure that the database services are running. Turn on the ODBC log to verify the connection and the commands sent to the SQL server. Use the e-mail analyzer to verify the database and mail server connections.
22034	Output Error: Database insert failed when updating data for attachments.	An error occurred while updating the transaction details in the database.	Minor	Ensure that the database services are running. Turn on the ODBC log to verify the connection and the commands sent to the SQL server. Use the e-mail analyzer to verify the database and mail server connections.

Event code	Message	Description	Severity	Action
22035	Output Error: Customer information update failed.	An error occurred while updating the transaction details in the database.	Major	Ensure that the database services are running. Turn on the ODBC log to verify the connection and the commands sent to the SQL server. Use the e-mail analyzer to verify the database and mail server connections.
22036	Output Error: Transaction update failed. Attempted update 10 times.	An error occurred while updating the transaction details in the database.	Major	Ensure that the database services are running. Turn on the ODBC log to verify the connection and the commands sent to the SQL server. Use the e-mail analyzer to verify the database and mail server connections.

OMS event codes

Event code	Message	Description	Severity	Action
13014	Output SQL: Error updating Transaction Status.	An error occurred while updating a transaction record.	Major	Ensure that the database services are running. Turn on the ODBC log to verify the connection and the commands sent to the SQL server. Use the e-mail analyzer to verify the database and mail server connections.
21001 - 21033	The following error occurred.	A Visual Basic error message containing the error number, and a description of the error.	Major	Reinstall the Symposium eMail Manager, or install the latest PEPs from Nortel Networks.
22001	Output Error: Main - Failed to Log off Database.	The mail server failed to log off the Symposium Web Center Portal server due to a network error, or, the Symposium Web Center Portal server was already logged off.	Minor	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.

Event code	Message	Description	Severity	Action
22002	Output Error: Main - Failed to check in License.	The server failed to check in the license from the license server. The license may have already been checked back in after it was improperly checked out, or the connection to the license server was lost.	Minor	Make sure the Symposium Web Center Portal server can communicate with the License server.
22003	Output Error: Main - Failed to Check Out License.	The server failed to check out a license from the license server. The license was not checked out properly, or the connection to the license server was lost.	Major	Make sure the Symposium Web Center Portal server can communicate with the License server.
22004	Output Error: Main - Failed to Log on Database.	The server failed to log on to the database server. The connection to the license server was not established, or was lost.	Critical	Ensure that the database services are running. Use the e-mail analyzer to verify the database and mail server connections.
22005	Output Error: LogonDB - Could Not Log on database.	The server failed to log on to the database server. The connection to the license server was not established, or was lost.	Critical	Ensure that the database services are running. Use the e-mail analyzer to verify the database and mail server connections.

Event code	Message	Description	Severity	Action
22006	Output Error: LogoffDB - Could Not Log off Database.	The mail server failed to log off the Symposium Web Center Portal server due to a network error, or the Symposium Web Center Portal server was already logged off.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.
22007	Output Error: getOutboundDir - No Active Database Connection.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.
22008	Output Error: getMailboxCredentials - No Active DB Connection.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.

Event code	Message	Description	Severity	Action
22011	Output Error: mainEmailHandler - Failed to Send E-mail.	This system failed to send an e-mail.	Major	<p>Make sure the Symposium Web Center Portal server can communicate with the mail servers. Make sure the appropriate services are running, and that the configurations are set up properly. Make sure to check that the mailboxes are set up properly on the mail server, and that the configuration information to access these mailboxes is correct on the Administrator Interface component. Use the Analyzer tool to verify the database and mail server connections.</p> <p>For more information, refer to the event log.</p>

Event code	Message	Description	Severity	Action
22012	Output Error: mainEmailHandler - Failed to Log off Mailbox.	The server failed to log off the mail server. The connection to the mail server was not established, or was lost.	Major	Make sure the Symposium Web Center Portal server can communicate with the mail server and that the mail services are running. Check the configuration of the mailboxes on the mail server, and the configuration of the connection between the Symposium Web Center Portal and the mailboxes on the Administrator Interface. Use the e-mail analyzer to verify the database and mail server connections.

Event code	Message	Description	Severity	Action
22013	Output Error: mainEmailHandler - Failed to Log on Mailbox.	The server failed to log on to the mail server. The connection to the mail server was not established, or was lost.	Critical	Make sure the Symposium Web Center Portal server can communicate with the mail server, and that the mail services are running. Check the configuration of the mailboxes on the mail server, and the connection of Symposium Web Center Portal to the mailboxes on the Administrator Interface. Use the e-mail analyzer to verify the database and mail server connections.
22014	Output Error: loadEmail - No Active DB Connection.	Symposium Web Center Portal was unable to retrieve information from the database server. The license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the mail server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.

Event code	Message	Description	Severity	Action
22016	Output Error: SendEmail - No Active DB Connection.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the mail server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.
22018	Output Error: sendEmail - Unknown Recipient - No Active DB Connection.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the mail server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.
22019	Output Error: sendEmail - Attachment File Not Found - No Active DB Connection.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.

Event code	Message	Description	Severity	Action
22020	Output Error: deleteResponseRecord - No Active DB Connection.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.
22021	Output Error: applySignature - No Active DB Connection.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.
22029	Output Error: getTransField - No Active DB Connection.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.

Event code	Message	Description	Severity	Action
22030	Output Error: getUserDetails Field - No Active DB Connection.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.
22031	Output Error: getCustomerField - No Active DB Connection.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.
22032	Output Error: addAttachment File - No Active DB Connection.	Symposium Web Center Portal was unable to retrieve information from the database server. The connection to the license server was not established, or was lost.	Major	Ensure that the database services are running. Verify the log files to make sure the server logged on to the database server. Use the e-mail analyzer to verify the database and mail server connections.

Event code	Message	Description	Severity	Action
22033	Output Error: sendMail - SMTP server error.	The server failed to send an e-mail message due to an error on the SMTP server.	Major	Make sure the Symposium Web Center Portal server can communicate with the mail server and that the mail services are running. Also be sure to check the configuration of the mailboxes on the mail server, and the connection of Symposium Web Center Portal to the mailboxes on the Administrator Interface. Informational traces can be enabled to catch SMTP server errors.

DTH event codes

Introduction

This section provides a listing of the event codes for the DTH.

Event codes

Event code	Message	Description	Severity	Action
3501	pDC is NULL in CBigIcon::DrawItem	An internal error occurred in the DTH configuration utility.	Major	Run the DTH configuration utility.
3502	Could not access application's main window pointer. CMinerDlgAutoProxy	An internal error occurred in the DTH configuration utility.	Major	Run the DTH configuration utility.
3503	No mode selected. CGeneralPage::OnApply()	There was an invalid selection made in the DTH configuration utility.	Major	Specify the DTH Mode - drop or keep in DTH configuration utility.
3504	pFont is NULL. CHorzListBox::UpdateHExtent	An internal error occurred in the DTH configuration utility.	Major	Run the DTH configuration utility.
3505	pFont is NULL. CHorzListBox::InsertNewExtent	An internal error occurred in the DTH configuration utility.	Major	Run the DTH configuration utility.
3506	pFont is NULL. CHorzListBox::OnSetTabStops	An internal error occurred in the DTH configuration utility.	Major	Run the DTH configuration utility.

Event code	Message	Description	Severity	Action
3507	Event Log Error	Operating system error.	Major	Check NT Event Log.
3508	Unable to process error message info.	Operating system error.	Major	Check NT Event Log.
3509	Unable to process error message info.	Operating system error.	Major	Check NT Event Log.
3510	pClass is NULL. CLog::LogException (...).	An internal MFC error in the DTH.	Major	Check memory usage.
3511	pClass->m_lpszClassName is NULL. CLog::LogException (...)	An internal MFC error in the DTH.	Major	NULL Pointer. Logical Error.
3512	pClass is NULL. CLog::LogException (CException *e)	An internal MFC error in the DTH.	Major	Check memory usage.
3513	pClass->m_lpszClassName is NULL. CLog::LogException (CException *e).	An internal MFC error in the DTH.	Major	Check memory usage.
3514	FindString returned CB_ERR. CLoggingPage::OnInitDialog()	An internal error occurred in the DTH configuration utility.	Minor	Run the DTH configuration utility.
3515	Failed to create TapiSession object. CMinerDlg::OnInitDialog()	An internal error occurred in the DTH while initializing TAPI.	Critical	Check TAPI setup on Symposium Web Center Portal server and memory usage.

Event code	Message	Description	Severity	Action
3516	Failed to create for Lines in use. CMinerDlg::OnInitDialog()	An internal error occurred in the DTH caused a failure to create TAPI lines.	Critical	Check TAPI setup on Symposium Web Center Portal server and memory usage.
3517	Failed to allocate mem or clEventQueue. CMinerDlg::OnInitDialog()	Memory allocation error in the DTH.	Critical	Check memory usage.
3518	CreateEvent failed. CMinerDlg::OnInitDialog()	The system failed to create an event in the DTH. Operating system error.	Major	Check memory and handle usage.
3523	TAPI Layer Initialization failed. CMinerDlg::OnMinerStart()	The system failed to initialize TAPI layer in DTH.	Critical	Check the TAPI Server, and then restart Telephony Service and the DTH.
3524	Memory allocation failed for CMinerThread. CMinerDlg::OnMinerStart()	Memory allocation error in the DTH.	Critical	Check memory usage and restart the DTH.
3526	GetLength() failed. CMinerDlg::InitConfigurationParams()	The system failed to initiate the configuration parameters.	Minor	Check the operation mode for the DTH in the registry, and then restart the DTH.
3527	m_pInitOle is NULL in CMinerThread::InitInstance().	The system cannot initialize OLE.	Critical	Restart the DTH.

Event code	Message	Description	Severity	Action
3528	The list is NULL in CMinerThread::doCleanUp().	An internal error occurred in the DTH.	Major	Restart the DTH.
3529	pLine is not valid in CMinerThread::doCleanUp().	Invalid TAPI Line pointer.	Major	If there are no other lines, restart the DTH.
3530	Call Timed Out. HangUpCall failed in CMinerThread::doCleanUp().	The TAPI Line cannot be reused.	Major	If there are no other lines, restart DTH.
3532	m_pSession is NULL	TAPI session problem.	Critical	Stop the DTH. Verify that the TAPI server is working properly. Restart the DTH.
3533	m_theLineObjects is NULL. CMinerThread::Run()	The system cannot open a line.	Critical	Restart the DTH and check TAPI.
3534	pLine is NULL at CreateEvent. CMinerThread::Run()	An internal error occurred in the DTH – invalid pointer to a line.	Critical	Check TAPI functionality.
3535	dwGetDeviceID is not equal to iLine at CreateEvent. CMinerThread::Run()	TAPI error. An internal error in the DTH.	Major	Check TAPI Configuration.
3536	pLine is NULL	An internal error in the DTH. Invalid pointer to a TAPI line.	Major	If there are no other lines available, restart the DTH and check TAPI.

Event code	Message	Description	Severity	Action
3540	MakeCall failed. CMinerThread::Run()	The call made by the DTH failed.	Minor	Check TAPI lines used by the DTH to make calls.
3548	ADO Error	Database layer error in the DTH.	Major	Check the Symposium Web Center Portal database for errors or deadlocks.
3549	*** UNABLE TO LOG ADO ERROR *** (MFC Exception was raised while logging exception)	Database layer error in the DTH.	Major	Check the Symposium Web Center Portal database for errors or deadlocks.
3550	*** UNABLE TO LOG ERROR *** (Win32 Exception was raised while logging exception)	Problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.
3551	*** UNABLE TO LOG ERROR *** (Unknown Exception was raised while logging exception)	Problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.
3552	*** ERROR CONDITION! ***	Problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.

Event code	Message	Description	Severity	Action
3553	*** UNABLE TO LOG ERROR *** (Win32 Exception was raised while logging exception)	Problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.
3554	*** UNABLE TO LOG ERROR *** (UnknownException was raised while logging exception)	Problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.
3555	*** ERROR CONDITION! ***	Problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.
3556	*** Unhandled Exception in Exception Handler ***	Problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.
3557	*** ERROR CONDITION! ***	Problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.

Event code	Message	Description	Severity	Action
3558	*** Unhandled Exception in Exception Handler ***	Problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.
3559	*** ERROR CONDITION! ***	Problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.
3560	*** UNABLE TO LOG ERROR *** (Win32 Exception was raised while logging exception)	Problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.
3561	*** UNABLE TO LOG ERROR *** (Unknown Exception was raised while logging exception)	Problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.
3564	lineDeallocate failed in HandleLineCallState - LINECALLSTATE_IDLE.	The system failed to deallocate call in the DTH.	Major	No deallocated call.

Event code	Message	Description	Severity	Action
3565	lineGetCallInfo was not successful in HandleLineCallState - LINECALLSTATE_OFFERING.	The system failed to get call information for a TAPI line.	Major	Check the TAPI lines used by the DTH to make calls, and the TAPI server.
3566	Memory allocation failed in HandleLineCallState - LINECALLSTATE_OFFERING	An internal error occurred in the DTH; memory allocation failed.	Major	Check the Memory usage on the Symposium Web Center Portal server.
3567	HangUpCall failed in HandleLineCallState - LINECALLSTATE_BUSY	The system failed to hangup a call in the DTH.	Major	Check the TAPI lines used by the DTH to make calls, and the TAPI server.
3568	HangUpCall failed in HandleLineCallState - LINECALLSTATE_SPECIALINFO.	The system failed to hang up a call in the DTH.	Major	Check the TAPI lines used by the DTH to make calls, and the TAPI server.
3571	CTapiLine::LineReply -\tdwDevice[%d] dwMessage[%d] dwCallbackInstance[%d] dwParam1[%d] dwParam2[%d] dwParam3[%d] MakeCall request failed in CTapiLine::bLineReply()	The system failed to make a call in the DTH.	Major	Check the TAPI lines used by the DTH to make calls, and the TAPI server.

Event code	Message	Description	Severity	Action
3572	HangUpCall failed in CTapiLine::bLineReply. Set Call Data Request	The system failed to hang up a call in the DTH.	Major	Check the TAPI lines used by the DTH to make calls, and the TAPI server.
3575	Memory allocation failed in CTapiLine::GetLineDevCaps().	An internal error occurred in the DTH; memory allocation failed.	Major	Check the memory usage on the Symposium Web Center Portal server. You may need to restart DTH.
3576	lineGetDevCaps unhandled error	The system cannot get the TAPI line parameters.	Major	Check the TAPI lines used by the DTH to make calls, and the TAPI server.
3578	Memory allocation failed in CTapiLine::GetLineAddressCaps.	An internal error occurred in the DTH. The memory allocation failed.	Major	Check the Memory usage on the Symposium Web Center Portal server. You may need to restart the DTH.
3579	lineGetAddressCaps unhandled error	The system cannot get the TAPI line compatibility parameters.	Major	Check the TAPI lines used by the DTH to make calls, and the TAPI server.
3583	Memory allocation failed in CTapiLine::IsConnected()	An internal error occurred in the DTH. The memory allocation failed.	Major	Check the Memory usage on the Symposium Web Center Portal server. You may need to restart the DTH.

Event code	Message	Description	Severity	Action
3584	Memory allocation failed in CTapiLine::IsIdle().	An internal error occurred in the DTH. The memory allocation failed.	Major	Check the Memory usage on the Symposium Web Center Portal server. You may need to restart the DTH.
3586	Memory allocation failed in CTapiLine::HangupCall().	An internal error occurred in the DTH. The memory allocation failed.	Major	Check the Memory usage on the Symposium Web Center Portal server. You may need to restart the DTH.
3587	lineGetCallStatus failed in HangUpCall	The system cannot get the status of the call.	Major	Check the TAPI lines used by the DTH to make calls, and the TAPI server.
3592	No type checked. CTAPIPage::OnApply()	The type of TAPI Service Provider was not selected when you configured the DTH.	Major	Ensure you select the type of TAPI Service Provider (usually Nortel) in the DTH Configuration.
3593	Agent Configuration not checked. CTAPIPage::OnApply()	A mode, Drop or Keep, was not selected during the configuration.	Major	Ensure you select the type of Agent mode, Drop or Keep, in the DTH Configuration.
3594	lineInitializeEx failed in CTapiSession::bInitialize.	The system cannot initialize a TAPI line.	Major	Check the TAPI lines used by the DTH to make calls, and the TAPI server.

Event code	Message	Description	Severity	Action
3596	There are no telephony devices installed.	The DTH cannot find available TAPI lines.	Major	Check if there are TAPI lines assigned to the DTH, and then check the TAPI Server. When the TAPI lines are available, restart the DTH server.
3597	Could not create line objects. CTapiSession::bInitialize	Cannot create line objects due to an internal error in the DTH.	Major	Check the TAPI lines used by the DTH and the memory usage on the Symposium Web Center Portal server.
3598	Line is already in use by a non-TAPI application or by another TAPI Service Provider.	Someone is already using the DTH TAPI line.	Major	Make sure the TAPI lines used by the DTH are not opened by other TAPI applications, and then restart the DTH.
3599	pLine is NULL. CTapiSession::bInitialize	An internal error in the DTH. (Null pointer to a TAPI line.)	Major	Verify that the correct TAPI lines are used by the DTH.
3600	Could not create thread in CTapiSession::bInitialize	An internal error failed to create a thread in the DTH.	Critical	Check the memory usage on the Symposium Web Center Portal server, and then restart the DTH.

Event code	Message	Description	Severity	Action
3601	TAPI server is in REINIT state, RECOVERING in CTapiSession::Run	The TAPI server was restarted.	Major	Restart Windows NT Telephony Service, and then restart the DTH.
3602	Line did not recover after REINIT in CTapiSession::Run	The system failed to reinitialize a line after the TAPI server was restarted.	Major	Restart Windows NT Telephony Service, and then restart the DTH.
3603	Line recovered SUCCESSFULLY after REINIT in CTapiSession::Run	The TAPI server was restarted and the line was recovered.	Minor	None
3604	Line is NULL in LINE_REPLY. CTapiSession::Run	An internal error in the DTH. (Null line.)	Major	Verify that the correct TAPI lines are used by the DTH and the TAPI server.
3605	Line is NULL in LINE_REPLY(bHandled is FALSE). CTapiSession::Run	An internal error in the DTH. (Null line.)	Major	Verify that the correct TAPI lines are used by the DTH and the TAPI server.
3606	LINE_REPLY: bHandled is FALSE. CTapiSession::Run	An unhandled error occurred when a line replied to a call.	Major	Verify that the correct TAPI lines are used by the DTH and the TAPI server.
3607	bHandled is FALSE. CTapiSession::Run	An unhandled error occurred when a line replied to a call.	Major	Verify that the correct TAPI lines are used by the DTH and the TAPI server.

Event code	Message	Description	Severity	Action
3609	CTapiSession::Run()	An internal error in the DTH resulted in an abnormal termination.	Critical	Verify that the correct TAPI lines are used by the DTH and the TAPI server, and then restart the DTH.
3611	DumpResult() - LINEERR_...	An error occurred on the TAPI line.	Minor	Verify that the correct TAPI lines are used by the DTH and the TAPI server.
3614	lineInitializeEx failed in CTapiSession::ReInit	The system failed to initiate a TAPI line.	Major	Verify that the correct TAPI lines are used by the DTH and the TAPI server, and then restart the DTH.
3616	There are no telephony devices installed. CTapiSession::ReInit	The DTH cannot find installed TAPI lines.	Major	Verify that the correct TAPI lines are used by the DTH and the TAPI server. If you can open and initialize the TAPI lines used by the DTH in the TAPI Browser, restart Windows NT Telephony Service and the DTH.

Event code	Message	Description	Severity	Action
3617	Line is already in use by a non-TAPI application or by another TAPIService Provider.	Someone else is using the DTH line.	Major	Make sure the TAPI lines used by the DTH are not opened by other TAPI applications, and then restart DTH.
3618	pLine is NULL. CTapiSession::ReInit	An internal error in the DTH. (Null pointer for a TAPI line.)	Major	Check the TAPI lines used by the DTH.
3620	The file could not be opened because of this:	The TAPI line ID.txt file with the list of the DTH lines is missing.	Minor	Check the TapiLineId.txt file and make sure the appropriate TAPI Lines used with the DTH are listed. Restart the DTH. Note: The TapiLineId.txt must be in the same directory as the DTH.
3621	Could not load skillsets. CTransactions::bLoad()	Cannot load the skillsets due to an internal error in the DTH.	Major	Make sure you have a skillset with the appropriate ACD DN in the Symposium Web Center Portal Database for use with the DTH.

Event code	Message	Description	Severity	Action
3622	Could not look up skillset. CTransactions::bLoad()	Cannot find a skillset in the list of skillsets due to an internal error in the DTH.	Major	Make sure you have a skillset with the appropriate ACD DN in the Symposium Web Center Portal Database for use with the DTH.
3623	pTransaction is NULL. CTransactions::bLoad()	Internal error in the DTH. (Null pointer to a transaction.)	Major	Check the memory usage on the system.
3624	Could not unload and destroy skillsets. CTransactions::bUnload()	An internal error in the DTH occurred while unloading the skillsets.	Major	Check the memory usage on the system.
3635	Called SetNotification before creating window. CTrayIcon::SetNotificationWnd	An internal error in the DTH related to the notification for the tray icon.	Major	Check if the DTH is running on the system.
3636	uCbMsg<WM_USER. CTrayIcon::SetNotificationWnd	An internal error in the DTH with the DTH tray icon.	Major	Check if the DTH is running on the system.

Event code	Message	Description	Severity	Action
3637	*** ADO ERROR CONDITION ***...	Database access error in the DTH.	Major	Check if the Symposium Web Center Portal Database is up and the appropriate version of ADO is installed on the Symposium Web Center Portal server.
3638	*** UNABLE TO LOG ADO ERROR *** (MFC Exception was raised while logging exception)	A problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.
3639	*** UNABLE TO LOG ADO ERROR *** (Win32 Exception was raised while logging exception)	A problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.
3640	*** UNABLE TO LOG ADO ERROR *** (Unknown Exception was raised while logging exception)	A problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.

Event code	Message	Description	Severity	Action
3641	*** ERROR CONDITION! ***	A problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.
3642	*** UNABLE TO LOG ERROR *** (Win32 Exception was raised while logging exception)	A problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.
3643	*** UNABLE TO LOG ERROR *** (Unknown Exception was raised while logging exception)	A problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.
3644	*** ERROR CONDITION! ***	A problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.
3645	*** UNABLE TO LOG ERROR *** (Unknown Exception was raised while logging exception)	A problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.

Event code	Message	Description	Severity	Action
3646	*** ERROR CONDITION! ***	A problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.
3647	*** Unhandled Exception in Exception Handler ***	A problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.
3648	*** ERROR CONDITION! ***	A problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.
3649	*** UNABLE TO LOG ERROR *** (Win32 Exception was raised while logging exception)	A problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.
3650	*** UNABLE TO LOG ERROR *** (Unknown Exception was raised while logging exception)	A problem with the Windows event logging mechanism.	Major	Check the operating system and ensure that there is enough memory. Ensure the EventLog service is running.

Event code	Message	Description	Severity	Action
3654	Cannot Open the Database in PresentedTransList	The system failed to open the database in the DTH.	Major	Check if Symposium Web Center Portal Database is up.
3655	Database Update failed in PresentedTransList	The system failed to update the database in the DTH.	Major	Check if the Symposium Web Center Portal Database is up, the Sybase error log for deadlocks, and the Application Event Log on the Symposium Web Center Portal server.
3656	Cannot Open the Database in AcqTransList	The system failed to open the database in the DTH.	Major	Check if Symposium Web Center Portal Database is up.
3657	Database Update failed in AcqTransList	The system failed to update the database in the DTH.	Major	Check if the Symposium Web Center Portal Database is up, the Sybase error log for deadlocks, and the Application Event Log on the Symposium Web Center Portal server.

Transaction Monitor event codes

Introduction

This section provides a listing of the event codes for the TxnMonitor.

Event codes

Event Code	Message	Description	Severity	Action
3900	CreateEvent in CService::PreInit failed	The TxnMonitor failed to create an event.	Major	Check the number of handles for the TxnMonitor Service and restart the TxnMonitor.
3901	RegisterService CtrlHandler failed	The system failed to register the TxnMonitor service with the system control manager.	Major	Restart the TxnMonitor service.
3902	Cannot create Launch Thread _beginthreadex. Please restart TxnMonitor.	An internal error. The system failed to create a thread in the TxnMonitor.	Major	Restart the TxnMonitor service.
3903	CService::SetStatus: Pending statuses require a hint and checkpoint.	The system failed to set the service status of the TxnMonitor.	Major	Check the Service Control Manager, and then restart the TxnMonitor.
3904	SetServiceStatus failed in CService::SetStatus	The system failed to set the service status of the TxnMonitor.	Major	Check the Service Control Manager, and then restart the TxnMonitor.

Event Code	Message	Description	Severity	Action
3905	CreateEvent failed in TxnMonitor::Init . Please restart Transaction Monitor.	An internal error. The system failed to create an event in the TxnMonitor.	Major	Restart the TxnMonitor.
3907	Acquired transactions converted to user configured status=%d	Transactions were acquired by the DTH for more than the appropriate time. These transactions were converted to a user-configured status.	Minor	None
3908	Open transactions converted to pending status=%d	Transactions were opened by an agent for more than the appropriate amount of time and were converted to pending status.	Minor	None
3909	Presented transactions converted to user-configured status=%d	Transactions for which a call was made by the DTH, which were not opened by an agent for more than the appropriate amount of time, were converted to a user-configured status.	Minor	None

Event Code	Message	Description	Severity	Action
3911	InitServiceCfg: Using default DSN=SWRS2D B	The system cannot find the database name in the list of configuration parameters; therefore, the default database name was used.	Minor	Make sure you have a clean installation of the TxnMonitor.
3912	InitServiceCfg: Using default UID=admin	The system cannot find the database name in the list of configuration parameters; therefore, the default database name was used.	Minor	Make sure you have a clean installation of the TxnMonitor.
3913	InitServiceCfg: Using default PWD	The system cannot find the database password in the list of configuration parameters for the TxnMonitor. The TxnMonitor is using the default database password. (By default, there is no database password as a configuration parameter, and you will see this message every time you restart the TxnMonitor.)	Minor	None

Event Code	Message	Description	Severity	Action
3914	InitServiceCfg: Using default PollingIntervalTime=5	The system cannot get the polling interval time parameter from the list of configuration parameters for the TxnMonitor. The TxnMonitor is using the default value.	Minor	Make sure you have the PollingIntervalTime field in Registry under HKLM\Software\Nortel Networks\TxnMonitor\1.0. Make sure the Windows Registry is not corrupted, and then restart the TxnMonitor.
3915	InitServiceCfg: Using default AcquiredDurationTime=60	The system cannot get the acquired duration time parameter from the list of configuration parameters for the TxnMonitor. The TxnMonitor is using the default value.	Minor	Make sure you have the AcquiredDurationTime field in Registry under HKLM\Software\Nortel Networks\TxnMonitor\1.0. Make sure the Windows Registry is not corrupted, and then restart the TxnMonitor.
3916	InitServiceCfg: Using default PresentedDurationTime=20	The system cannot get the presented duration time from the list of configuration parameters for the TxnMonitor. The TxnMonitor is using the default value.	Minor	Make sure you have the PresentedDurationTime field in Registry under HKLM\Software\Nortel Networks\TxnMonitor\1.0. Make sure the Windows Registry is not corrupted, and then restart the TxnMonitor.

Event Code	Message	Description	Severity	Action
3917	InitServiceCfg: Using default AcquiredQueryS tatusCode=5	The system cannot get the acquired query status code from the list of configuration parameters for the TxnMonitor. The TxnMonitor is using the default value.	Minor	Make sure you have the AcquiredQueryStatusC ode field in Registry under HKLM\Software\Nortel Networks\TxnMonitor\ 1.0. Make sure the Windows Registry is not corrupted, and then restart the TxnMonitor.
3918	InitServiceCfg: Using default PresentedQueryS tatusCd=15	The system cannot get the presented query status code from the list of configuration parameters for the TxnMonitor. The TxnMonitor is using the default value.	Minor	Make sure you have the PresentedQueryStatusC ode field in Registry under HKLM\Software\Nortel Networks\TxnMonitor\ 1.0. Make sure the Windows Registry is not corrupted, and then restart the TxnMonitor.
3919	InitServiceCfg: Using default AcquiredDateFie ldname=acquired _dt	The system cannot get the acquired date field name from the list of configuration parameters for the TxnMonitor. The TxnMonitor is using the default value.	Minor	Make sure you have the AcquiredDateFieldnam e field in Registry under HKLM\Software\Nortel Networks\TxnMonitor\ 1.0. Make sure the Windows Registry is not corrupted, and then restart the TxnMonitor.

Event Code	Message	Description	Severity	Action
3920	InitServiceCfg: Using default OpenDurationTime=60	The system cannot get the open duration time from the list of configuration parameters for the TxnMonitor. The TxnMonitor is using the default value.	Minor	Make sure you have the OpenDurationTime field in Registry under HKLM\Software\Nortel Networks\TxnMonitor\1.0. Make sure the Windows Registry is not corrupted, and then restart the TxnMonitor.
3921	InitServiceCfg: Using default OpenQueryStatusCode=1	The system cannot get the open query status code from the list of configuration parameters for the TxnMonitor. The TxnMonitor is using the default value.	Minor	Make sure you have the OpenQueryStatusCode field in Registry under HKLM\Software\Nortel Networks\TxnMonitor\1.0. Make sure the Windows Registry is not corrupted, and then restart the TxnMonitor.
3922	InitServiceCfg: Using default OpenDateFieldName=trans_open_time	The system cannot get the open date field name from the list of configuration parameters for the TxnMonitor. The TxnMonitor is using the default value.	Minor	Make sure you have the OpenDateFieldName field in Registry under HKLM\Software\Nortel Networks\TxnMonitor\1.0. Make sure the Windows Registry is not corrupted, and then restart the TxnMonitor.

Event Code	Message	Description	Severity	Action
3923	InitServiceCfg: Using default SQLStatement	The system cannot get the SQL statement from the list of configuration parameters for the TxnMonitor. The TxnMonitor is using the default value.	Minor	Make sure you have the TxnQuerySQLStatement field in Registry under HKLM\Software\Nortel Networks\TxnMonitor\1.0. Make sure the Windows Registry is not corrupted, and then restart the TxnMonitor.
3924	InitServiceCfg: Using default SQLStatement	The system cannot get the SQL statement from the list of configuration parameters for the TxnMonitor. The TxnMonitor is using the default value.	Minor	Make sure you have the TxnUpdateSQLStatement field in Registry under HKLM\Software\Nortel Networks\TxnMonitor\1.0. Make sure the Windows Registry is not corrupted, and then restart the TxnMonitor.
3925	CRITICAL ERROR: - SWCP database cannot be opened. Please check the database and restart Transaction Monitor.	The system cannot open the database in the TxnMonitor.	Critical	Check the Symposium Web Center Portal Database, and then restart the TxnMonitor.
3926	WARNING: Problem in CloseRecordset	The system failed to close a record set in the database.	Minor	Check the Symposium Web Center Portal Database.

Event Code	Message	Description	Severity	Action
3927	WARNING: Problem in CloseDatabase	The system failed to close the database connection.	Minor	Check the Symposium Web Center Portal Database.
3928	WARNING:Upd ateTransactions - transaction update needs to be reviewed.	The system failed to update the database.	Minor	Check the Symposium Web Center Portal Database.
3929	WARNING:Upd ateTransactions - transaction update needs to be reviewed.	The system failed to update the database.	Minor	Check the Symposium Web Center Portal Database.
3930	InitServiceCfg: Using default m_nnumber_of_t xn_trans=1000	The system cannot find the limit of transactions per database query for the TxnMonitor in the list of configuration parameters. The TxnMonitor is using the default value.	Minor	Make sure you have the NumTxnTrans field in Registry under HKLM\Software\Nortel Networks\TxnMonitor\1.0. Make sure the Windows Registry is not corrupted, and then restart the TxnMonitor.

Database event codes

Introduction

This section provides a listing of the event codes for the database.

Event codes

Event code	Message	Description	Severity	Action
1105	Cannot allocate space for object '%.*s' in database '%.*s' because '%.*s' segment is full/has no free extents. If you ran out of space in syslogs, dump the transaction log. Otherwise, use ALTER DATABASE or sp_extendsegment to increase size of the segment.	No data can be saved. All update/insert transactions requiring space in the segment are suspended or aborted until the appropriate action is taken to clear the segment data.	Critical	Run the purge utility. If it still fails, contact Nortel Networks customer support for help.

Event code	Message	Description	Severity	Action
7412	Space available in the log segment has fallen critically low in database '%.*s'. All future modifications to this database will be %S_MSG until the log is successfully dumped and space becomes available.	All transactions requiring access to the transaction log are suspended or aborted until the appropriate action is taken to clear the transaction log.	Critical	If the transaction was put to sleep and the threshold procedure frees log space, the sleeping processes will awaken and continue. If the process was aborted, you must restart it. If the process is not able to continue, look at the error log and manually dump the transaction log to create free space in the transaction log.

Event code	Message	Description	Severity	Action
7415	The transaction log in database %.*s is almost full. Your transaction is being%S_MSG until space is made available in the log.	Each transaction accessing the transaction log receives this message, indicating whether the transaction will be put to sleep or aborted until log space is available.	Critical	If the transaction was put to sleep and the threshold procedure frees log space, the sleeping processes will awaken and continue. If the process was aborted, you must restart it. If the process is not able to continue, look at the error log and manually dump the transaction log to create free space in the transaction log.

Appendix H

Telephony calculations

In this appendix

Using Erlang B

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Using Erlang B

Introduction

If you have the traffic in CCS, and the Grade of Service (GOS), you can calculate the number of required lines using the Erlang B formula. The GOS is the probability of finding all lines busy. The standard practice is to take the probability of finding all lines busy as 0.001.

When you have non-blocking cases, the GOS is 0; therefore, there are always lines available. To calculate this with Erlang B, use 0.000000001 instead of 0.

Use the following formula to calculate the number of lines you require:

$$\text{Prob} = \frac{\frac{\text{erlangs}^M}{M!}}{\sum_{j=0}^M \frac{\text{erlangs}^j}{j!}}$$

- erlangs is the # CCS / 36 (1 erlang = 3600 call-seconds or 36 CCS). For more information about # CCS, see page 54.
- M is the number of lines.
- Prob is the probability of a lost call.

To use this formula, iterate on M = 1, 2, and so on, until Prob is less than or equal to the GOS. The first M found where Prob is less than or equal to the GOS is the number of required lines.

Note: Alternatively, you can also use a table of Erlang B. (A table of Erlang B is found in most traffic engineering texts.)

Glossary

A

accelerator key

A key on a phoneset that an agent can use to place a call quickly. When an agent presses an accelerator key, the system places the call to the configured number associated with the key. For example, if an agent presses the Emergency key, the system places a call to the agent's supervisor.

access class

A collection of access levels that defines the actions a member of the access class can perform within the system. For example, a member of the Administrator access class might be given a collection of Read/Write access levels.

access level

A level of access or permission given to a particular user for a particular application or function. For example, a user might be given View Only access to historical reports.

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 Symposium Call Center Server. Resources must be configured with matching values on both the switch and Symposium Call Center Server.

activated script

A script that is processing calls or is ready to process calls. Before you can activate a script, you must first validate it.

activity code

A number that an agent enters on his or her phoneset during a call. Activity codes provide a way of tracking the time agents spend on various types of incoming calls. They are also known as Line of Business (LOB) codes. For example, the activity code 720 might be used to track sales calls. Agents can then enter 720 on their phonesets during sales calls, and this information can be generated in an Activity Code report.

administrator

A user who is responsible for setting up and maintaining the Symposium Web Center Portal.

agent

A user who is responsible for handling customer calls.

agent logon ID

A unique identification number assigned to a particular agent. The agent uses this number when logging on. The agent ID is not associated with any particular phoneset.

agent to skillset assignment

A matrix that, when you run it, sets the priority of one or more agents for a skillset. Agent to skillset assignments can be scheduled.

agent to supervisor assignment

A definition that, when you run it, assigns one or more agents to specific supervisors. Agent to supervisor assignments can be scheduled.

API

See application program interface

application

1. A logical entity that represents a Symposium Web Center Portal script for reporting purposes. The Master script and each primary script have an associated application. The application has the same name as the script it represents. 2. A program that runs on a computer.

application program interface

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

associated supervisor

A supervisor who is available for an agent if the agent's reporting supervisor is unavailable. *See also* reporting supervisor.

Automatic call distribution

A means of automatically distributing an organization's incoming calls among a number of answering positions (ACD agents). Automatic call distribution is useful in operations where callers want a service rather than a specific person. Calls are serviced in the order they arrive and are distributed so that the workload at each answering position is approximately equal.

Automatic call distribution call

A call to an ACD-DN. ACD calls are distributed to agents in an ACD group based on the ACD routing table on the switch. *See also* Automatic call distribution directory number.

Automatic call distribution directory number

A DN associated with an ACD group. Calls made to an automatic call distribution directory number are distributed to agents belonging to the group, based on the ACD routing table on the switch.

Automatic call distribution routing table

A table configured on the switch that contains a list of ACD-DNs used to define routes for incoming calls. This ensures that incoming calls not processed by Symposium Call Center Server will be queued to ACD groups and handled by available agents.

C**call age**

The amount of time a call was waiting in the system before being answered by an agent.

call intrinsic

A script element that stores call-related information assigned when a call enters Symposium Call Center Server. *See also* intrinsic, skillset intrinsic, time intrinsic, and traffic intrinsic.

call presentation class

A collection of preferences that determines how calls are presented to an agent.

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 treatment

A script element that enables you to provide handling to a call while it is waiting to be answered by a call center agent. For example, a caller can hear a recorded announcement or music while waiting for an agent.

call variable

A script variable that applies to a specific call. A call variable follows the call through the system and is passed from one script to another with the call. *See also* global variable, script variable.

Calling Line Identification

An optional service that identifies the telephone number of the caller. This information can then be used to route the call to the appropriate agent or skillset. The CLID can also be displayed on an agent's phoneset.

CallPilot

A multimedia messaging system you can use to manage many types of information, including voice messages, fax messages, e-mail messages, telephone calls (including conferencing), calendars, and directories.

CDN

See controlled directory number.

CLAN

See Customer local area network.

CLID

See Calling Line Identification.

client

The part of Symposium Call Center Server that runs on a personal computer or workstation and relies on the server to perform some operations. *See also* server.

command

A building block used with expressions, variables, and intrinsics to create scripts. Commands perform distinct functions, such as routing a call to a specific destination, playing music to a caller, or disconnecting a caller.

controlled directory number

A special directory number that allows calls arriving at the switch to be queued when the CDN is controlled by an application such as Symposium Call Center Server. When a call arrives at this number, the switch notifies the application and waits for routing instructions, which are performed by scripts in Symposium Call Center Server.

Customer local area network

The LAN to which your corporate services and resources connect. The Symposium Web Center Portal and client both connect to the CLAN. Third-party applications that interface with the server also connect to this LAN.

D**DBMS**

Database Management System

deactivated script

A script that does not process any new calls. If a script is in use when it is deactivated, calls continue to be processed by the script until they are completed.

default activity code

The activity code that is assigned to a call if an agent does not enter an activity code manually, or when an agent presses the activity code button twice on his or her phoneset.

default skillset

The skillset to which calls are queued if they have not been queued to a skillset or a specific agent by the end of a script.

desktop user

A configured user who can log on to Symposium Web Center Portal 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 Call Center Server to identify the phone number dialed by the incoming caller. An agent can receive calls from customers calling in on different DNISs and, if the DNIS is displayed on the phoneset, can prepare a response according to the DNIS.

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.

dynamic host configuration protocol

A protocol for dynamically assigning IP addresses to devices on a network.

dynamic link library

A library of executable functions or data that can be used by a Windows application. Typically, a DLL provides one or more particular functions and a program accesses the functions by creating either a static or dynamic link to the DLL. Several applications can use a DLL at the same time.

E**ELAN**

See embedded local area network.

embedded local area network

A dedicated Ethernet TCP/IP LAN that connects the server in Symposium Call Center Server and the switch.

Emergency key

A key on an agent's phoneset that, when pressed by an agent, automatically calls his or her supervisor to notify the supervisor of a problem with a caller.

event

1. An occurrence or action on Symposium Web Center Portal, such as the sending or receiving of a message, the opening or closing of an application, or the reporting of an error. Some events are for information only, while others can indicate a problem. Events are categorized by severity: information, minor, major, and critical. 2. An action generated by a script command, such as queuing a call to a skillset or playing music.

expression

A building block used in scripts to test for conditions, perform calculations, or compare values within scripts. *See also* logical expression, mathematical expression, and relational expression.

F**first-level threshold**

The value that represents the lowest value of the normal range for a statistic in a threshold class. The system tracks how often the value for the statistic falls below this value.

G**global settings**

Settings that apply to all skillsets or IVR ACD-DNs that are configured on your system.

global variable

A variable that contains values that can be used by any script on the system. You can only change the value of a global variable in the Script Variable Properties sheet. You cannot change it in a script. *See also* call variable, variable.

I**Incalls key**

The key on an agent phoneset to which incoming ACD and Symposium Web Center Portal calls are presented.

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

intrinsic

A word or phrase used in a script to gain access to system information about skillsets, agents, time, and call traffic that can then be used in formulas and decision-making statements. *See also* call intrinsic, skillset intrinsic, time intrinsic, and traffic intrinsic.

IP address

See Internet Protocol address.

IVR

See Interactive voice response.

IVR ACD-DN

See Interactive voice response ACD-DN.

IVR event

See Interactive voice response event.

IVR port

See voice port.

L**LAN**

See Local area network.

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.

logical expression

A symbol used in scripts to test for different conditions. Logical expressions are AND, OR, and NOT. *See also* expression, mathematical expression, and relational expression.

M**Management Information Base**

A data structure that describes the collection of all possible objects in a network. Each managed node maintains one or more variables (objects) that describe its state. Symposium Call Center Server Management Information Bases (MIBs) contribute to the overall network MIB by

- identifying Nortel Networks/Meridian/Symposium Call Center Server nodes within the network
- identifying significant events (SNMP traps), such as alarms reporting
- specifying formats of alarms

Master script

The first script executed when a call arrives at Symposium Web Center Portal. A default Master script is provided with Symposium Web Center Portal, but it can be customized by an authorized user. It can be deactivated but not deleted. *See also* primary script, script, secondary script.

mathematical expression

An expression used in scripts to add, subtract, multiply, and divide values. Mathematical expressions are addition (+), subtraction (-), division (/), and multiplication (*). *See also* expression, logical expression, and relational expression.

MIB

See Management Information Base.

music route

A resource installed on the switch that provides music to callers while they wait for an agent.

N

night mode

A skillset state in which the server does not queue incoming calls to the skillset, and in which all queued calls are given night treatment. A skillset goes into night mode automatically when the last agent logs off, or the administrator can put it into night mode manually. *See also* out-of-service mode, transition mode.

NPA

See Number Plan Area.

Number Plan Area

Area code

O

object linking and embedding

A compound document standard that enables you to create objects with one application and then link or embed them in a second application.

ODBC

See Open Database Connectivity.

OEM

Original equipment manufacturer

OLE

See object linking and embedding.

Open Database Connectivity

A Microsoft-defined database application program interface (API) standard.

out-of-service mode

A skillset state in which the skillset does not take calls. A skillset is out of service if there are no agents logged on or if the supervisor puts the skillset into out-of-service mode manually. *See also* night mode, transition mode.

out-of-service skillset

A skillset that is not taking any new calls. While a skillset is out of service, incoming calls cannot be queued to the skillset. *See also* skillset.

P

pegging

The action of incrementing statistical counters to track and report on system events.

pegging threshold

A threshold used to define a cut-off value for statistics, such as short call and service level. Pegging thresholds are used in reports.

PEP

See Performance Enhancement Package.

Performance Enhancement Package

A Symposium Call Center Server supplementary software application that enhances the functionality of previously released software by improving performance, adding functionality, or correcting a problem discovered since the original release.

phoneset

The physical device, connected to the switch, to which calls are presented. Each agent and supervisor must have a phoneset.

phoneset display

The display area on an agent's phoneset where information about incoming calls can be communicated.

Position ID

A unique identifier for a phoneset, used by the switch to route calls to the phoneset.

primary script

A script that is executed or referenced by the Master script. A primary script can route calls to skillsets, or it can transfer routing control to a secondary script. *See also* Master script, script, secondary script.

R

RAN

recorded announcement

RAN route

See recorded announcement route.

RAS

See Remote Access Services.

recorded announcement route

A resource installed on the switch that offers a recorded announcement to callers.

relational expression

An expression used in scripts to test for different conditions. Relational expressions are less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), and not equal to (<>). *See also* expression, logical expression, mathematical expression.

Remote Access Services

A feature built into Windows NT and Windows 95 that enables users to log on to an NT-based LAN using a modem, X.25 connection, or WAN link. This feature is also known as Dial-Up Networking.

reporting supervisor

The supervisor who has primary responsibility for an agent. When an agent presses the Emergency key on the phoneset, the emergency call is presented to the agent's reporting supervisor. *See also* associated supervisor.

S**sample script**

A script that is installed with the Symposium Call Center Server client. Sample scripts are stored as text files in a special folder on the client. The contents of these scripts can be imported or copied into user scripts to create scripts for typical call center scenarios.

SCM

See Service Control Manager.

script

A set of instructions that relates to a particular type of call, caller, or set of conditions, such as time of day or day of week. *See also* Master script, primary script, secondary script.

script variable

See variable.

second-level threshold

The value used in display thresholds that represents the highest value of the normal range for a given statistic. The system tracks how often the value for the statistic falls outside this value.

secondary script

Any script (other than a Master or primary script) that is referenced from a primary script or any other secondary script. There is no pegging of statistics for actions occurring during a secondary script. *See also* Master script, primary script, script.

server

A computer or device on a network that manages network resources. Examples of servers include file servers, print servers, network servers, and database servers. Symposium Call Center Server is used to configure the operations of the call center. *See also* client.

service

A process that adheres to a Windows NT structure and requirements. A service provides system functionality.

Service Control Manager

A Windows NT process that manages the different services on the PC.

service level

The percentage of incoming calls answered within a configured number of seconds.

service level threshold

A parameter that defines the number of seconds within which incoming calls should be answered.

Simple Network Management Protocol

A systematic way of monitoring and managing a computer network. The SNMP model consists of four components:

- managed nodes, which are any device, such as hosts, routers, and printers, capable of communicating status to the outside world via an SNMP management process called an SNMP Agent
- management stations, which are computers running special network management software that interact with the Agents for status
- management information, which is conveyed through exact specifications and format of status specified by the MIB
- Management Protocol or SNMP, which sends messages called protocol data units (PDUs)

site

A system using Symposium Call Center Server that can be accessed using SMI.

skillset

A group of capabilities or knowledge required to answer a specific type of call.

skillset intrinsic

A script element that inserts information about a skillset in a script. Skillset intrinsics return values such as skillsets, integers, and agent IDs. These values are then used in queuing commands. *See also* call intrinsic, intrinsic, time intrinsic, and traffic intrinsic.

skillset priority

An attribute of a skillset assignment that determines the order in which calls from different skillsets are presented to an agent. When an agent becomes available, calls might be waiting for several of the skillsets to which the agent belongs. The server presents the call queued for the skillset for which the agent has the highest priority.

standby

In skillset assignments, a property that grants an agent membership in a skillset, but makes the agent inactive for that skillset.

supervisor

A user who manages a group of agents. *See also* associated supervisor and reporting supervisor.

switch

The hardware that receives incoming calls and routes them to their destination.

switch resource

A device that is configured on the switch. For example, a CDN is configured on the switch, and then is used as a resource with Symposium Call Center Server. *See also* acquired resource.

Symposium Web Center Portal call

A call to a CDN that is placed by Symposium Web Center Portal. The call is presented to the Incalls key on an agent's phoneset.

system-defined script

The Master_Script can be customized or deactivated by a user, but cannot be deleted. The first script executed for every call arriving at the call center.

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.

time intrinsic

A script element that stores information about system time, including time of day, day of week, and week of year. *See also* call intrinsic, intrinsic, skillset intrinsic, traffic intrinsic.

Token Ring

A PC network protocol developed by IBM. A Token Ring network is a type of computer network in which all the computers are arranged schematically in a circle.

traffic intrinsic

An intrinsic that inserts information about system-level traffic in a script. *See also* call intrinsic, intrinsic, skillset intrinsic, time intrinsic.

transition mode

A skillset state in which the server presents already queued calls to a skillset. New calls queued to the skillset are given out-of-service treatment. *See also* night mode, out-of-service mode.

Transmission Control Protocol/Internet Protocol

The communication protocol used to connect devices on the Internet. TCP/IP is the standard protocol for transmitting data over networks.

treatment

See call treatment.

U**user-created script**

A script that is created by an authorized user on the Symposium Web Center Portal system. Primary and secondary scripts are user-created scripts.

user-defined script

A script that is modified by an authorized user on the Symposium Web Center Portal system.

utility

A program that performs a specific task, usually related to managing system resources. Operating systems contain a number of utilities for managing disk drives, printers, and other devices.

V**validation**

The process of checking a script to ensure that all the syntax and semantics are correct. A script must be validated before it can be activated.

variable

A placeholder for values calculated within a script, such as CLID. Variables are defined in the Script Variable Properties sheet and can be used in multiple scripts to determine treatment and routing of calls entering Symposium Call Center Server. *See also* call variable, global variable.

voice port

A connection from a telephony port on the switch to a port on the IVR system.

W**WAN**

See also Wide area network.

Wide area network

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

workload scenarios

Sets of configuration values defined for typical patterns of system operations. Five typical workload scenarios (entry, small, medium, large, and upper end) are used in the Capacity Assessment Tool for capacity analysis for Symposium Web Center Portal.

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Reader Response Form

Nortel Networks Symposium Web Center Portal
Release 3.0
Installation and Administration Guide

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Nortel Networks Symposium Web Center Portal

Installation and Administration Guide

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