

**297-2183-904**

# **Nortel Networks Symposium Express Call Center**

Call Center Management Guide

Product release 3.0

Standard 3.0

September 2002

---

---

**NORTEL**  
**NETWORKS™**

P0913584

# Nortel Networks Symposium Express Call Center Call Center Management Guide

---

Publication number: 297-2183-904  
Product release: 3.0  
Document release: Standard 3.0  
Date: September 2002

---

Copyright © 2002 Nortel Networks, All Rights Reserved

Information is subject to change without notice. Nortel Networks reserves the right to make changes in design or components as progress in engineering and manufacturing may warrant.

The process of transmitting data and call messaging between the Meridian 1 and Symposium Express Call Center is proprietary to Nortel Networks. Any other use of the data and the transmission process is a violation of the user license unless specifically authorized in writing by Nortel Networks prior to such use. Violations of the license by alternative usage of any portion of this process or the related hardware constitutes grounds for an immediate termination of the license and Nortel Networks reserves the right to seek all allowable remedies for such breach.

\*Nortel Networks, the Nortel Networks logo, the Globemark, and Unified Networks, DMS, IVR, Meridian 1, Meridian Mail, MSL-100, and Symposium are trademarks of Nortel Networks.

MICROSOFT, MS-DOS, POWERPOINT, WINDOWS, and WINDOWS NT are trademarks of Microsoft Corporation.

CRYSTAL REPORTS is a trademark of Seagate Software, Inc.

PCANYWHERE is a trademark of Symantec Corporation.



# Publication history

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



# Contents

<b>1</b>	<b>Getting started</b>	<b>11</b>
	Overview . . . . .	12
	<b>Section A: About call centers</b>	<b>17</b>
	Overview . . . . .	18
	Call center objectives . . . . .	21
	Switching and routing concepts . . . . .	23
	Networking and Symposium Express Call Center . . . . .	26
	How skillset priorities affect call routing . . . . .	28
	Symposium Express Call Center components . . . . .	33
	<b>Section B: Connecting to the server</b>	<b>39</b>
	Configuring the server for the switch . . . . .	40
	Logging on to the Symposium Express Call Center server . . . . .	41
	Exploring the Administration window . . . . .	44
	Creating a desktop shortcut . . . . .	47
<b>2</b>	<b>Managing call presentation</b>	<b>49</b>
	Overview . . . . .	50
	Adding call presentation classes . . . . .	52
	Changing call presentation class properties . . . . .	55
	Printing, previewing, and exporting a list of call presentation classes . . . . .	56
	Deleting call presentation classes . . . . .	57
<b>3</b>	<b>Managing users</b>	<b>59</b>
	Overview . . . . .	60
	<b>Section A: User administration</b>	<b>61</b>
	User types in Symposium Express Call Center . . . . .	62
	Resetting desktop passwords . . . . .	65
	Changing desktop passwords . . . . .	68
	<b>Section B: Configuring users</b>	<b>69</b>
	Overview . . . . .	70
	Adding supervisors . . . . .	72
	Adding agents . . . . .	75

---

Changing user properties . . . . .	78	
Deleting users . . . . .	79	
<b>4</b>	<b>Configuring skillsets</b>	<b>81</b>
<b>Section A: Using skillsets</b>		<b>83</b>
About skillsets. . . . .	84	
Skill-based routing . . . . .	86	
<b>Section B: Adding and deleting skillsets</b>		<b>87</b>
Adding skillsets. . . . .	88	
Deleting skillsets. . . . .	90	
<b>Section C: Configuring agent to skillset assignments</b>		<b>91</b>
Overview. . . . .	92	
Configuring agent to skillset assignments . . . . .	94	
<b>5</b>	<b>Configuring Voice Services</b>	<b>97</b>
Overview. . . . .	98	
Types of Voice Services treatments . . . . .	99	
Configuring a transfer to a DN treatment. . . . .	103	
Configuring a comfort message treatment . . . . .	106	
Configuring a prompt/collect digits treatment . . . . .	110	
Configuring a voice menu treatment . . . . .	121	
Configuring additional Voice Menu treatments . . . . .	126	
Using prompt/collect digits treatments. . . . .	130	
<b>6</b>	<b>Configuring call treatments and call routing</b>	<b>135</b>
Overview. . . . .	136	
<b>Section A: Configuring call treatments</b>		<b>145</b>
Adding call treatments . . . . .	146	
Configuring emergency treatment . . . . .	159	
Activating the emergency state. . . . .	161	
<b>Section B: Configuring call routing</b>		<b>163</b>
How call routing works. . . . .	164	
Planning call routing. . . . .	167	
Configuring call routing . . . . .	171	

<b>7</b>	<b>Configuring switch resources</b>	<b>177</b>
	Overview.....	178
	<b>Section A: Working with CDNs</b>	<b>181</b>
	Overview of CDNs.....	182
	Adding CDNs.....	183
	Acquiring and deacquiring CDNs.....	185
	Other procedures for CDNs.....	186
	<b>Section B: Working with phonesets</b>	<b>187</b>
	Overview of phonesets.....	188
	Adding phonesets.....	189
	Acquiring and deacquiring phonesets.....	191
	Other procedures for phonesets.....	192
	<b>Section C: Working with activity codes</b>	<b>195</b>
	Overview of activity codes.....	196
	Adding activity codes.....	198
	Other procedures for activity codes.....	200
	<b>Section D: Working with DNISs</b>	<b>201</b>
	Overview of DNISs.....	202
	Adding DNISs.....	203
	Other procedures for DNISs.....	205
<b>8</b>	<b>Using the Alarm Monitor</b>	<b>207</b>
	About the Alarm Monitor.....	208
	Clearing active alarms.....	211
<b>9</b>	<b>Performing backups</b>	<b>213</b>
	Overview.....	214
	Performing partial backups.....	216
	Performing Voice Services backups.....	221
<b>A</b>	<b>Agent phoneset keys</b>	<b>229</b>
	The Display Waiting Calls key/lamp.....	230
	Unsupported agent phoneset keys.....	235
<b>B</b>	<b>Call-flow examples</b>	<b>237</b>
	Overview.....	238

Call-flow examples.....	241
<b>C Reserved words list</b>	<b>253</b>
Overview.....	254
<b>Glossary</b>	<b>257</b>
<b>Index</b>	<b>271</b>

# Chapter 1

---

## Getting started

### In this chapter

Overview	12
Section A: About call centers	17
Section B: Connecting to the server	39

# Overview

## Welcome

Nortel Networks announces Nortel Networks Symposium Express Call Center Release 3.0. This product provides a simplified call center solution for call centers with up to 150 agents and up to 5000 calls per hour.

## In this guide

The *Nortel Networks Symposium Express Call Center Call Center Management Guide* explains how to manage the day-to-day activities of your Symposium Express Call Center.

Be sure to refer to the *Nortel Networks Symposium Express Call Center Task Flow Guide* for information about

- the tasks you need to perform to set up and configure your call center
- the order in which to perform those tasks
- which documents to refer to for information about using or administering other tools and features of Symposium Express Call Center

## Who should read this guide

This guide is for administrators who are responsible for the day-to-day management of Symposium Express Call Center.

## Assumptions

This guide assumes that Symposium Express Call Center has been correctly installed and is operational. If the application has not been installed, then you should contact your distributor and get it installed.

## Access rights

This guide assumes that you have the required privileges and access rights to perform the procedures. For more information, refer to Chapter 3, “Managing users.”

## Optional features

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

## What’s new in this release

The following features described in this guide are new to Symposium Express Call Center Release 3.0:

- **Symposium Management Interface**  
You now use the Symposium Management Interface (SMI) Workbench to connect to each server from the client PC. When you double-click the system icon, the SMI Workbench initiates a connection to the server. When the connection is established, the Administration window opens. The Administration window contains programs for administering and monitoring Symposium Express Call Center.
- **Voice Services**  
A Voice Services card installed in the switch—Meridian 1 (M1), Meridian 1 Internet Enabled (M1 IE), or Succession Communication Server for Enterprise (CSE) 1000 (CSE 1000)—provides front-end voice processing capability to Symposium Express Call Center. It also enables you to provide recordings within a call treatment. The Voice Services card provides similar functionality to Meridian Mail; however, the Voice Services card enables you to play recorded announcements and voice menu options so that you can collect customer-entered data (Prompt/Collect Digits), or to inform callers of their position in queue or the amount of time they can expect to wait before their call is answered.

Voice Services is a keycoded option, available only if you have purchased the feature and have installed a Voice Services card on your switch.

For more information, see “Configuring call treatments” on page 145, and Chapter 5, “Configuring Voice Services.”

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

- **Expected Wait Time and Position in Queue**

You can provide announcements to callers informing them of the amount of time they can expect to wait before their call is answered. You can also inform callers of the position their call occupies in the skillset queue. Expected Wait Time and Position in Queue are keycoded features available only if you have purchased this feature, and if you have installed a VPS card on your switch. For more information, see “Configuring call treatments” on page 145.
- **Call Priority**

A call can be queued to a skillset with a priority between 1 and 3. If the call is not forwarded to an agent within a specific amount of time, the call can be overflowed to a low priority skillset. For more information, see “Configuring call routing” on page 171.
- **Calls Waiting and Overflow by Number thresholds**

You can configure the Calls Waiting threshold to determine the number of calls that must be waiting in a specific skillset queue before the Calls Waiting lamp on an agent’s phoneset appears.

The Overflow by Number threshold determines the number of calls that can be queued to a skillset before any new calls are overflowed to a low priority skillset.

For more information, see “Configuring call routing” on page 171.
- **Global call ceiling**

The global call ceiling threshold is the maximum number of active and queued calls for the entire call center. When the global call ceiling is reached or exceeded, the system executes the second overflow part of the call treatment. If this threshold is reached or exceeded, the caller is either played a busy announcement and then disconnected, or is transferred to a DN, based on how you configure the second overflow in the call treatment.

**Note:** When this ceiling is reached, the caller is disconnected even if you select Remain in Queue as the second overflow option. The caller will only remain in queue for all calls until the ceiling is reached.

- Busy ceiling per CLID, DNIS, and CDN thresholds

When the number of calls coming into an individual CLID, DNIS, or CDN reaches its respective ceiling, then the caller is either played a busy announcement and disconnected, or is transferred to a DN, based on how you configure the second overflow in the call treatment.

**Note:** When this ceiling is reached, the caller is disconnected even if you select Remain in Queue as the second overflow option. The caller will only remain in queue for all calls until the ceiling is reached.

For more information, see “Configuring call treatments and call routing” on page 135.

- Senior Supervisor user type

The senior supervisor can perform all tasks associated with a supervisor, and can also view the configuration properties of all agents in the call center. For more information, see “User types in Symposium Express Call Center” on page 62.

- Configuring switch resources

In Symposium Express Call Center Release 3.0, customer administrators can configure CDNs, DNISs, phonesets, and activity codes.

For more information, see Chapter 7, “Configuring switch resources.”

- Support for Windows 2000 Professional/Windows XP Professional

You can install Symposium Express Call Center on a Windows 2000 Professional/Windows XP Professional client PC. However, the Symposium Express Call Center Release 3.0 application software for Windows 2000 Professional/Windows XP Professional is packaged on a separate CD. You must obtain the CD from your Nortel Networks distributor.

**Note:** To upgrade from a Windows 2000 client PC to Windows XP, you must use the Migration utility provided on the CD. You must obtain the CD from your Nortel Networks distributor.



# Section A: About call centers

## In this section

Overview	18
Call center objectives	21
Switching and routing concepts	23
Networking and Symposium Express Call Center	26
How skillset priorities affect call routing	28
Symposium Express Call Center components	33

# Overview

## What is a call center?

A call center is an environment designed to process telephone calls efficiently while maximizing customer satisfaction. A call center can be as small as two people who are frequently on the phone, or it can employ hundreds of people who respond to a variety of customer inquiries.

## Call center components

Call center components include

- the representatives who answer the calls (also called agents)
- management personnel
- technology that distributes calls to the appropriate representatives
- an online computer system to record caller requests and inquiries, and to look up information

## Role of the call center manager

A call center can be found within a department, or it can be the single business unit that comprises a company. Regardless of the size of the call center, the requirements of successful call center management are the same:

- to deliver caller satisfaction through prompt, professional call handling
- to control costs by using facilities efficiently
- to help staff work productively
- to increase profitability

Whether callers are purchasing products, requesting service, or seeking information, the call center must have technology that delivers the timely service they expect.

## Call processing

Typically, a call center has a number of agents available to answer incoming calls. When a call comes in to the call center, it is automatically directed to one of these agents. Call distribution can occur on the switch, or it can be controlled by a product like Symposium Express Call Center.

## Skill-based routing

Symposium Express Call Center can perform skill-based routing. Instead of simply directing the call to an available agent, Symposium Express Call Center directs the call to the agent who best meets the customer's needs.

## Queue

The queue is the number of calls waiting to be answered. Frequently, the queue is invisible. That is, callers do not know their position in the queue. Symposium Express Call Center provides information that helps you make the queue visible—you can tell customers their expected wait time or you can play appropriate messages based on their position in queue. This is a keycoded feature, available only if you have purchased the Position in Queue option.

## Agent Occupancy

Agent occupancy is the amount of time during a half-hour period that agents are on a call (talk time) or in post-call processing (Not Ready time). Symposium Express Call Center provides reports and displays that you can use to monitor agent occupancy, talk time, and Not Ready time.

## Call abandonment

Call abandonment measures the number of calls abandoned before being answered. The time when calls are abandoned is as important as the number of calls abandoned. Callers may abandon early because they have decided not to wait, or they may abandon in frustration after a long wait. Symposium Express Call Center lets you gather abandonment statistics.

## Service level

The service level is the percentage of incoming calls answered within a specified number of seconds. For example, you may have the objective, “80 percent of calls are answered within 20 seconds.” In this case, your service level is 80 percent and your threshold time is 20 seconds. Your actual service level, reported by Symposium Express Call Center, may be “77 percent of calls are answered within 20 seconds.” The server uses the following equation to calculate service level:

$$\frac{\{[(\text{Calls Answered} + \text{Calls Abandoned}) - (\text{Calls Answered After Threshold} + \text{Calls Abandoned After Threshold})] * 100\}}{(\text{Calls Answered} + \text{Calls Abandoned})}$$

where the threshold is the number of seconds defined in your service level objective (for example, 20).

### Example

Your call center answers 80 calls in one hour. Of those calls, 10 calls are answered after the threshold. During the same period, 20 calls are abandoned. Of those calls, 13 calls are abandoned after the threshold. In this case, the service level is

$$\frac{\{[(80+20)-(10+13)]*100\}}{(80+20)} = 77\%$$

# Call center objectives

## Introduction

To process calls efficiently, you must fully understand the objectives of the call center. Generally, a call center has three major objectives:

- Maximize call center efficiency.
- Maximize caller satisfaction.
- Analyze how your call center is functioning, and make decisions on how best to improve service.

## Maximize call center efficiency

To maximize the efficiency of your call center, you must accomplish the following goals:

- Increase productivity.
- Improve service.
- Decrease costs.
- Handle unusual situations.

In an efficient call center, agents process calls that they are qualified to handle. You must ensure incoming calls are presented to the agents best prepared to deal with the requirements of the call. This is the basis for skill-based routing: determine a caller's requirements and route the call to an agent who has the knowledge to deal with it effectively.

Callers should wait for as short a time as possible before speaking with an agent. This accomplishes two things: the caller is less likely to hang up while waiting in queue, and agents spend as little time as possible waiting to answer calls. When both of these conditions are met, costs decrease and profits increase.

Occasionally, an incoming call is not presented to the intended agent. For example, the call is returned to the queue or is disconnected. Configure routing to prevent such situations or to deal with them in the event they do occur. You must consider unexpected conditions and determine methods to resolve them.

## Maximize caller satisfaction

Callers should speak to a qualified agent immediately. However, due to large call volumes and a limited number of agents, this is not always the case. You can, however, try to reduce the amount of time each caller waits in queue.

Caller satisfaction is extremely important. Callers waiting in queue do not want to hear silence until their call is answered. They want to know what is happening to their call. If callers begin to doubt that their call is being handled properly, they may hang up.

There are several ways to ensure maximum caller satisfaction. You can

- prioritize calls based on your most important callers
- give callers options while waiting in queue
- play appropriate messages based on their expected wait time or their position in queue

This functionality is provided by the Expected Wait Time feature, which is a keycoded option. It is available only if you purchase the option.

- let callers speak with an agent of their choice
- let callers speak with an agent in the language of their choice

## Track and report on call information

When configuring call routing, consider that you can track call-related information and store it in a database for later analysis. Take time to plan call routing to track the information you need. You can use this information later in reports that enable you to analyze how your call center is functioning, and make decisions on how best to improve service. For example, you may want to know the average amount of time agents spend answering calls, or the number of abandoned calls.

# Switching and routing concepts

## Introduction

This section provides a basic overview of switching and routing concepts. It is for informational purposes only. All of the switch resources are configured and acquired by the distributors who install and configure your systems. For more information, refer to Chapter 7, “Configuring switch resources.”

This section briefly outlines concepts such as

- controlled directory numbers (CDNs)
- routes
- phonesets
- voice ports
- IVR ACD-DNs
- Dialed Number Identification Service (DNIS)
- calling line ID (CLID)

## Controlled directory number

A controlled directory number (CDN) allows incoming calls to be queued into the switch and messages about these calls to be sent to Symposium Express Call Center.

Symposium Express Call Center must acquire a CDN so that the system can track when calls are terminated at that CDN. Before the system can acquire a CDN, however, the CDN must be configured on the switch and then added to the Symposium Express Call Center database.

If you want to add a CDN, contact your distributor.

## Route

A route defines a group of trunks. Each trunk carries incoming and outgoing calls to and from the switch.

If you want to include a route on reports, then you must add the route on Symposium Express Call Center. If you want to create All Trunks Busy (ATB) reports for the route, then you must acquire that route.

You must add routes on Symposium Express Call Center to allow the routes to appear on reports and to allow the system to acquire them.

**Note:** Symposium Express Call Center only supports FGDT, TIE, DID, COT, FEK, and WATS route types.

## Phoneset

Your distributor must add and acquire each phoneset at which agents and supervisors log on to the system. When Symposium Express Call Center acquires a phoneset, the switch begins sending messages about these phonesets to the system.

If you want to add a new phoneset, contact your distributor.

## Voice port

A voice port is defined as a 2500 phoneset for third-party IVR systems, or an RCS (517 or 2009) phoneset for Meridian Mail. If you use Meridian Mail, then you must have dedicated voice ports. Symposium Express Call Center cannot share voice ports with any other Meridian Mail application.

**Note:** If you have purchased and installed an optional Voice Services card in the switch, your distributor must also configure voice ports specifically for the Voice Services card.

To add a voice port, contact your distributor.

## IVR ACD-DN

An IVR ACD-DN is a directory number that routes a caller to a specific IVR application. The IVR ACD-DN also provides Meridian Mail treatment.

If your call center uses Meridian Mail for call treatment, then your distributor must add and acquire a new IVR ACD-DN.

## **DNIS**

A DNIS is a setting on the switch that indicates the number used to dial in to the call center switch. For example, a call center can have different 1-800 numbers that customers use to reach different skillsets or departments within the call center.

All DNIS numbers used by Symposium Express Call Center must either auto-terminate on a Symposium Express Call Center CDN or use an IDC table to map to a Symposium Express Call Center CDN. For more information, contact your distributor.

## **CLID**

A CLID is a setting on the switch that tracks the number from which the caller is calling. For example, Symposium Express Call Center can track the area code of the caller and direct the calls according to the area code. CLIDs must be made available from the central office/PSTN.

# Networking and Symposium Express Call Center

## Introduction

This section gives a brief overview of the networking features of Symposium Express Call Center.

**Note:** Symposium Express Call Center supports NACD; it does not support Network Skill-Based Routing.

## Networking features

- NACD calls arrive at the server through a network ACD-DN and are presented to a phoneset acquired by Symposium Express Call Center.

**Note:** Delay and abandon statistics are not available for NACD calls.

- Calls can be overflowed to NACD by entering the NACD number in the Second Overflow Treatment section of the Overflow Configuration window. For more information on this window, see page 153.
- If the remote system has a Symposium Express Call Center system configured, then the call is presented to an Express agent on a separate ACD key on the agent's phoneset. Incoming calls "toggle" between Symposium Express Call Center skillset calls and NACD calls.
- In the remote Symposium Express Call Center system, the incoming NACD call is treated as a new call.

## Tracking

For NACD calls, the server does not record information about call activity on the switch. NACD calls are tracked from the time that they are answered at a phoneset acquired by Symposium Express Call Center. Therefore, the server does not record the following statistics for ACD calls:

- calls offered
- calls waiting

- calls abandoned (and abandon delay)
- calls returned to queue

The Symposium Express Call Center Agent Network/NACD Activity Report details the statistics for incoming NACD calls. This report shows the agent activity on network and networked ACD-DN calls. It shows the calls answered, conferenced, and transferred, as well as the total and average talk time for network and NACD calls. Refer to the *Symposium Express Call Center Reports and Displays Guide* for more information.

# How skillset priorities affect call routing

## Introduction

This section describes skillset priorities, and gives examples of how skillset priorities affect call routing. This section uses a fictional call center, BestAir Airlines, to provide examples of how calls are routed in different situations.

## Skillset priorities

When you configure call routing, you can set a priority level of 1 to 3 (1 being the highest) for each CLID, DNIS, and CDN in your call center. For example, you may queue calls to a specialized skillset, such as European Vacations, with a priority of 1, and also queue the same calls to a General Sales skillset, configured as an overflow skillset, with a priority of 3.

Symposium Express Call Center first queues calls to the European Vacations skillset. If the first overflow timer expires, then the call is queued to the overflow skillset, General Sales.

For more information about setting call overflow treatments, see “Configuring call treatments” on page 145.

For more information about assigning priority levels to skillsets, see “Configuring call routing” on page 171.

## Skillset priority and agents

Agents have priorities within skillsets. The skillset priority determines which call is presented to an agent first. If calls are queued for two or more of the skillsets to which an agent belongs, and there are other agents available to take the calls, then the system checks the skillset priority for the agent to determine which call to present first. If there is only one agent idle, the highest priority call will be presented, regardless of the agent’s skillset priorities.

Similarly, if there are two agents available who belong to the same skillset, incoming calls are queued to the agent with the higher priority for that skillset.

For more information about agent to skillset assignments, see “Configuring agent to skillset assignments” on page 94.

## Example: BestAir Airlines

The following section describes how the example call center of BestAir Airlines is set up.

### Types of calls

BestAir Airlines handles the following three types of calls:

- Vacations
- Corporate Sales
- Customer Service

There is a skillset for each call type, and a fourth skillset handles general inquiries.

### DNIS numbers

Callers dial different 1-800 numbers, or DNISs, to reach BestAir Airlines. The numbers that customers dial are

- 123REST (for vacations)
- 123WORK (for Corporate Sales)
- 123HELP (for Customer Service)

### Call priority

The following table shows how BestAir Airlines’ call routing is set up:

<b>Skillset priorities</b>				
<b>DNIS</b>	<b>Vacations</b>	<b>Corporate Sales</b>	<b>Customer Service</b>	<b>General Inquiries</b>
123REST	1		0.2	0.3
123WORK		1		0.2
123HELP	1		0.3	

Calls to 123REST are queued to the Vacations skillset with a priority of 1. If the overflow period expires, then calls are queued to the Customer Service skillset with a priority of 2. If the call remains in the Customer Service skillset and the overflow period expires before the call is answered, then the caller is played a busy announcement or the call is passed to a DN. This is configured in the Call Treatments wizard. For more information, refer to “Configuring call treatments” on page 145.

### Skillset assignments

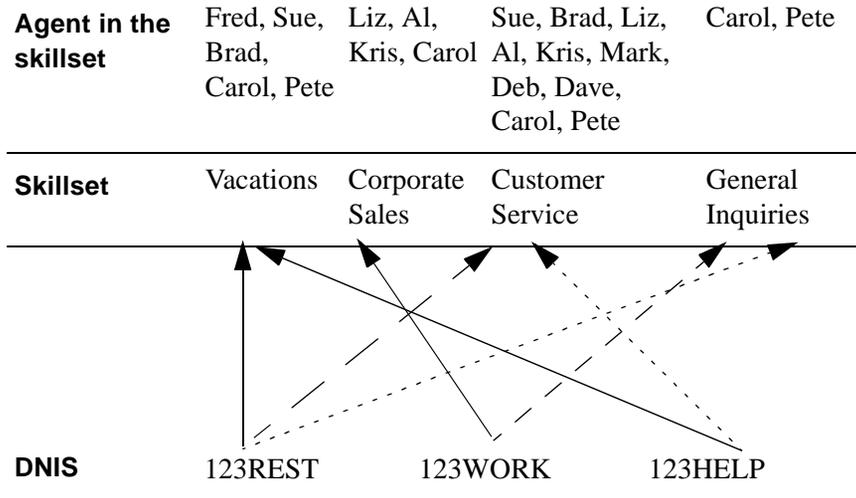
The following table shows BestAir Airline’s agent to skillset assignments:

Agent	Skillset priority			
	Vacations	Corporate Sales	Customer Service	General Inquiries
Fred	1	0	0	0
Sue	1	0	2	0
Brad	1	0	2	0
Liz	0	1	2	0
Al	0	2	1	0
Kris	0	1	2	0
Mark	0	0	1	0
Deb	0	0	1	0
Dave	0	0	1	0
Carol	2	2	3	4
Pete	2	0	3	4

### Call routing

The following illustration shows how calls coming in to BestAir Airline’s call center are routed, based on the information above:

**Note:** A solid line indicates that a call is queued with a priority of **1**. A broken line indicates that a call is queued with a priority of **2**. A dotted line indicates that a call is queued with a priority of **3**.



Calls are only presented to the second or third priority skillsets after the overflow timers run out.

**Examples of how calls are routed**

The following examples show how calls are routed in different situations, given the information above:

1. **Agents idle.** A call enters the call center from the 123WORK number and is queued to the Corporate Sales skillset. The call can be queued to Liz, Al, Kris, and Carol. Liz and Kris have the highest priority for this skillset. The agent who is idle the longest gets the call.
2. **All agents are busy.** A call enters the call center from the 123WORK number and is queued to the Corporate Sales skillset. All agents are busy, and the call overflows to the General Inquiries skillset. The call is now answered by the longest idle agent in the Corporate Sales and General Inquiries skillsets, rather than by the agent with the higher skillset priority.

**Note:** If two agents have been idle for the same amount of time, then the agent with the higher skillset priority gets the call.

3. **High priority call enters the queue.** A call enters the call center from the 123REST number and is queued to the Vacations skillset with a priority of 1. The overflow period expires and the call is then queued to the Customer Service skillset with a priority of 2. The call jumps ahead of any calls already in the queue that have been overflowed to the Customer Service skillset from the 123HELP number.
4. **No logged on agents.** If there are no agents logged on to any skillsets, then calls receive emergency treatment. For more information, refer to “Configuring emergency treatment” on page 159.
5. **Skillset out of Service.** If a call comes into the call center and attempts to queue to a skillset that is out of service (that is, there are no agents logged on to that skillset), then the call receives treatment configured in the Out of Service screen in the Call Treatment Wizard.

# Symposium Express Call Center components

## Introduction

Symposium Express Call Center is a client/server call center application that provides sophisticated call routing and management information to small call centers. Symposium Express Call Center consists of the following components:

- a server that is a customer-supplied PC running Windows NT Server 4.0, and on which the Symposium Express Call Center server software is installed. The Symposium Express Call Center server processes calls and stores statistics.
- a client that is a customer-supplied PC running either Windows NT Workstation 4.0, Windows 98, Windows 2000, or Windows XP, and on which the Symposium Express Call Center client software is installed. A copy of the client software is always installed on the same PC as the server. In addition, you can install separate copies of the client on PCs used by your supervisors.
- Symposium Express Call Center software that runs on the server and is accessed and controlled by the client PCs
- a Sybase database that is installed as part of the server installation
- an M1, M1 IE, or Succession CSE 1000 switch that receives and directs calls to the call center application, as well as software for administering the M1, M1 IE, or Succession CSE 1000 switch
- a Voice Services card installed in the M1, M1 IE, or Succession CSE 1000 switch. The Voice Services card is a keycoded feature.
- an embedded or private LAN (ELAN) that connects the M1, M1 IE, or Succession CSE 1000 switch and the server
- pcAnywhere Version 9.2 support software that is installed on the server. It is included in the Symposium Express Call Center Server Application CD and must be installed prior to the Symposium Express Call Center server software.
- a separate customer LAN (CLAN) if you have more than one client PC to support communication between the client and server

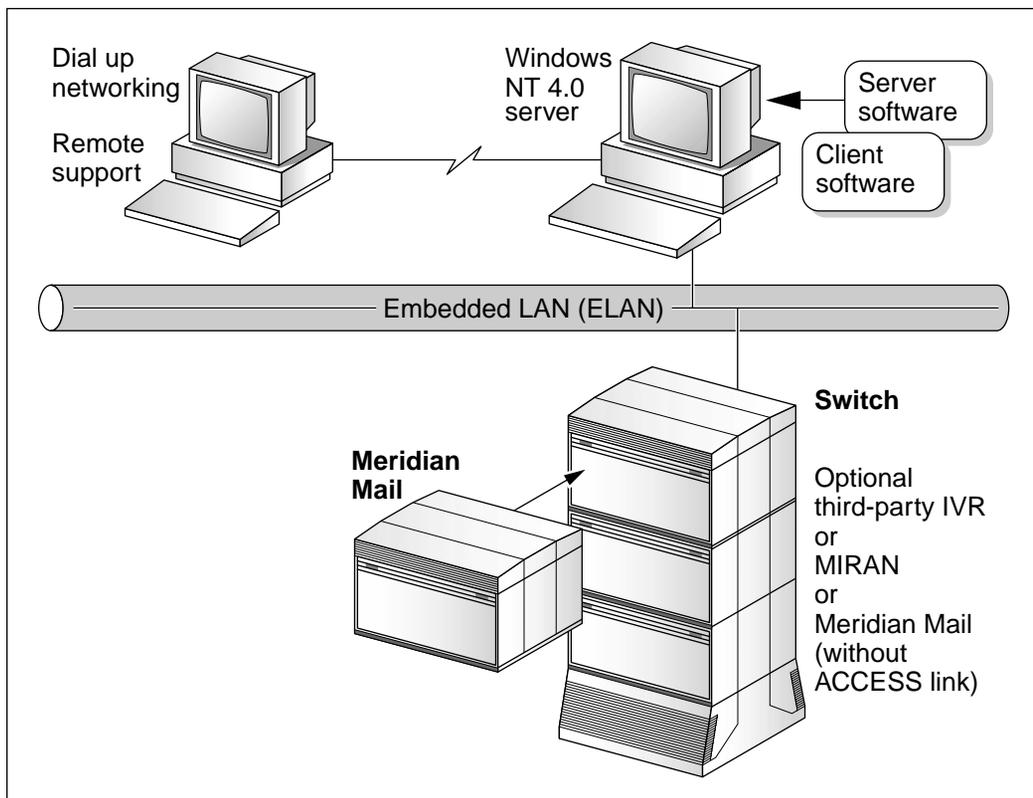
- Meridian Mail, MIRAN, or RAN if you do not purchase a Voice Services card and you want to play announcements
- a music source, if you want to play music

## Setup options

There are two setup options for Symposium Express Call Center:

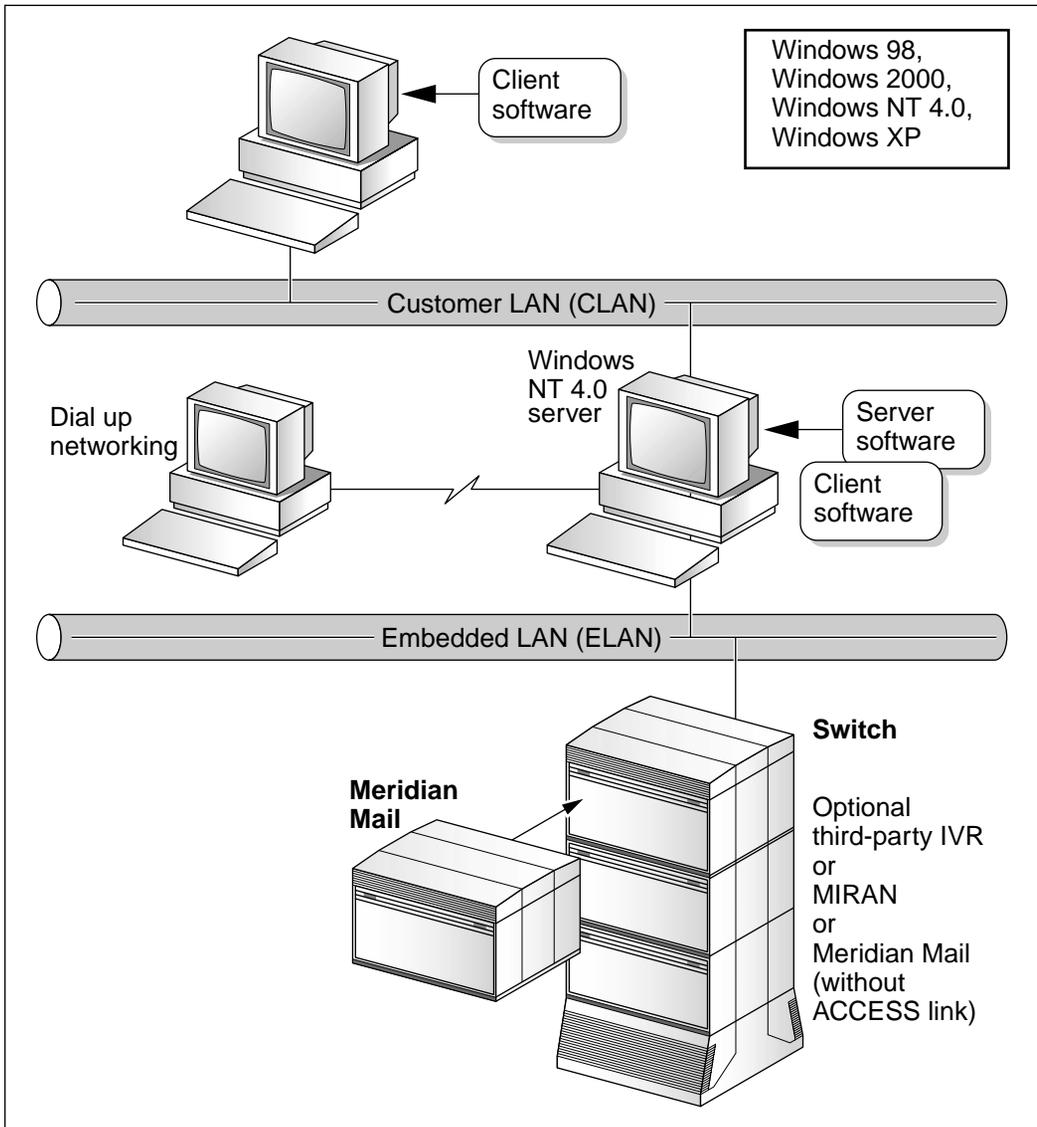
1. There is always both a server and a client on the same PC running on Windows NT Server 4.0. There are no additional client PCs.
2. You can then have additional separate client PCs running one of Windows NT Workstation 4.0, Windows 98, Windows 2000, or Windows XP.

The following diagram shows a single PC installation:



G101184

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



G101185

## Description

As shown in the diagrams, Symposium Express Call Center operates in a client/server environment, although one PC acts as both the client and the server. The single PC installation facilitates remote support.

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

The server connects to both the CLAN and the ELAN. Control signals for the M1, M1 IE, or Succession CSE 1000 switch are sent over the ELAN by way of the AML link from the server.

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

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



## Section B: Connecting to the server

### In this section

Configuring the server for the switch	40
Logging on to the Symposium Express Call Center server	41
Exploring the Administration window	44
Creating a desktop shortcut	47

# Configuring the server for the switch

## When to use

Your distributor configures the server to work with the M1, M1 IE, or Succession CSE 1000 switch. If the switch is not configured, then contact the distributor to install and configure your system. Once your distributor installs and configures your Symposium Express Call Center, you can perform the tasks outlined in this guide.

# Logging on to the Symposium Express Call Center server

## Introduction

Follow the procedure in this section to connect and log on to the Symposium Express Call Center server from the client.

**Note:** The server and one client reside on the same computer. You can also install the client software on additional computers.

When you access the server system from a client PC, you see the Nortel Networks SMI Logon dialog box. The Nortel Networks SMI Logon dialog box is the security barrier to unauthorized users.

## Prerequisite

Before you connect to the server, your distributor must install and configure your system.

## To log on to the server

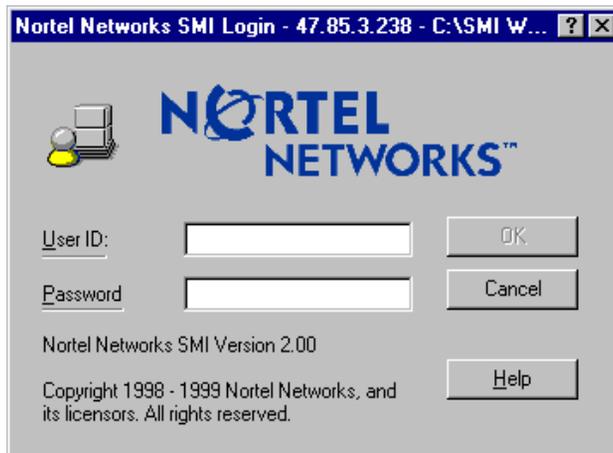
- 1 From the Start menu, select Programs → SMI Workbench, and then double-click the server icon in the SMI Workbench folder (or double-click the desktop shortcut, if one is available). If the icon is not there, add one as follows:
  - a. Click Add System.  
**Result:** The Add SMI System window appears.
  - b. Enter the computer name or IP address of the server.
  - c. Click Verify Address. If the address cannot be verified, check the client server connection and the IP address of the server.
  - d. Click Next.
  - e. Enter a System Name. This is the name of the icon that appears on the SMI Workbench folder.

- f. Click Finish.

**Result:** The server icon appears in the SMI Workbench folder.

- g. Double-click the server icon in the SMI Workbench folder.

**Result:** The client workstation connects to the server, and the Nortel Networks SMI Login dialog box appears.



**Note:** If the connection fails, then a message indicates a problem with connecting to the server. Check the IP address in the shortcut properties and try again.

- 2 Enter your user ID.

**Note:** The user ID for the customer administrator is “custadmin.”

- 3 Enter your password as provided by your Nortel Networks representative.  
4 Click OK.

**Result:** If you are logging on for the first time with a new password, the Password Expiry dialog box appears.

- 5 Click Change Password.

**Result:** The Change Password dialog box appears.

- 6 For Old Password, enter the password that you used in step 3.

- 7 For New Password and Confirm New Password, enter the new password, and then click OK.

**Result:** The Administration window appears.

**Note:** If you attempt to log on with the customer administrator's user ID (custadmin), but cannot provide the correct password, the system locks you out after the third attempt. If this happens, contact your distributor for support.

# Exploring the Administration window

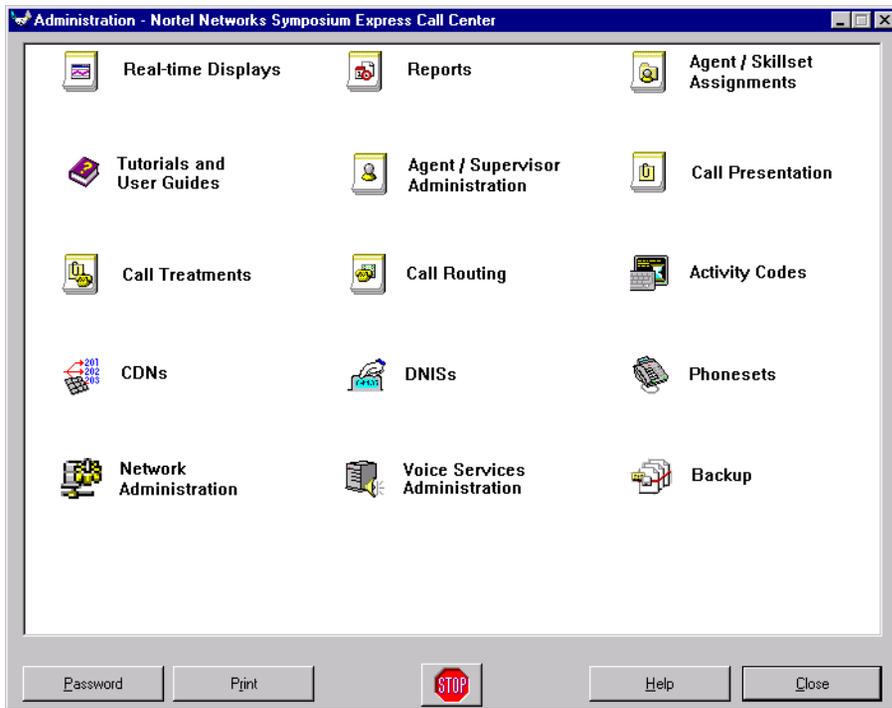
## Opening the Administration window

To open the Administration window, you must first log on to the server. For more information, see “Logging on to the Symposium Express Call Center server” on page 41.

If you log on to the server using the customer administrator user ID, then you can see all of the icons for these tasks. However, if you log on to the server using a supervisor ID, then you can see only some of these icons. For more information about access levels, see “User types in Symposium Express Call Center” on page 62.

## The Administration window

The following illustration shows the Symposium Express Call Center Administration window as it appears when you log on using the customer administrator user ID:



## Administrative tasks

The Administration window contains a set of icons that allow you to do the following tasks:

- View real-time displays and set thresholds.
- Administer agent to skillset assignments.
- Configure how calls are presented to agents.
- Configure activity codes.
- Run and configure reports.
- Create and administer agents and supervisors.
- Configure call routing.
- Configure call routing between Symposium Express Call Center and three remote Symposium Express Call Center or Symposium Call Center Server call centers.

This option is available only if you have purchased the Network Skill-Based Routing feature.

- Run tutorials and view online documentation.
- Create and administer call routing classes.
- Configure Voice Services announcements.
- Configure how calls are treated when they are presented to Symposium Express Call Center.
- Run Symposium Express Call Center database backups.

The Administration window also contains buttons that allow you to do the following tasks:

- Change your password.
- View and print the call center configuration report.
- Activate the emergency message.
- View online Help.
- Close all of the windows and disconnect from Symposium Express Call Center.

# Creating a desktop shortcut

## When to use

Windows NT requires a user ID and password that are different from the ones you use to log on to Symposium Express Call Center. Each Windows NT user ID is associated with its own set of desktop icons. You can use a different Windows NT user ID and password from the ones that the installer used to install Symposium Express Call Center. If so, you may not see the desktop shortcut that you need to access the system.

Follow the procedure in this section to create a shortcut on the desktop to access Symposium Express Call Center.

## Before you begin

You or your distributor must install the Symposium Express Call Center client software.

## To create a desktop shortcut

- 1 From the Windows Start menu, choose Programs → SMI Workbench.
- 2 In the SMI window, right-click the icon for the Symposium Express Call Center site for which you want to create a shortcut.
- 3 Drag the cursor to your desktop, release the mouse button, and then choose Create Shortcut(s) Here from the context-sensitive menu.

**Result:** The shortcut for the system appears on your desktop.



# Chapter 2

---

## Managing call presentation

### In this chapter

Overview	50
Adding call presentation classes	52
Changing call presentation class properties	55
Printing, previewing, and exporting a list of call presentation classes	56
Deleting call presentation classes	57

# Overview

## Introduction

Symposium Express Call Center allows you to specify how calls are presented to agents. Agents control their readiness to receive calls by logging on to their phonesets and placing their phonesets in a Ready state.

## Call presentation classes

A call presentation class is a set of call presentation options that you can assign to an agent. You can customize the following call presentation options:

- how incoming calls are presented to agents. Calls can be
  - automatically answered on an agent phoneset after they have been in the system for a specified period of time (call force option). Agents do not need to press the Incalls key to accept the call.

**Note:** The agent must use a headset if you use the call force option.

- presented to an agent phoneset for a specified length of time, and then, if not answered, returned to the queue
- presented to an agent phoneset, remaining there until they are answered or abandoned
- whether agents are provided with a break between calls and, if so, the length of the break
- whether agents can place directory number (DN) calls on hold for incoming calls

## Example

At BestAir Airlines, agents in the Sales skillset update the customer database after each call. This takes about 1 minute. Therefore, the agents' call presentation class allows a 60-second break after each call. In contrast, agents in the Information skillset do not usually perform any after-call work, so the call presentation class for those agents does not include a break.

## Default call presentation settings

Before you set up a call presentation class for your call center, the following default behavior applies:

- Calls are presented to an agent. If a call is not answered after 18 seconds, it is returned to the queue. Then the agent's phoneset is placed in a Not Ready state.
- Agents receive no break after a call.
- Agents can take incoming call center calls by placing their DN call on hold.

Callers who are on hold or waiting to be presented to an agent receive the treatment specified in the Call Routing wizard, which can include music, silence, or a recorded announcement. For more information, see Chapter 6, "Configuring call treatments and call routing." Symposium Express Call Center routes calls to agents according to their skillsets. For more information, see Chapter 4, "Configuring skillsets."

# Adding call presentation classes

## When to use

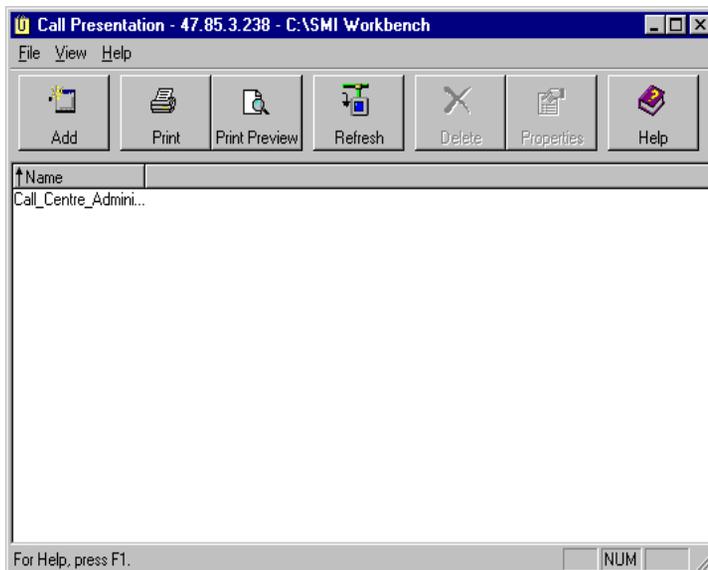
Follow the procedure in this section to add call presentation classes to your call center. You can configure the following options:

- the presentation method for incoming calls
- whether a break is allowed between calls, and the length of the break
- whether agents can place directory number (DN) calls on hold for incoming call center calls

## To add call presentation classes

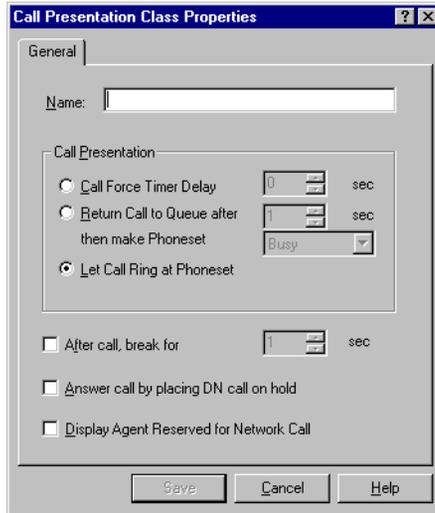
- 1 From the Administration window, double-click the Call Presentation icon.

**Result:** The Call Presentation window appears.



2 Click Add.

**Result:** The Call Presentation Class Properties dialog box appears.



3 Enter a name for the call presentation class.

4 Set the call presentation method.

IF the call is to be	THEN
answered automatically on the agent phoneset without the agent having to press the Incalls key to accept the call <b>Note:</b> The agent must use a headset to use this option.	a. check Call Force Timer Delay. b. specify the amount of time before the call is forced.
returned to the queue if not answered within a specified time	a. check Return Call to Queue after. b. specify the amount of time before the call is returned to the queue. c. select the mode for the phoneset.
left ringing until it is answered	a. check Let Call Ring at Phoneset.

**5** Decide whether to allow a break after the end of a call.

<b>IF you</b>	<b>THEN</b>
want to set a break time between calls to an agent phoneset	<p><b>a.</b> check After call, break for.</p> <p><b>b.</b> specify the length of time for the break.</p>
do not want to set a break time	<p><b>a.</b> check After Call, break for.</p>

**6** Decide whether the agent is able to place DN calls on hold so that he or she can answer call center calls.

**7** Click Save.

**Result:** You return to the Call Presentation window, and the new call presentation class appears on the list.

## What's next?

To assign the call presentation to a new agent, see “Adding agents” on page 75.  
 To assign the call presentation class to an existing agent, see “Changing user properties” on page 78.

# Changing call presentation class properties

## Introduction

Follow the procedure in this section to change the properties of a call presentation class. When you change the properties of a call presentation class, the changes take effect immediately for new calls that are presented to the agents who belong to that class.

## To change call presentation class properties

- 1 In the Administration window, double-click the Call Presentation icon.

**Result:** The Call Presentation window appears.

- 2 Select the call presentation class that you want to change.

- 3 Choose File → Properties.

**Result:** The Call Presentation Class Properties dialog box appears.

- 4 Change the call presentation class properties as necessary.

- 5 Click Save.

**Result:** You return to the Call Presentation window, and the changes take effect for new calls that are presented to agents who belong to this class.

If you changed the call force option, then the agents' phonesets display the message "Profile Changed." The phonesets are put into not ready state until the agent presses Not Ready.

# Printing, previewing, and exporting a list of call presentation classes

## Introduction

Follow the procedure in this section to print a list of call presentation classes. You can print a list of all call presentation classes or only selected ones.

## To print, preview, or export a list of call presentation classes

- 1 In the Administration window, double-click the Call Presentation icon.  
**Result:** The Call Presentation window appears.
- 2 Choose one of the following options:

IF you want to	THEN
print a list of call presentation classes	<ol style="list-style-type: none"> <li>a. select File → Print.</li> <li>b. in the Windows Print dialog box, choose to print all or a selection of call presentation classes, and then click OK.</li> </ol>
preview a list of call presentation classes	<ol style="list-style-type: none"> <li>a. select File → Print Preview.</li> <li>b. in the Print preview dialog box, click All or Selection, and then click Print Preview.</li> </ol>
export a list of call presentation classes	<ol style="list-style-type: none"> <li>a. select File → Print Preview.</li> <li>b. in the Print preview dialog box, click All or Selection, and then click Print Preview.</li> <li>c. in the report window that appears, click Export on the toolbar, and then choose the Export options.</li> </ol>

Click the Close box to return to the Call Presentation window.

# Deleting call presentation classes

## Introduction

Follow the procedure in this section to delete a call presentation class.

### Notes:

1. You cannot delete the default call presentation class that is installed with Symposium Express Call Center.
2. You cannot delete a call presentation class if it is assigned to an agent. You must assign another call presentation class to the agent first.

## To delete call presentation classes

- 1 In the Administration window, double-click the Call Presentation icon.  
**Result:** The Call Presentation window appears.
- 2 Select the call presentation class that you want to delete.
- 3 Choose File → Delete.
- 4 Click Yes to confirm the deletion.



# Chapter 3

---

## Managing users

### In this chapter

Overview	60
Section A: User administration	61
Section B: Configuring users	69

# Overview

## Introduction

This chapter provides an overview of user administration, and describes the various types of users and their access privileges on Symposium Express Call Center. This chapter also gives the procedures to add new users, and to change the properties for existing users.

## Before you begin

If you have not created call presentation classes, you must assign each user the default call presentation class. For more information, see “Adding call presentation classes” on page 52.

# Section A: User administration

## In this section

User types in Symposium Express Call Center	62
Resetting desktop passwords	65
Changing desktop passwords	68

# User types in Symposium Express Call Center

## Introduction

This section describes the types of users in the system and their access levels. Symposium Express Call Center requires that each user supply a user ID and password to log on. The user ID and password vary with the type of user. Each type of user has different system access levels. These access levels are set, and they cannot be changed.

## User access model

There are four types of users on Symposium Express Call Center:

- the system administrator (user ID: sysadmin)
- customer administrator (user ID: custadmin)
- senior supervisors
- supervisors

**Note:** Agents do not have PC user IDs. They can only log on to their phonesets.

When your distributor installs Symposium Express Call Center, the system administrator and customer administrator are created automatically. You must add supervisors, senior supervisors, and agents individually.

## System administrator

The system administrator (sysadmin) has complete access to all functions associated with the Administration window of Symposium Express Call Center. For information about the capabilities of the system administrator, refer to the *Symposium Express Planning, Installation, and Administration Guide*.

**Note:** You cannot add additional system administrator user IDs.

## Customer administrator

The customer administrator (custadmin) has complete access to most of the functions (except Advanced Functions and Import) associated with the Administration window of Symposium Express Call Center. The customer administrator also can view the Alarm Monitor.

**Note:** You cannot add additional customer administrator user IDs.

## Supervisor capabilities

Supervisors and senior supervisors on Symposium Express Call Center can do the following tasks:

- Run any report.
- Use real-time displays to view the status of agents assigned to them.
- View and edit agent to skillset assignments for agents assigned to them.
- View all online tutorials.

Supervisors and senior supervisors cannot see or access the following icons on the Administration window:

- Import
- Advanced Functions
- Call Presentation
- Call Treatment
- Call Routing
- Activity Codes
- CDNs
- DNISs
- Phonesets
- Network Administration
- Backup
- Voice Services Administration
- Import

Supervisors cannot perform the following tasks:

- Add or remove either the agent or the supervisor attribute for any users.
- View the Expected Wait Time and Position in Queue statistics.
- View Call Priority.
- View the Alarm Monitor window.
- View the Stop button.

## **Senior supervisor capabilities**

Senior supervisors can perform all tasks associated with a supervisor, as well as view the configuration properties of all agents in the call center (not only the agents assigned to them).

## **Adding user accounts to the system**

For information about adding user accounts to Symposium Express Call Center, see Section B: “Configuring users,” on page 69.

# Resetting desktop passwords

## Introduction

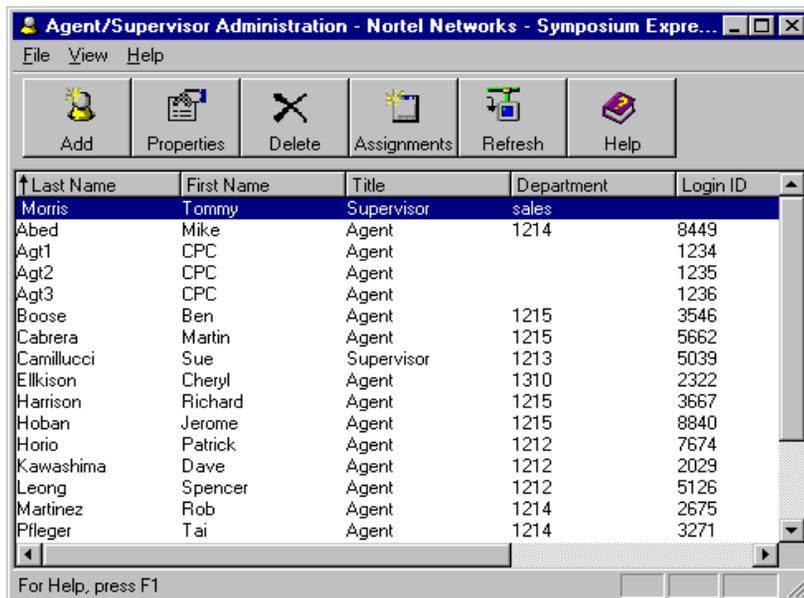
Follow the procedure in this section if a user forgets his or her password. When you reset a password, it changes back to the original, or default, password. The default password is the same as the user ID. For example, if the user ID is SmithJ, then the password is reset to SmithJ as well.

**Note:** User IDs and passwords are case sensitive.

## To reset desktop passwords

- 1 In the Administration window, double-click the Agent/Supervisor Administration icon.

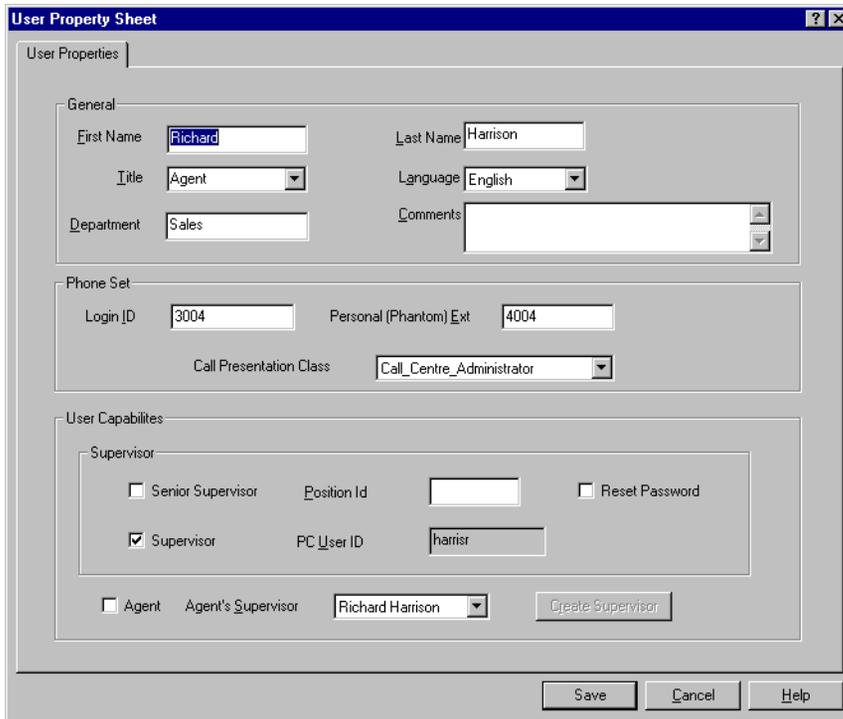
**Result:** The Agent/Supervisor Administration window appears.



- 2 Select the user whose desktop password you want to reset.

3 Choose File → Properties.

**Result:** The User Property Sheet appears.



4 Check Reset Password.

5 Click Save to return to the Agent/Supervisor Administration window.

**Result:** The following message appears:



6 Click OK.

**Result:** The user can now log on using the default password.

- 7 To return to the Administration window, choose File → Close.

## To reset the custadmin password

Only a system administrator can reset the password for the custadmin user ID. If you forget this password, contact your Nortel Networks distributor for support.

**Note:** If you attempt to log on with the custadmin user ID but cannot provide the correct password, you are locked out of the system after the third attempt. If this happens, contact your distributor for support.

# Changing desktop passwords

## Introduction

Follow the procedure in this section to change a desktop password. You should change the password from the one that the system assigns to a new user as soon as possible. Nortel Networks recommends changing passwords regularly for security reasons.

**Note:** User IDs and passwords are case sensitive.

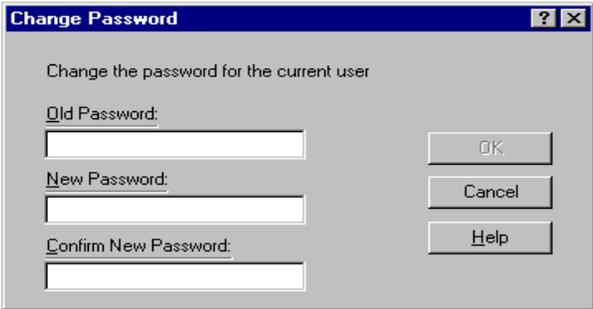
## To change desktop passwords

- 1 Log on to Symposium Express Call Center with the user ID of the user whose password you want to change.

**Result:** The Administration window appears.

- 2 Click Password.

**Result:** The Change Password dialog box appears.



The image shows a 'Change Password' dialog box with a blue title bar containing a question mark and a close button. The main area is light gray and contains the text 'Change the password for the current user'. Below this text are three text input fields: 'Old Password:', 'New Password:', and 'Confirm New Password:'. To the right of these fields are three buttons: 'OK', 'Cancel', and 'Help'.

- 3 In the Old Password box, type the existing password.
- 4 In the New Password box, type the new password.
- 5 In the Confirm New Password box, type the new password again.
- 6 Click OK.

**Result:** You return to the Administration window.

## Section B: Configuring users

### In this chapter

Overview	70
Adding supervisors	72
Adding agents	75
Changing user properties	78
Deleting users	79

# Overview

## Introduction

This section gives procedures for adding new agents and supervisors and modifying existing supervisors and agents.

## Reporting supervisors

Each agent must be assigned to a supervisor. The supervisor

- is notified when the agent presses the Emergency key
- has keys on his or her phoneset that are mapped to the agent keys

Supervisors can view all reporting agents on their real-time displays.

## Senior supervisors

Senior supervisors can view all real-time displays associated with supervisors, as well as view all call center operations under all supervisors.

## Supervisors and real-time displays

When supervisors view real-time displays, they can filter the displays to show all reporting agents, or only reporting agents who are logged on.

## Supervisors and reports

The agent performance and short calls reports are sorted by supervisor.

## **Agent roaming**

Supervisors are associated with a specific phoneset, which is specified in the position ID. Keys on the supervisor phonesets are programmed to allow supervisors to communicate with their agents. This means that supervisors must always log on to the same phoneset. Agents, however, can log on to any available phoneset.

# Adding supervisors

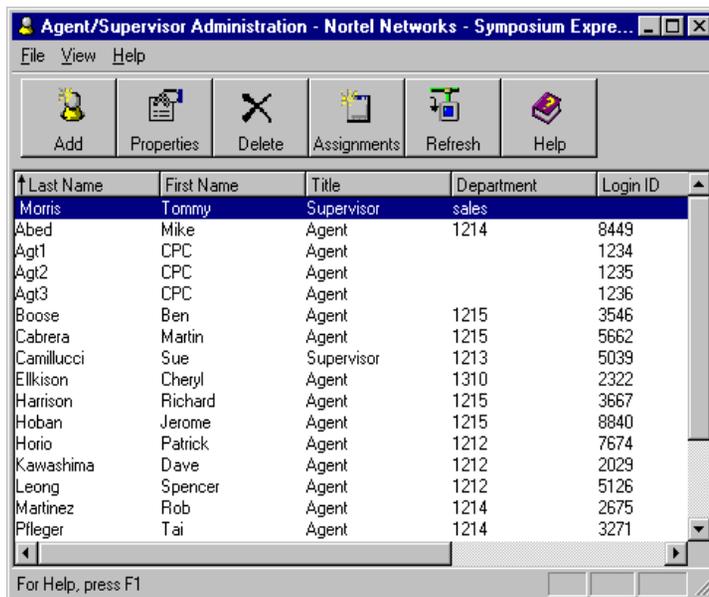
## Introduction

Follow the procedure in this section to add a supervisor or a senior supervisor user account to Symposium Express Call Center. You must add these accounts so that supervisors and senior supervisors can access the server.

## To add a supervisor or senior supervisor

- 1 In the Administration window, double-click the Agent/Supervisor Administration icon.

**Note:** The Agent/Supervisor Administration window appears.



- 2 Click Add.

**Result:** The User Property Sheet appears.

- 3 Complete the General section by entering information into the following boxes:

**First Name:** The supervisor's given name.

**Last Name:** The supervisor's family or surname.

**Title:** The supervisor's job title.

**Language:** The supervisor's preferred language.

**Department:** The name of the department with which the supervisor is associated.

**Comments:** Additional information about the supervisor. This box is optional.

- 4 Complete the Phone Set section by entering information into the following boxes:

**Login ID:** The four-digit number used to log on to the phoneset to take call center calls.

**Personal (Phantom) Ext:** The supervisor's personal extension (DN). This information is optional.

**Call Presentation Class:** How calls are presented to the supervisor. Choose a call presentation class from the drop-down list. For more information about call presentation classes, see Chapter 2, "Managing call presentation."

- 5 Complete the User Capabilities section by following these steps:
  - a. Check either the Senior Supervisor or the Supervisor box.
  - b. Enter the position ID and the PC user ID of the supervisor or senior supervisor.

**Note:** The default password is the same as the PC user ID. The system prompts the user to change this the first time he or she logs on.

- 6 Choose one of the following options:

- a. To add more users, click Apply.

**Result:** The user is added and the form resets, allowing you to add another user. Some of the boxes, including Title and Department, fill in automatically. You can change these values if necessary.

- b. To close the property page and return to the Agent/Supervisor Administration window, click OK.

**Note:** If you click Apply or OK before you complete the required boxes, the system prompts you to finish them.

**Result:** The new supervisor appears in the list in the Agent/Supervisor Administration window.

- 7 To return to the Administration window, choose File → Close.

# Adding agents

## Introduction

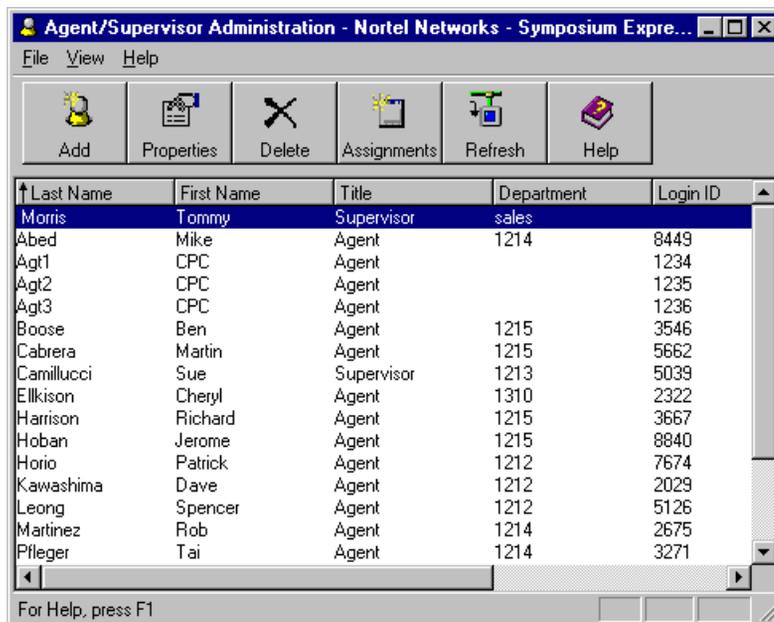
An agent receives incoming customer calls. When you add an agent account, you must define the following properties:

- the agent's phoneset information
- the agent's call presentation class
- the agent's supervisor

## To add an agent

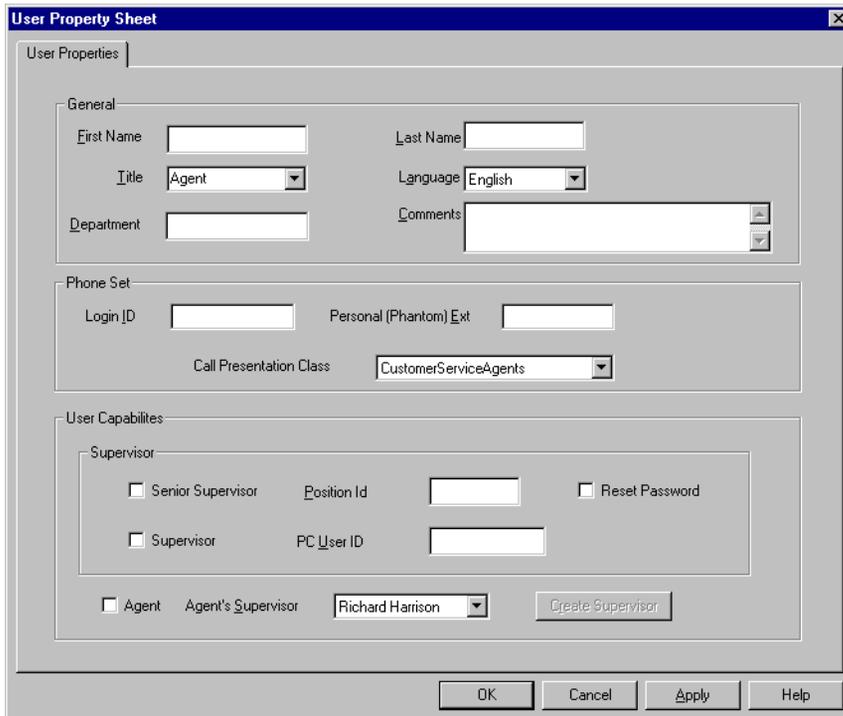
- 1 In the Administration window, double-click the Agent/Supervisor Administration icon.

**Result:** The Agent/Supervisor Administration window appears.



**2** Choose File → Add.

**Result:** The User Property Sheet appears.



The screenshot shows a dialog box titled "User Property Sheet" with a close button (X) in the top right corner. The dialog is divided into three main sections: "User Properties", "Phone Set", and "User Capabilities".

- User Properties:** Contains fields for "First Name", "Last Name", "Title" (a dropdown menu currently showing "Agent"), "Language" (a dropdown menu currently showing "English"), "Department", and "Comments" (a text area with a scroll bar).
- Phone Set:** Contains fields for "Login ID", "Personal (Phantom) Ext", and "Call Presentation Class" (a dropdown menu currently showing "CustomerServiceAgents").
- User Capabilities:** Contains a "Supervisor" section with checkboxes for "Senior Supervisor" and "Supervisor". It also has fields for "Position Id", "PC\_User ID", and "Agent's Supervisor" (a dropdown menu currently showing "Richard Harrison"). There is a "Reset Password" checkbox and a "Create Supervisor" button.

At the bottom of the dialog are four buttons: "OK", "Cancel", "Apply", and "Help".

**3** Complete the General section by entering information into the following boxes:

**First Name:** The agent's given name.

**Last Name:** The agent's family or surname.

**Title:** The agent's job title.

**Language:** The agent's preferred language.

**Department:** The name of the department with which the agent is associated.

**Comments:** Additional information about the agent. This box is optional.

**4** Complete the Phone Set section by entering information into the following boxes:

**Login ID:** The four-digit number that the agent uses to log on to the phoneset to take call center calls.

**Personal (Phantom) Ext:** The agent's personal extension (DN). This box is optional.

**Call Presentation Class:** How calls are presented to the agent. Choose a call presentation class from the drop-down list. For more information about call presentation classes, see Chapter 2, "Managing call presentation."

**5** Complete the User Capabilities section by following these steps:

- a. Check the Agent box.
- b. Select the supervisor to whom the agent reports.

**Note:** Agents do not have PC user IDs.

**Tip:** If the supervisor to whom this agent reports has not been created on the system yet, then you can create the supervisor now. To do so, click Create Supervisor.

**6** Choose one of the following options:

- a. To add more users, click Apply.

**Result:** The agent is added, and the form automatically resets, allowing you to add another agent. Some of the boxes, including Title and Department, fill in automatically. You can change these values if necessary.

- b. To close the property page and return to the Agent/Supervisor Administration window, click OK.

**Note:** If you click Apply or OK before you complete the required boxes, the system prompts you to finish them.

**Result:** The new agent appears in the list in the Agent/Supervisor Administration window.

**7** To return to the Administration window, choose File → Close.

# Changing user properties

## Introduction

Follow the procedure in this section to do the following tasks:

- Change a supervisor's or agent's name or personal information.
- Change a supervisor's or agent's logon ID or position ID.

## To change user properties

- 1 In the Administration window, double-click the Agent/Supervisor Administration icon.

**Result:** The Agent/Supervisor Administration window appears.

- 2 Select the user whose properties you want to change.
- 3 Choose File → Properties.

**Result:** The User Properties Sheet appears.

- 4 Make changes to the user's properties as required.
- 5 Click Save.

**Result:** You return to the Agent/Supervisor Administration window.

- 6 To return to the Administration window, choose File → Close.

# Deleting users

## Introduction

Follow the procedure in this section to delete a user account from Symposium Express Call Center.

## Before you begin

You cannot delete a supervisor who still has assigned agents. Before you can delete a supervisor account, you must perform either of the following tasks:

- Reassign the agents to another supervisor.
- Delete all of the agents who report to the supervisor.

## To delete a user

- 1 In the Administration window, double-click the Agent/Supervisor Administration icon.

**Result:** The Agent/Supervisor Administration window appears.

- 2 Select the user you want to delete.

- 3 Choose File → Delete.

**Result:** A dialog box asks you to confirm that you want to delete the user.

- 4 Click Yes to confirm the deletion.

**Result:** The user is deleted and you return to the Agent/Supervisor Administration window.

**Note:** If you are deleting a supervisor and any agents report to the supervisor, then a message states that the supervisor cannot be deleted.

- 5 To return to the Administration window, choose File → Close.



# Chapter 4

---

## Configuring skillsets

### In this chapter

Section A: Using skillsets	83
Section B: Adding and deleting skillsets	87
Section C: Configuring agent to skillset assignments	91



# Section A: Using skillsets

## In this section

About skillsets	84
Skill-based routing	86

# About skillsets

## Introduction

A skillset is a base of knowledge that applies to an agent or group of agents, which helps them effectively answer a specific type of call. Skillsets are the basic building blocks of skill-based routing. You use skillsets to match callers with the agents who can best meet their needs. Calls are routed to agents according to the skillsets to which the agents are assigned.

You must assign agents to specific skillsets, as well as set the agents' priority levels for the skillsets.

## Example

BestAir has several different skillsets:

- **Bookings:** Agents who can accept and change bookings, and provide schedule and rate information.
- **Shipping:** Agents who can arrange for the shipment of goods. Additional skillsets include agents who specialize in the shipment of perishable food products and hazardous goods, as well as international shipments.
- **Cargo Tracing:** Agents who specialize in the tracing of shipments and personal luggage.
- **BestAir Travel Club:** Agents who can provide information about BestAir Travel Club benefits and air miles.
- **Vacations:** Agents who can book vacation packages. Additional skillsets specialize in American, European, Asian, and Pacific vacations.

James Jones is a booking agent with BestAir. He is a member of the Bookings skillset. In internal courses, James has become familiar with the company's vacation package offerings. After completing the courses, he was assigned to the Vacations skillset. Through courses, travel, and constant reading, James has developed additional expertise in European travel issues. He is now also a member of both the Europe and the Vacations skillsets.

## Default skillset

Your distributor defines one skillset on the Symposium Express Call Center system as the default skillset. All agents are logged on to the default skillset. If no other skillset can handle the call, the default skillset ensures that it will be queued.

### Example

At BestAir Airlines, the default skillset is Bookings. If a call cannot be queued because there are no agents available in the skillset assigned to its CLID, DNIS, or CDN, the call is automatically presented to an agent in the Bookings skillset.

For more information, contact your distributor.

# Skill-based routing

## Introduction

Skill-based routing allows you to present calls to the agents with the expertise required to help the caller.

## Example

Sandra Smith wants to book a vacation to Britain. She has called several airlines to obtain

- schedule and fare information
- a British Rail pass
- a list of hotels and bed and breakfasts in the cities she is planning to visit
- information about tour packages

All of the airlines provided Sandra with schedules and fares, but most were not able to give her the other information she wanted. The airlines referred her to the British embassy.

However, when Sandra called BestAir, her call was directed to the Europe skillset. James Jones was able to give Sandra information about the British Rail pass. He also sent her the British Rail information, a list of bed and breakfasts, and a description of the tour packages that are available.

## Section B: Adding and deleting skillsets

### In this section

Adding skillsets	88
Deleting skillsets	90

# Adding skillsets

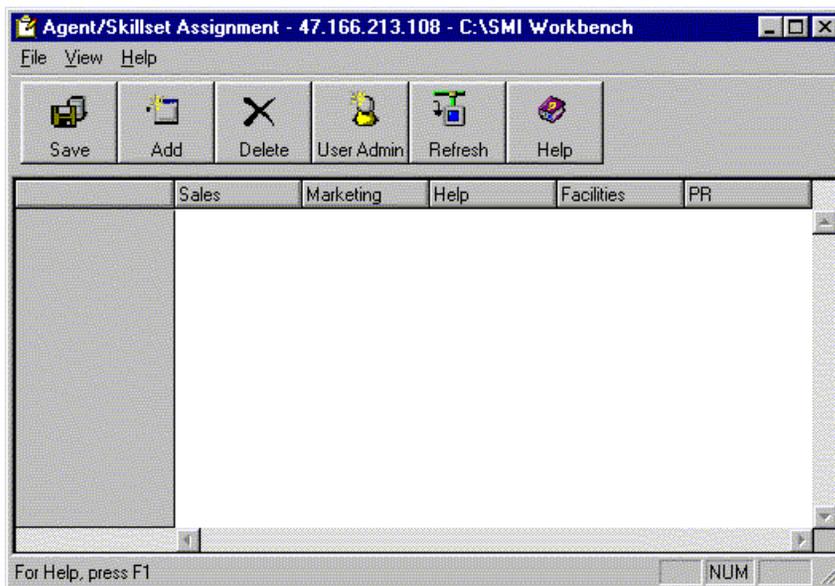
## Introduction

Follow the procedure in this section to add a new skillset to Symposium Express Call Center.

## To add skillsets

- 1 In the Administration window, double-click the Agent/Skillset Assignment icon.

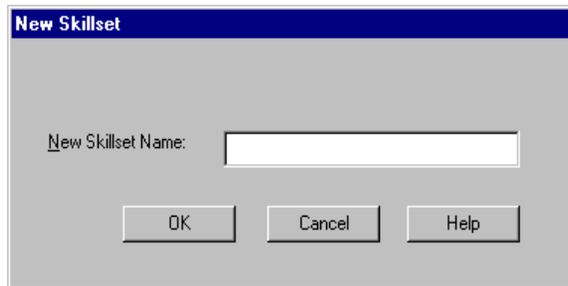
**Result:** The Agent/Skillset Assignment window opens.



**Note:** You can also launch the Agent/Skillset Assignment window from the Agent/Supervisor Administration window by clicking Assignments.

- 2 Choose File → Add Skillset.

**Result:** The New Skillset dialog box appears.



- 3 Enter the name of the new skillset.

**Note:** The skillset name can include a–z, A–Z, 0–9, spaces, and underscores. However, the name must be unique, and the first character cannot be a number. The name must not include any of the reserved words shown in Appendix C, “Reserved words list.”

- 4 Click OK.

**Result:** The skillset appears in the list in the Agent/Skillset Assignment window. No agents are assigned to the skillset yet. For more information, see “Configuring agent to skillset assignments” on page 94.

# Deleting skillsets

## Introduction

Before you can delete a skillset, you must ensure the following:

- The skillset is not used in any call routing.
- The skillset is not assigned to any agents. To remove agents from the skillset, you must either set the agents' priority for the skillset to 0 or delete the agent user IDs. For more information, see “Changing skillset assignments” on page 93 and “To delete a user” on page 79.

If you attempt to delete a skillset that does not meet these requirements, then you get an error message.

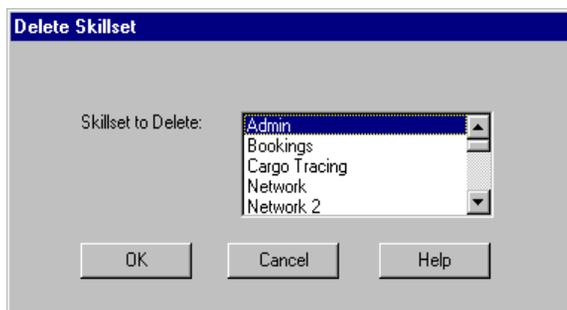
## To delete skillsets

- 1 In the Administration window, double-click the Agent/Skillset Assignments icon.

**Result:** The Agent/Skillset Assignment window opens.

- 2 Choose File → Delete Skillset.

**Result:** The Delete Skillset dialog box appears.



- 3 Select the skillset that you want to delete.
- 4 Click OK.

**Result:** The skillset disappears from the Agent/Skillset Assignment window.

# Section C: Configuring agent to skillset assignments

## In this chapter

Overview	92
Configuring agent to skillset assignments	94

# Overview

## Introduction

When you first create a skillset, there are no agents assigned to it. You must create agent to skillset assignments so calls can be directed to the right agents. Each agent has a priority level for each skillset. You can assign agents to one or more skillsets.

## Skillset priority

The skillset priority determines which call is presented to an agent first. If calls are queued for two or more of the skillsets to which an agent belongs, then the system checks the skillset priority for the agent to determine which call to present first.

Symposium Express Call Center provides four levels of skillset priority: 1 is the highest level and 4 is the lowest level. If an agent has a priority of 0 for a skillset, then the agent is not assigned to that skillset.

### Example

James Jones is a member of three skillsets: Bookings, Vacations, and Europe. He is one of only two agents who can answer calls about European vacations. The Vacations skillset contains 8 agents, and the Bookings skillset contains 20 agents.

Since there are so few agents who can answer questions about European travel, when James was assigned to the Europe skillset, the skillset was assigned a priority of 1. There are more agents to answer questions about vacations, so the Vacations skillset is assigned a priority of 2. Since many agents can help with bookings, the Bookings skillset has the lowest priority for James—3.

When James finishes talking to Sandra, four calls are queued: two in the Bookings skillset, one in the Vacations skillset, and one in the Europe skillset. Since the Europe skillset has the highest priority, the call queued to that skillset is presented to James.

## Changing skillset assignments

You assign and change agent to skillset assignments and priority levels on the Agent/Skillset Assignment window.

You may need to temporarily assign agents to different skillsets for the following reasons:

- for early morning and late evening shifts, when few agents are available
- to cover other agents' coffee and lunch breaks
- to cover agents who are sick, on vacation, or on a course

### Example

Mark Schultz, an agent in BestAir's Cargo Tracing skillset, is off sick. This has left the skillset understaffed, particularly from 10:00 a.m. to 4:00 p.m., the skillset's busiest time. For that period, the call center manager decides to temporarily assign Rose Stefanopolis (who has worked in this skillset before) to the Cargo Tracing skillset. When Mark returns, Rose is removed from the skillset.

To change agent to skillset assignments, follow the procedure "Configuring agent to skillset assignments" on page 94.

# Configuring agent to skillset assignments

## Introduction

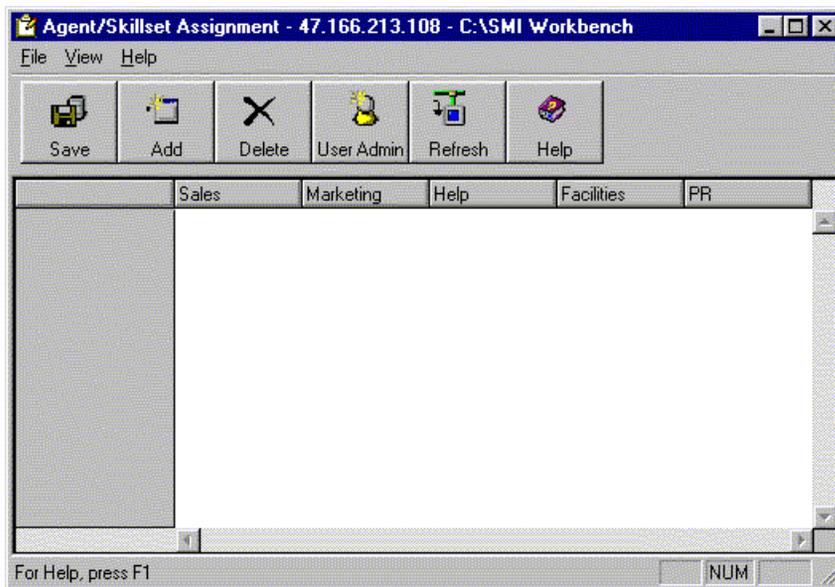
Follow the procedure in this section to do the following:

- Add agents to skillsets.
- Remove agents from skillsets.
- Change an agent's priority for a skillset.

## To add or change agent to skillset assignments

- 1 In the Administration window, double-click Agent/Skillset Assignments.

**Result:** The Agent/Skillset Assignment window appears. The window shows the skillsets to which each agent is assigned, and the agent's priority for that skillset.



2 Click in the intersecting point for the Agent/Skillset Assignment priority level.

3 Enter a priority from 1 to 4, where 1 is the highest priority.

**Note:** The default value is 0, which means that the agent is not assigned to the skillset.

Repeat this step for each priority you want to change.

**Tip:** Press Tab to advance to the next skillset.

4 Choose File → Save.

**Result:** A dialog box appears confirming that you have saved the setting. The changes that you made take effect immediately.

5 To return to the Administration window, choose File → Close.



# Chapter 5

---

## Configuring Voice Services

### In this chapter

Overview	98
Types of Voice Services treatments	99
Configuring a transfer to a DN treatment	103
Configuring a comfort message treatment	106
Configuring a prompt/collect digits treatment	110
Configuring a voice menu treatment	121
Configuring additional Voice Menu treatments	126
Using prompt/collect digits treatments	130

# Overview

## Introduction

This chapter provides information on

- the different types of Voice Services treatments
- configuring the Voice Services treatments
- configuring additional treatments
- using the prompt/collect digits treatment

If you are using Voice Services treatments, you configure the Voice Services treatments before you configure call treatments. For more information on configuring call treatments, see Chapter 6, “Configuring call treatments and call routing” on page 135.

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

# Types of Voice Services treatments

## Introduction

This section describes the four different types of Voice Services treatments:

- transfer to a DN
- comfort message
- prompt/collect digits
- voice menu

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

## Transfer to a DN

The transfer to a DN Voice Services treatment transfers the call to a preselected DN.

## Comfort message

The comfort message Voice Services treatments are the announcements that play to callers while they wait for an agent. These announcements assure the callers that they are still in the queue and that their calls will be attended to as soon as possible.

### Example

*“Thank you for calling the University of XYZ. All operators are busy. We apologize for the delay in handling your call. An operator will be with you shortly.”*

## Prompt/Collect Digits

**ATTENTION**

---

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

You can use the Prompt/Collect Digits Voice Services treatment to collect single or multiple sets of digits from the caller.

**Example**

*“Thank you for calling the Bank of XYZ. Please enter your account number, followed by the # sign.”*

The Prompt/Collect Digits treatment can continue prompting the caller to enter further sets of digits. For example, having entered the account number, the caller may be requested to enter a customer number or an invoice number.

**Example**

*“Thank you for your account number. Please enter your customer number, followed by the # sign.”*

**Note:** This is a Symposium Express Call Center keycode-enabled feature. To use this feature, you must have Symposium TAPI Service provider and Symposium Agent installed, or another agent software that is compatible with Symposium TAPI Service provider.

You can use prompt/collect digits treatments to

- collect multiple digits from the caller and send this information to a TAPI server to enable a data screen pop (for example, using Symposium Agent software)
- enable verification of digits entered through playback of collected digits; callers can reenter digits if necessary
- integrate prompt/collect digits treatments into existing voice services treatments (for example, include a prompt/collect digits treatment as a node in an existing voice menu)
- use prompt/collect digit treatments as greeting announcements as part of a call treatment

## Verification prompts

You can configure prompt/collect digits treatments with the verify option for pre- and post-verification prompts to be recorded, which are used in verification announcements. For example, a pre-verification prompt might be

*Your account number is ....*

*Press any key if this is correct* is an example of a post-verification prompt.

## Multiple digit collection

The prompt /collect digits treatment can prompt the caller to enter multiple sets of digits if you set up multiple-digit collection (that is, groups of several prompt/collect digits treatments). This is done by adding a prompt/collect digit treatment as an after-treatment to an existing prompt/collect digits treatment. In this case, the collected digits from the second (and any subsequent) treatment are added to the first set and sent to TAPI only after the final prompt/collect digit after-treatment.

In multiple-digit collection, each digit stream is separated by a colon (:).

## Example

In a sequence of two call treatments, both Treatment 1 and Treatment 2 are prompt/collect digits treatments. Treatment 1 collects the customer number, and the customer enters digits 1234. Treatment 2 collects the customer's account number 565656. Treatment 2 has an after-treatment that transfers the call to CDN 4000. In this example, the stream (1234:565656) is sent to TAPI after Treatment 2 completes. The call is then transferred to CDN 4000 as an after-treatment for Treatment 2.

## Prompt/collect digits limits

The maximum number of digits that can be collected by Voice Services and sent to TAPI is set at 120.

This value also includes any colon values in multiple-digit collection. For example, the following stream, containing seven digits and three separators, is considered ten digits in total: 12:34:56:7.

There is no limitation on the number of prompt/collect digit chains (that is, a group of prompt/collect digit treatments with prompt/collect digit after-treatments) that can be specified. This is to allow maximum flexibility. The total maximum collection (including separator colons) must not exceed 120 digits.

**Note:** Voice Services digits prompts must be recorded before configuring prompt/collect digits treatments. See “To configure digit voice prompts” on page 110.

For information on using prompt/collect digits treatments, see “Using prompt/collect digits treatments” on page 130.

## Voice menu

A voice menu offers callers choices. When a call arrives at a voice menu, a courteous greeting is played followed by a list of options and the corresponding key that the caller must press to make a selection.

### Example

*“Thank you for calling the University of XYZ. To find out how to register for classes, press 1. For our part-time programs, press 2. To speak with the student registrar, press 3, or press # to repeat this message.”*

Callers make a choice by pressing the appropriate number on their telephone keypads. This means, of course, that callers require a DTMF (touchtone) phone to use a voice menu.

## Designing the Voice Services treatments system

Before you configure any Voice Services treatments, you must decide

- what your call center Voice Services requirements are
- what Voice Services treatments need to be configured to meet your call center requirements
- how to structure the Voice Services treatments to meet your requirements

The Symposium Express Call Center Voice Services feature is extremely flexible. You can decide to have one single treatment only, or you can have a multi-layered system using a combination of all types of Voice Services treatments operating at different levels.

To see a sample call flow diagram that illustrates a typical call flow and associated Voice Services treatments for the call, see “Call-flow examples” on page 241.

# Configuring a transfer to a DN treatment

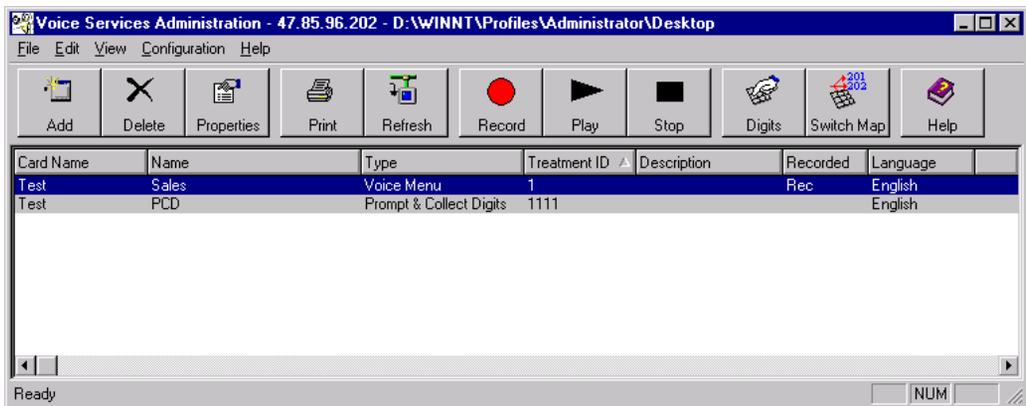
## Introduction

Use this procedure to configure a transfer to a DN Voice Services treatment.

## To configure a transfer to a DN treatment

- 1 In the Symposium Express Call Center Administration window, double-click Voice Services Administration.

**Result:** The Voice Services Administration window appears.



**2** Click Add.

**Result:** The Properties - Treatment dialog box appears.

**Properties - Treatment**

General Properties

Treatment ID: 1000

Name: TransferCall

Location: [ ] Browse

Card Name: Test Language: English

Description: Transfers caller to Express CDN

Recorded:

Type

Transfer to ==> DN 4444 [Rec] [Play]

Comfort Message

Prompt/Collect Digits  Verify...

Voice Menu  SECC Controlled [Stop]

Timeout Behavior

Repeat: 0 First Digit Timeout: 3

Default DN 0

Return To Queue

After Treatment

Treatment Type: <none>

[OK] [Cancel] [Apply]

**3** Enter a Treatment ID. This number is used to identify the treatment in the Call Routing wizard. Each treatment must have a unique treatment ID.

**4** Enter a name for the treatment. Note that this is just a descriptive name.

**5** Select the Card Name and Language from the drop-down lists, and then enter a description of the treatment.

In the Language box, select the language in which the treatment has been recorded.

**6** Enter a description of the treatment (optional).

**7** In the Type section, select Transfer to .... DN.

**8** Enter the DN number.

**9** Click Apply.

This completes the transfer to a DN treatment procedure.

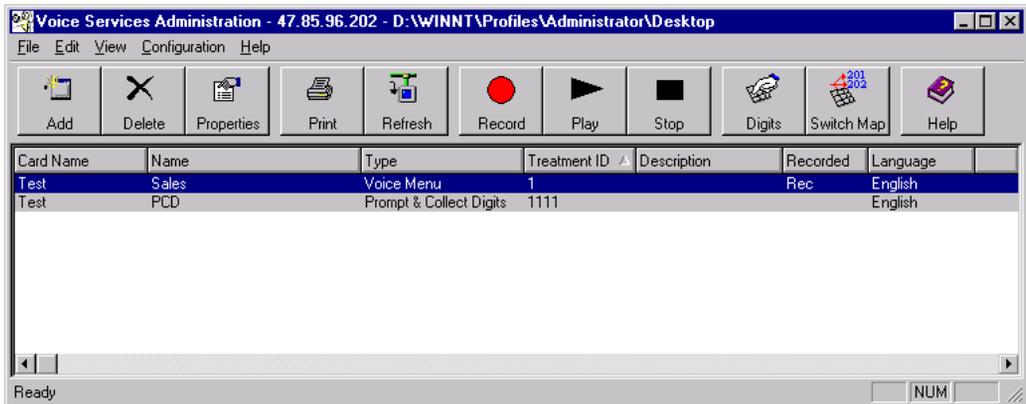
# Configuring a comfort message treatment

Use this procedure to configure a comfort message Voice Services treatment.

## To configure a comfort message treatment

- 1 In the Symposium Express Call Center Administration window, double-click Voice Services Administration.

**Result:** The Voice Services Administration window appears.



2 Click Add.

**Result:** The Properties - Treatment dialog box appears.

**Properties - Treatment**

General Properties

Treatment ID: 1000

Name: Comfort

Location: /A:/dir/123.sbc Browse

Card Name: Test Language: English

Description: Greeting Announcement

Recorded:

Type

Transfer to =====> DN Rec Play

Comfort Message Stop

Prompt/Collect Digits Verify...

Voice Menu SECC Controlled

Timeout Behavior

Repeat: 0 First Digit Timeout: 3

Default DN 0

Return To Queue

After Treatment

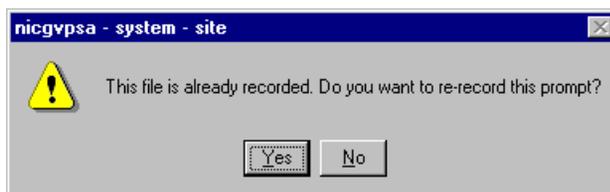
Treatment Type: <none>

OK Cancel Apply

- 3 Enter a Treatment ID. This number is used to identify the treatment in the Call Routing wizard. Each treatment must have a unique treatment ID.
- 4 Enter a name for the treatment. Note that this is just a descriptive name. The actual filename is entered in the Location box.
- 5 Type the location where you want to store the treatment (the SBC file), or click Browse to open a browse dialog box.
- 6 Navigate to the location where you want to store the treatment. The file must be stored on a PCMCIA card. The following rules apply to the file name you must enter here:
  - The file name can contain only digits 0–9 and the characters A–F.

- The file name cannot begin with the digit 0.
  - The file name can have a maximum of eight characters (plus extension).
  - The file name must end in the extension .sbc.
  - The format of the location must be */X:/filename.sbc*, where *X* is the drive of the PCMCIA card you are using to store the treatment.
- 7 Select the Card Name and Language from the drop-down lists, and then enter a description of the treatment.
- In the Language box, select the language in which the treatment has been recorded.
- 8 Enter a description of the treatment (optional).
- 9 In the Type section, select Comfort Message.
- 10 If you want to configure an after-treatment to this Comfort Message treatment, in the After Treatment section, select a Treatment Type from the list.
- 11 Click Apply.
- 12 Click Record.

**Result:** If the prompt has already been recorded, the following dialog box appears:



If you want to rerecord the prompt, click Yes.

**Result:** The DN number dialog box appears.



- 13 Enter the DN of the phone you want to use to record the message, and then click OK.

**Result:** The phone rings.

- 14 Answer the phone.

**Result:** Recording begins as soon as the phone is answered.

- 15 Record your message.

- 16 When you finish recording your message, hang up.

- 17 To replay your message, click Play.

**Result:** The DN number dialog box appears.

- 18 Enter the DN of the phone you want to use to play the message, and then click OK.

**Result:** The phone rings.

- 19 Answer the phone. Listen to the playback.

**Result:** The phone is disconnected as soon as the playback ends

- 20 Click Cancel to exit.

**Result:** The Properties - Treatment dialog box closes.

This completes the Comfort Message treatment procedure.

# Configuring a prompt/collect digits treatment

## Introduction

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

Use this procedure to configure a prompt/collect digits Voice Services treatment. If you intend to use verification prompts in the prompt/collect digits treatment (see “Verification prompts” on page 101), you must configure digit voice prompts before configuring the prompt/collect digits treatment.

## To configure digit voice prompts

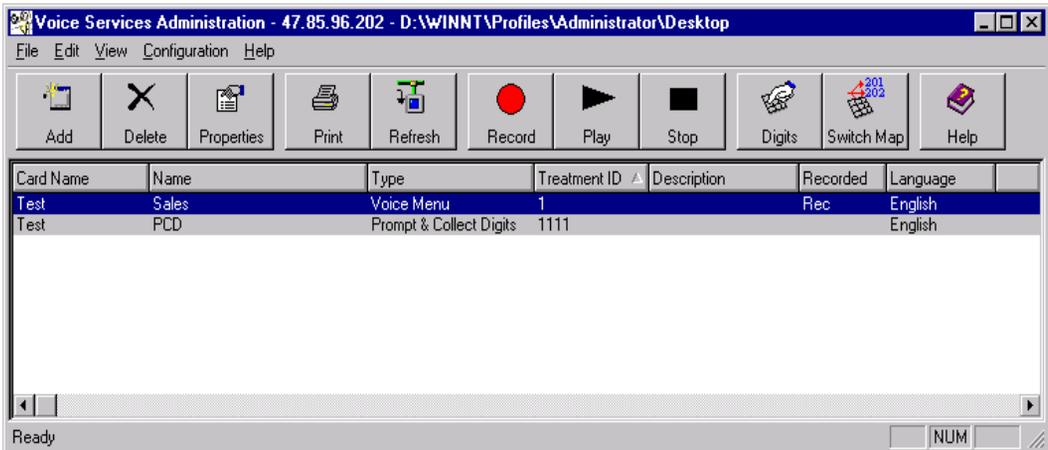
### Notes:

- This procedure is relevant only if you intend to use the verification option in a prompt/collect digits treatment. If you do not intend to use the verification option, proceed to “To configure a prompt/collect digits treatment” on page 114.
- If you configure prompt/collect digits treatments without the verification option, and later decide to configure the verification prompt, remember to first configure the digit voice prompts.

Before configuring prompt/collect digits treatments, you must record new voice prompts (in the form of SBC files) for each digit 0–9. These prompts are played to callers after they select the terminate key during digit collection.

- 1 In the Symposium Express Call Center SMI Workbench Administration window, double-click Voice Services Administration.

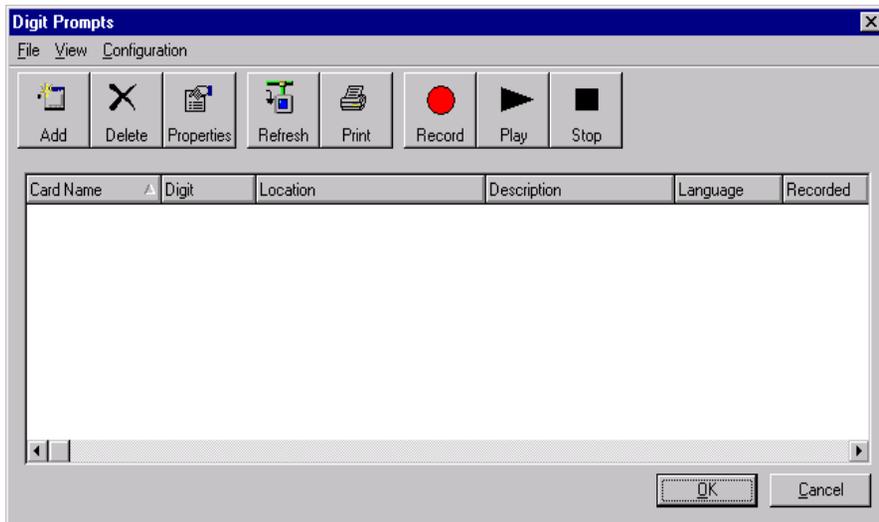
**Result:** The Voice Services Administration window appears.



## 2 Click Digits.

**Note:** The Digits button does not appear unless you have purchased the Prompt/Collect Digits keycode feature. The Prompt/Collect Digits feature will only be available in a future release of Symposium Express Call Center.

**Result:** The Digit Prompts window appears.

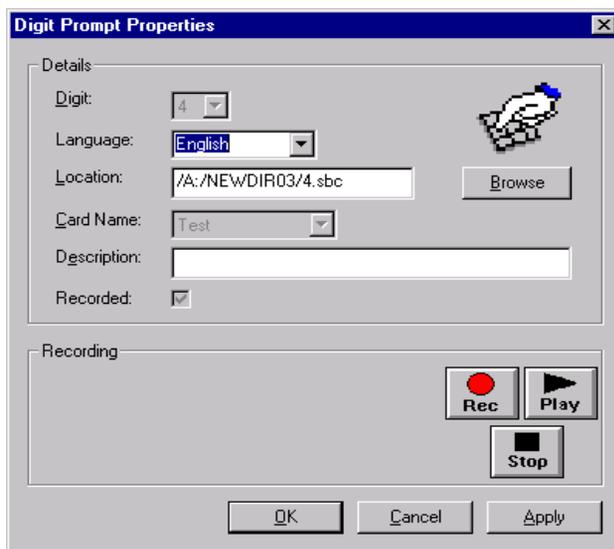


- 3 Add and record a new SBC file for each digit (0–9) as follows:

**Note:** The verify option can be enabled or disabled in the Properties-Treatment dialog box. See “To configure verification prompts” on page 119.

- a. Click Add.

**Result:** The Digit Prompt Properties window appears.



- b. Fill in the following boxes:

**Digit:** Enter the digit you are recording.

**Language:** Enter the language in which you are recording.

**Note:** The language you select in the Digit Prompt Properties dialog box above determines the language in which digits are replayed to the caller during digit verification.

**Location:** Enter the location where you want to store the treatment (it must be stored on a PCMCIA card), or click Browse to open a browse dialog box, and then navigate to the location where you want to store the treatment.

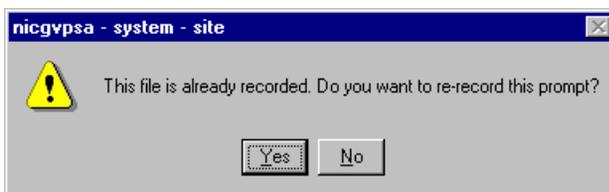
**Note:** Store the SBC files in a safe location to prevent deletion. Nortel Networks recommends that you store them in a folder called Digits on the PCMCIA card.

**Card Name:** Enter the Voice Services card name.

**Description:** Enter a description of what you are recording. This box is optional.

- c. Click Apply.
- d. Click Record.

**Result:** If the digit has already been recorded, the following dialog box appears:



If you want to rerecord the digit, click Yes.

**Result:** The DN number dialog box appears.



- e. Enter the DN of the phone you want to use to record the digit, and then click OK.

**Result:** The phone rings.

- f. Answer the phone. Recording begins as soon as the phone is answered.

- g.** Record the digit.  
For example, to record zero, say zero to record it. To record the digit 2, say 2.
- h.** When you finish recording your message, hang up.
- i.** To replay the digit, click Play.  
**Result:** The DN number dialog box appears.
- j.** Enter the DN of the phone you want to use to play the message, and then click OK.
- k.** The phone rings.
- l.** Answer the phone and listen to the playback. After the playback, the phone is disconnected.
- m.** Repeat steps a to l for all ten digits (0–9).

This completes the digit voice prompts procedure. To configure prompt/collect digits treatments, continue with “To configure a prompt/collect digits treatment” below.

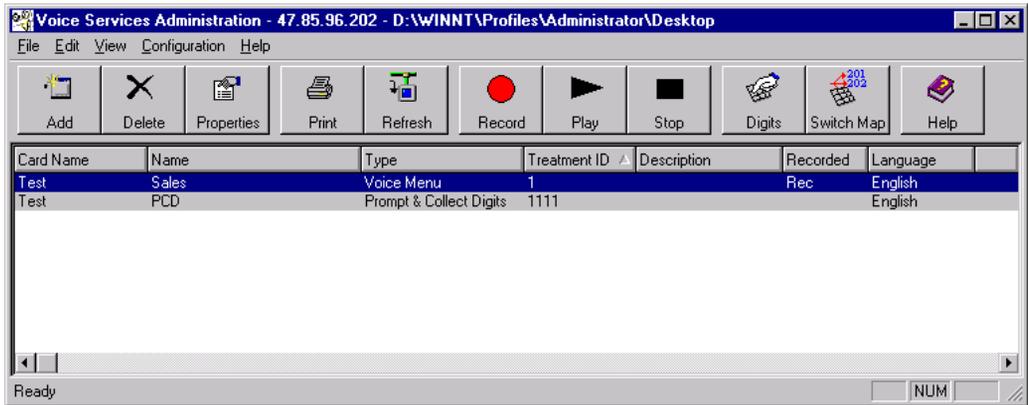
## To configure a prompt/collect digits treatment

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

If you intend to use the verification option, you must first configure digit voice prompts. For more information, see “To configure digit voice prompts” on page 110.

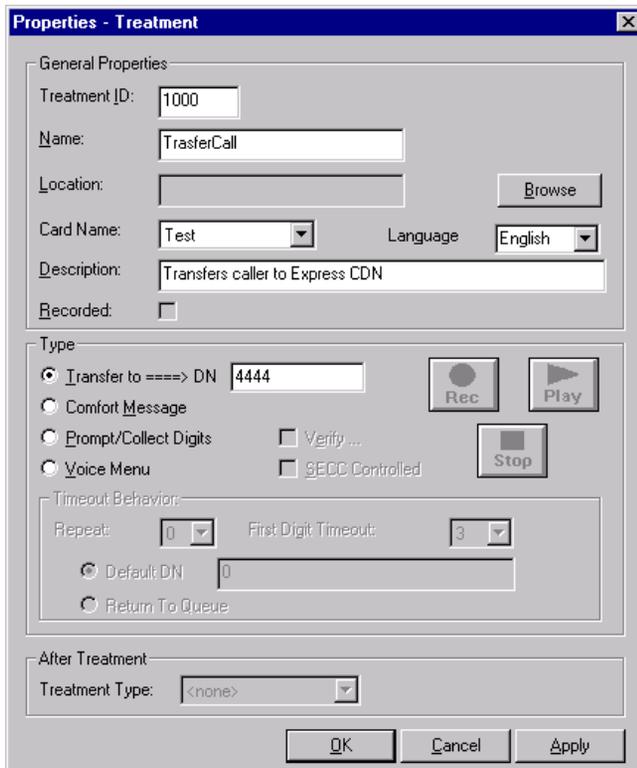
- 1** In the Symposium Express Call Center Administration window, double-click Voice Services Administration.

**Result:** The Voice Services Administration window appears.



2 Click Add.

**Result:** The Properties - Treatment dialog box appears.



- 3 Enter a Treatment ID. This number is used to identify the treatment in the Call Routing wizard. Each treatment must have a unique treatment ID.
- 4 Enter a name for the treatment. Note that this is just a descriptive name. The actual filename is entered in the Location box.
- 5 Type the location where you want to store the treatment (the SBC file), or click Browse to open a browse dialog box.
- 6 Navigate to the location where you want to store the treatment. The file must be stored on a PCMCIA card. The following rules apply to the file name you must enter here:
  - The file name can contain only digits 0–9 and the characters A–F.
  - The file name cannot begin with the digit 0.
  - The file name can have a maximum of eight characters (plus extension).
  - The file name must end in the extension .sbc.
  - The format of the location must be */X:/filename.sbc*, where *X* is the drive of the PCMCIA card you are using to store the treatment.
- 7 Select the Card Name and Language from the drop-down lists, and then enter a description of the treatment.

In the Language box, select the language in which the treatment has been recorded.
- 8 Enter a description of the treatment (optional).
- 9 In the Type section, select the Prompt/Collect Digits type of call treatment.
- 10 To configure verification prompts, check the Verify box.

**Note:** To use the verify option, you must first have configured digit voice prompts. For more information, see “To configure digit voice prompts” on page 110.
- 11 In the Timeout Behavior section, do the following:
  - a. Enter a value in the Repeat box. This is the number of times the prompt/collect digits treatment is repeated if no response is given by the caller.
  - b. Enter a value in the First Digit Timeout box. This is the time in seconds that must elapse without any digit entry before repeating the treatment.
- 12 Select Default DN, and then enter a valid DN number.

The call is transferred to this number when there are no timeouts remaining.

If you want the Prompt/Collect digit treatment to be configured as part of another Symposium Express Voice Services treatment (that is, used as a Greeting announcement in a Symposium Express call treatment), the SECC Controlled options should be checked ON. This enables the Return To Queue default option. If you want the call to return to the queue, set this option to ON in preference to a Default DN.

**13** In the After Treatment section, select a Treatment Type:

- Transfer to
- Comfort Message
- Prompt/Collect Digits
- Voice Menu

**14** Click Apply.

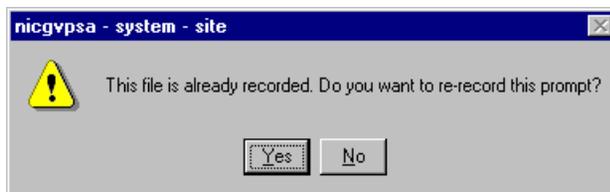
**15** Click Record.

**16** Record the opening treatment message.

### Example

*Please enter your account number and terminate with the # sign.*

**Result:** If the prompt has already been recorded, the following dialog box appears:



If you want to rerecord the prompt, click Yes.

**Result:** The DN number dialog box appears.



- 17 Enter the DN of the phone you want to use to record the message, and then click OK.

**Result:** The phone rings.

- 18 Answer the phone.

**Result:** Recording begins as soon as the phone is answered.

- 19 Record the opening treatment message.

**Example**

*Please enter your account number and terminate with the # sign.*

**20** When you finish recording your message, hang up.

**21** To replay your message, click Play.

**Result:** The DN number dialog box appears.

**22** Enter the DN of the phone you want to use to play the message, and then click OK.

**Result:** The phone rings.

**23** Answer the phone. Listen to the playback.

**Result:** The phone is disconnected as soon as the playback ends.

**24** Click Cancel to exit.

**Result:** The Properties - Treatment dialog box closes.

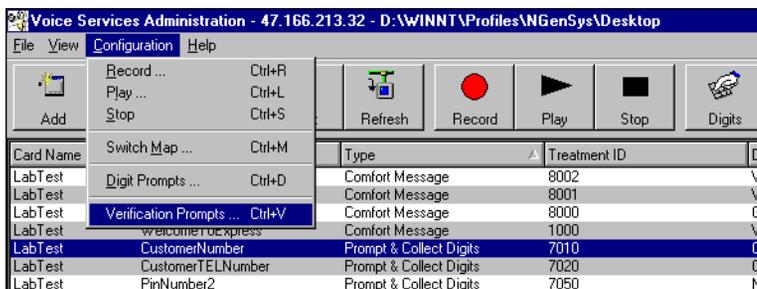
This completes the prompt/collect digits treatment procedure. If you want to configure verification prompts (if you checked the Verify box in the Properties Treatment dialog box at step 10 on page 10), complete the next procedure, “To configure verification prompts.”

**To configure verification prompts**

**1** To configure the verification prompts, return to the Voice Services Administration window.

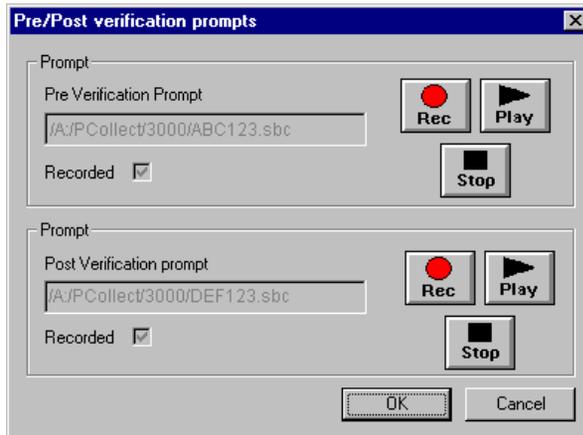
In the Administration window, double-click the Voice Services Administration icon.

**Result:** The Voice Services Administration dialog box opens.



- 2 From the menu, select Configuration → Verification Prompts.
- 3 In the Configuration menu, select Verification Prompts.

**Result:** The Pre/Post verification prompts dialog box opens.



**Note:** The names of the prompts and the locations where they are stored are automatically generated and cannot be modified.

**Note:** Verification prompts are optional. You can choose to record either or both a pre- and post-verification prompt, or none at all.

- 4 In the Pre Verification Prompt section, click Record to record the prompt.
- 5 Click Stop to finish the recording.
- 6 In the Post Verification Prompt section, click Record to record the prompt.
- 7 Click Stop to finish the recording.
- 8 Click Play to play back the recording.
- 9 Click OK.

This completes the configure verification prompts procedure.

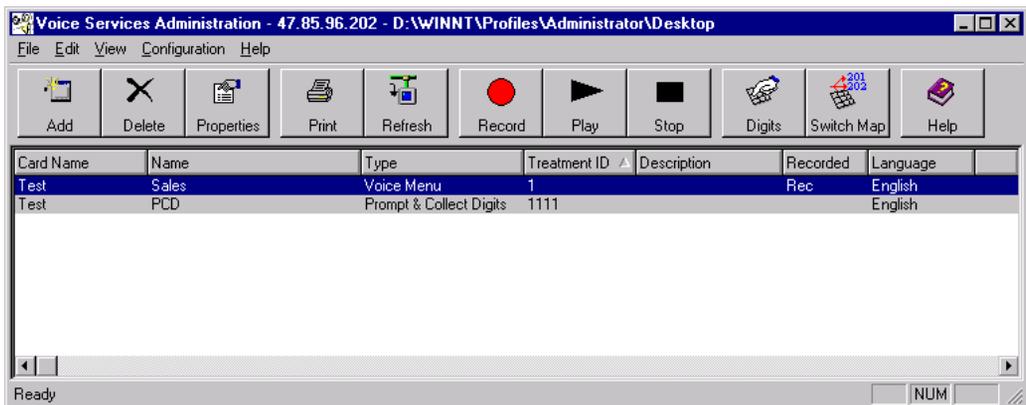
# Configuring a voice menu treatment

Use this procedure to configure a voice menu Voice Services treatment.

## To configure a voice menu treatment

- 1 In the Symposium Express Call Center Administration window, double-click Voice Services Administration.

**Result:** The Voice Services Administration window appears.



**2** Click Add.

**Result:** The Properties - Treatment dialog box appears.

**Properties - Treatment**

General Properties

Treatment ID: 3000

Name: Voice Menu

Location: /A:/vm/123.sbc

Card Name: Test Language: English

Description: Department voice menu

Recorded:

Type

Transfer to =====> DN

Comfort Message

Prompt/Collect Digits  Verify...

Voice Menu  SECC Controlled

Timeout Behavior:

Repeat: 2 First Digit Timeout: 5

Default DN 0

Return To Queue

After Treatment

Treatment Type: <none>

- 3** Enter a Treatment ID. This number is used to identify the treatment in the Call Routing wizard. Each treatment must have a unique treatment ID.
- 4** Enter a name for the treatment. Note that this is just a descriptive name. The actual filename is entered in the Location box.
- 5** Type the location where you want to store the treatment (the SBC file), or click Browse to open a browse dialog box.
- 6** Navigate to the location where you want to store the treatment. The file must be stored on a PCMCIA card. The following rules apply to the file name you must enter here:
  - The file name can contain only digits 0–9 and the characters A–F.

- The file name cannot begin with the digit 0.
  - The file name can have a maximum of eight characters (plus extension).
  - The file name must end in the extension .sbc.
  - The format of the location must be */X:/filename.sbc*, where *X* is the drive of the PCMCIA card you are using to store the treatment.
- 7 Select the Card Name and Language from the drop-down lists, and then enter a description of the treatment.

In the Language box, select the language in which the treatment has been recorded.

- 8 Enter a description of the treatment (optional).
- 9 In the Type section, select the Voice Menu type of call treatment.
- 10 Decide if this treatment is to be SECC Controlled (that is, controlled by Symposium Express Call Center).

**Note:** If it is SECC Controlled, it can be referenced by an Express call treatment when you configure call routing (see “Configuring call treatments and call routing” on page 135). The Voice Menu treatment can be added as a greeting or a wait announcement in the course of configuring call routing.

The Return to Queue option is only available if the treatment is SECC Controlled.

- 11 In the Timeout Behavior section, do the following:
- a. Enter a value in the Repeat box. This is the number of times the voice menu treatment is repeated if no response is given by the caller.
  - b. Enter a value in the First Digit Timeout box. This is the time in seconds that must elapse without any digit entry before repeating the treatment.
- 12 Select Default DN, and then enter a valid DN number.

The call will be transferred to this number when there are no timeouts remaining.

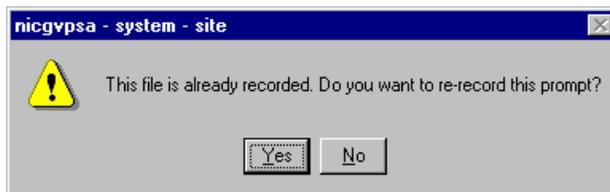
If you want the voice menu treatment to be referenced by another Symposium Express Voice Services treatment (that is, used as a Greeting announcement in a Symposium Express call treatment), the SECC Controlled options should be checked ON. This enables the Return To Queue default option. If you want the call to return to the queue, set this option to ON instead of enabling a Default DN.

- 13 Click Apply.  
**Result:** The treatment is saved to the database.
- 14 Click Record.
- 15 Record the opening treatment message.

**Example**

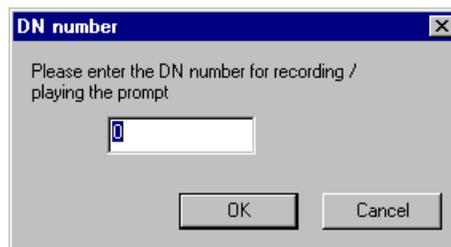
*Welcome to XYZ Computers. Press 1 for Sales.*

**Result:** If the prompt has already been recorded, the following dialog box appears:



If you want to rerecord the prompt, click Yes.

**Result:** The DN number dialog box appears.



- 16 Enter the DN of the phone you want to use to record the message, and then click OK.  
**Result:** The phone rings.
- 17 Answer the phone.  
**Result:** Recording begins as soon as the phone is answered.
- 18 Record the opening treatment message.

**Example**

*Please enter your account number and terminate with a # sign.*

**19** When you finish recording your message, hang up.

**20** To replay your message, click Play.

**Result:** The DN number dialog box appears.

**21** Enter the DN of the phone you want to use to play the message, and then click OK.

**Result:** The phone rings.

**22** Answer the phone. Listen to the playback.

**Result:** The phone is disconnected as soon as the playback ends.

**23** Click Cancel to exit.

**Result:** The Properties - Treatment dialog box closes.

This completes the voice menu treatment procedure.

# Configuring additional Voice Menu treatments

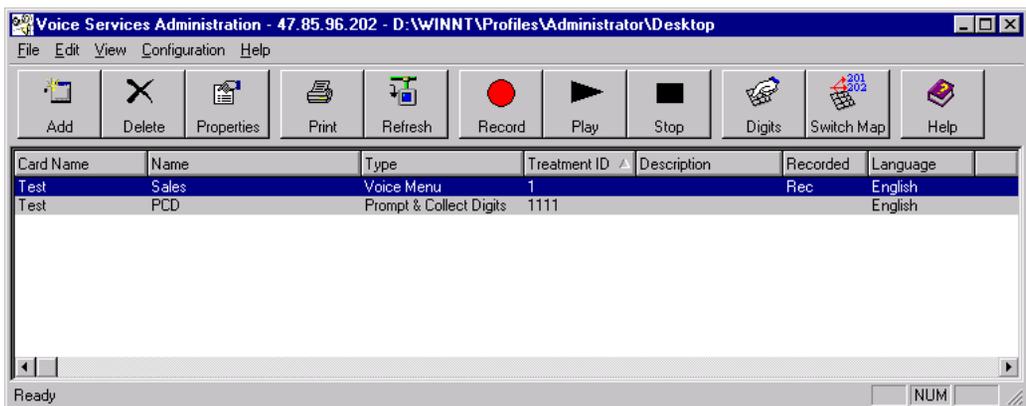
## Introduction

This section describes how to configure further Voice Menu treatments if you want to build up your Voice Menu treatments into a multi-layered system.

## To configure additional Voice Menu treatments

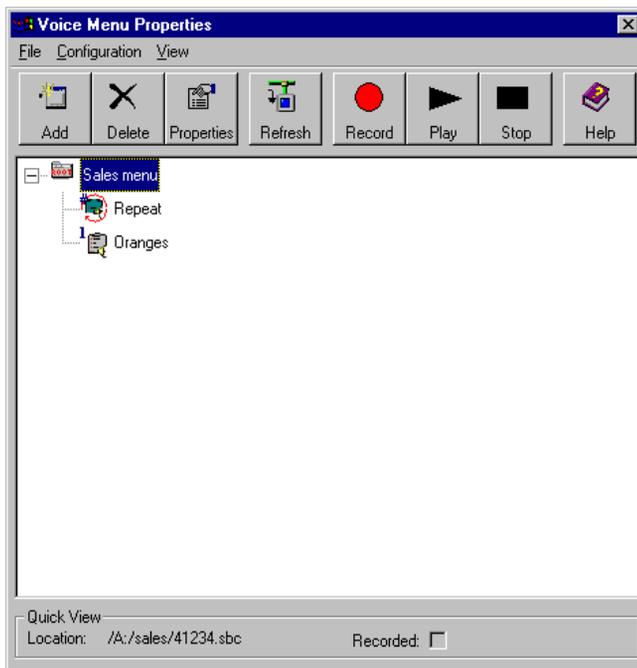
- 1 Decide on the type of Voice Services treatment that should follow the first treatment you configured.
- 2 In the Symposium Express Call Center Administration window, double-click Voice Services Administration.

**Result:** The Voice Services Administration window appears.



- 3 In the Voice Services Administration window, double-click the voice menu treatment you configured.

**Result:** The Voice Menu Properties dialog box appears.



- 4 Highlight the voice menu treatment.

- 5 Click Add to add a new treatment at this level.

**Result:** The Properties - Voice Menu dialog box appears.

**Note:** In the figure above, the Digit field refers to the digit option the caller presses that generates this treatment.

- 6 Enter a name for the treatment.
- 7 Type the location where you want to store the treatment (it must be stored on a PCMCIA card), or click Browse to open a browse dialog box, and then navigate to the location where you want to store the treatment.
- 8 Select the card name from the drop-down lists, and then enter a description of the treatment.
- 9 Choose the type of treatment or action to take for the voice menu. Choose one of the following options:

- Comfort Message
- Prompt/Collect Digits

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

- Sub-menu
- Transfer to CDN
- Repeat
- Go Back

<b>IF you select</b>	<b>THEN</b>
Transfer to =====>DN	enter the DN to which the call is transferred. No announcement is played.
Comfort Message	continue with step 11 of “Configuring a comfort message treatment” on page 108.
Prompt/Collect Digits	continue with step 9 of “Configuring a prompt/collect digits treatment” on page 116.
Sub-menu	continue with step 11 of “Configuring a comfort message treatment” on page 108. Some options will be determined by the parent Voice menu treatment (for example, the Language and SECC Controlled options).
Repeat, Go Back	These are system-generated default options.

# Using prompt/collect digits treatments

## ATTENTION

---

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

## Introduction

Prompt/collect digit treatments can be configured as front ending or as part of a Symposium Express Call Center call treatment (referred to as an SECC Controlled treatment). Symposium Express Call Center Controlled prompt/collect digit treatments can only be configured as Greeting Announcements.

## Front ending

You can front end a prompt/collect digits treatment by adding it to a front end voice menu or by configuring it as a front end announcement.

The two main methods to front end a prompt/collect digit treatment are as follows:

1. Map the treatment to a particular ACD DN (known as front ending). For more information, see “Mapping treatments to ACD DNs” on page 131. Before you configure prompt/collect digits treatments as front ending, you should consider the following points:
  - You can configure an after-treatment for the front end treatment. For example, this can be used to transfer the call to a particular CDN and into the control of Symposium Express Call Center.
  - It is possible to configure a chain of prompt/collect digits treatments, which will, in turn, be terminated with a transfer (after-treatment) into Symposium Express Call Center.
  - If you do not want all calls to receive the same front end treatment, you can configure multiple ACD DNs and assign treatments to different ports.

2. Integrate the prompt/collect digits treatments as part of the Voice Menu system.

You can configure a number of different prompt/collect digits treatments as nodes in a front ending voice menu. For more information on configuring voice menus, see “Types of Voice Services treatments” on page 99.

However, you should consider the following points:

- A number of prompt/collect digits treatments can be configured while still only using one ACD DN (IVR Queue).
- Each configured prompt/collect digits treatment can contain an after-treatment to a different CDN, and into the control of Symposium Express Call Center.
- Voice menu choices can be used to establish the relevant treatment and the most relevant transfer CDN (route into Symposium Express Call Center). This helps to ensure that the caller is routed to the correct skillset.

Multiple-digit collection can also be implemented as an after-treatment. If you intend to use the verification option in your prompt/collect digits voice services treatments, you must configure digit voice prompts before configuring prompt/collect digits treatment. See “To configure digit voice prompts” on page 110.

## Mapping treatments to ACD DNs

If you use Voice Services treatments to front end the call center, you must associate each treatment with an ACD DN. There can be several parts to a treatment (for example, a voice menu followed by a comfort message), but the final part of the treatment must transfer the call to a CDN acquired by Symposium Express Call Center or to a valid DN.

In the Switch Map area, you set up the number of ports per Voice Services card (8, 16, or 24, depending on the number of ports/channels you have on the card). These ports/channels must also be configured on the switch. For more information, refer to the *Symposium Express Call Center Planning, Installation, and Administration Guide*, Release 3.0.

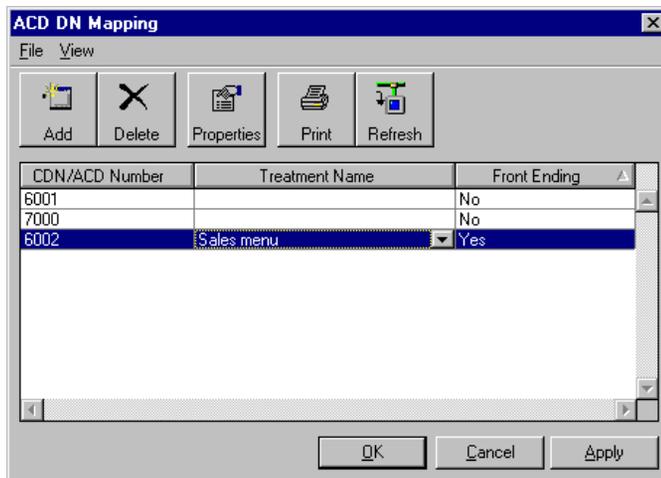
The treatment IDs that you assign here are the ones that you use in the Call Treatment wizard to define when a specific announcement is played.

Announcements that you record here are stored on one of the PCMCIA cards on the Voice Services card. There are no prerecorded announcements on the card.

## To map a treatment to a CDN/ACD

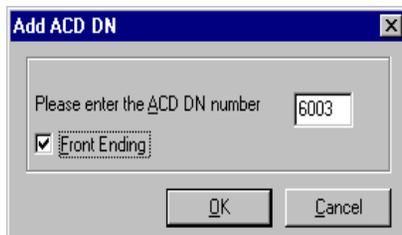
- 1 In the Voice Services Administration window, click Map.

**Result:** The ACD DN Mapping dialog box appears.



- 2 Click Add.

**Result:** The Add ACD DN dialog box appears.

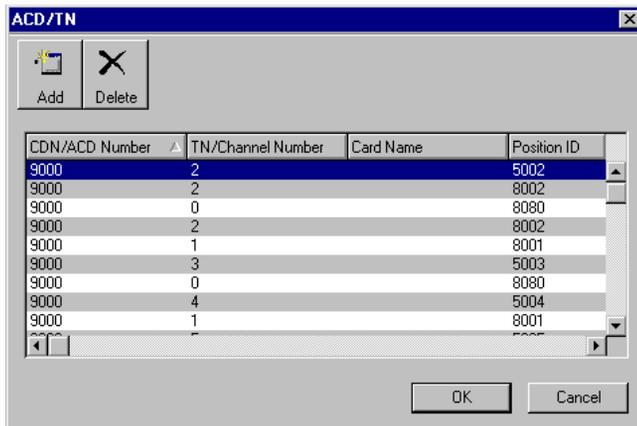


- 3 Enter the ACD DN number.
- 4 Check whether the ACD DN front ends the call center, and then click OK.
- 5 Select a treatment for the ACD DN from the drop-down list.
- 6 Click OK.

## To add a TN

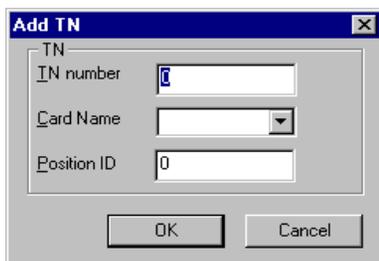
- 1 In the ACD DN Mapping dialog box, click Properties.

**Result:** The ACD/TN dialog box appears.



- 2 Click Add.

**Result:** The Add TN dialog box appears.



- 3 Click OK.

## To add a prompt/collect digits treatment as a greeting announcement

**ATTENTION**

---

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

You can add a prompt/collect digits treatment (or any other Voice Services treatment) as a greeting announcement in a Symposium Express Call Center call treatment. To do so, include the Voice Services Treatment ID and Voice Services IVR ACD number in the Announcements section of the Call Treatments application.

**Notes:**

- Prompt/collect digits treatments may only be used as greeting announcements. WAIT 1 /2 etc. is not supported.
- For more information on creating Symposium Express Call Center call treatments, see Chapter 6, “Configuring call treatments.”

# Chapter 6

---

## Configuring call treatments and call routing

### In this chapter

Overview	136
Section A: Configuring call treatments	145
Section B: Configuring call routing	163

# Overview

## Introduction

Switch resources are devices that are configured on the switch and acquired by Symposium Express Call Center. The acquisition of switch resources notifies the switch to send messages regarding the resources to Symposium Express Call Center. These resources are CDNs, routes, voice ports, IVR ACD-DNs, and ACD phonesets.

For a more detailed description of switch resources, see “Switching and routing concepts” on page 23. For procedures relating to the switch resources, refer to Chapter 7, “Configuring switch resources.”

After your Nortel Networks representative configures the switching resources, you can configure call routing.

## Call treatments

While callers wait for their calls to be answered by an agent, they may receive call treatment, such as a recorded announcement or music. You can create up to 32 different call treatments for your call center. The Call Treatment wizard guides you through a series of screens in which you configure

- the hours of operation of your call center
- how to handle calls that have been waiting in queue for an extended period of time (overflow treatment)
- holidays on which your call center is closed
- the types of announcements (such as Expected Wait Time or Position in Queue), music, or other tones to give to calls arriving at the call center

You can also configure how to handle calls during emergency situations from the Call Treatment window.

## Example

At BestAir Airlines, callers waiting to speak to a sales agent hear a recorded announcement. If they are still in the queue after 20 seconds, then they hear a second announcement that asks them to have their customer account number ready for the sales agent. Between announcements, customers hear music.

## Using Expected Wait Time and Position in Queue

Expected Wait Time and Position in Queue are optional features that can be used when playing the first wait announcement. They are used to

- make a decision on what type of announcement to play to the caller depending on the value of Expected Wait Time and Position in Queue
- inform callers of their expected wait time

It is not recommended to use Expected Wait Time and Position in Queue together. The actual expected wait time should only be played in unusual circumstances, and the actual position in queue should not be played.

You should understand the normal day-to-day traffic patterns of the call center before configuring these features. You must determine the average value for expected wait time or position in queue, so that you can play appropriate messages.

The following table summarizes when Expected Wait Time and Position in Queue should be used:

<b>Intrinsic</b>	<b>Most common use</b>	<b>When not to use</b>	<b>Play value to caller</b>
Expected Wait Time	to choose an appropriate wait message to play to the caller	when the skillset receives calls of different priorities	only during unusually high traffic
Position in Queue	to choose an appropriate wait message to play to the caller	when the skillset receives calls of different priorities	not recommended

## How Expected Wait Time should be used

This feature estimates how long it can take for the current call to be answered by a particular skillset based on historical information.

Nortel Networks recommends that the Expected Wait Time only be played during unusually high periods of traffic. For example, if the normal wait time for the call center is 2 minutes, but a burst of traffic has increased the wait time to 5 minutes, then callers can be informed that they can expect to wait for at least 5 minutes. In this case, the expected wait time configuration may look like the following:

<b>Expected Wait Time</b>	<b>Message</b>
Between 0 and 2 minutes	<i>“Your call will be answered by the next available agent. Please hold.”</i>
Between 2 and 5 minutes	<i>“Your call is important to us and will be answered shortly. Please continue to hold.”</i>
Over 5 minutes	<i>“We are currently experiencing an unusually high number of calls. Your expected wait time is at least 5 minutes.”</i>

Nortel Networks recommends that the Expected Wait Time feature only be used in single-priority systems. If calls of a different priority are queued to a skillset, then they may be placed higher in the queue than lower priority calls. This can lead to inaccurate announcements.

## How Position in Queue should be used

Nortel Networks recommends that this feature not be used to play callers' position in queue to them. Even when all calls queued to a skillset have the same priority, callers' positions in queue can change. Additionally, callers' positions in queue may not be meaningful to them as, in most cases, callers do not know how many agents the call center has available, and how long most calls take to complete.

The Position in Queue feature is used to determine which type of announcement to play to callers. In the example below, an average position in queue is 12. The messages played may be as follows:

<b>Position in Queue</b>	<b>Message</b>
Between 0 and 10	<i>“Your call will be answered by the next available agent. Please hold.”</i>
Between 10 and 15	<i>“Your call is important to us and will be answered shortly. Please continue to hold.”</i>
Between 15 and 20	<i>“We are currently experiencing an unusually high number of calls. Please continue to hold.”</i>
Over 20	<i>“We are currently experiencing an unusually high number of calls. You may want to call back after 1.00 p.m.”</i>

## Busy and overflow treatment

You can configure busy and overflow treatments to handle calls when the call center is very busy. Symposium Express Call Center bases busy and overflow treatments on the global ceiling threshold that you set in the Call Routing wizard, and on the overflow treatment levels that you set in the Call Treatment wizard.

The global ceiling threshold is the number of active or queued calls for the entire call center. Once this threshold is reached or exceeded, all new calls are either played a busy announcement and disconnected, or they are transferred to a DN, based on how you have configured the second overflow in the call treatment.

Overflow treatments are used to handle calls that have been waiting in queue for an extended period of time (by the callers' choice), or when the number of calls currently queuing (by the callers' choice) has exceeded the threshold for queued calls.

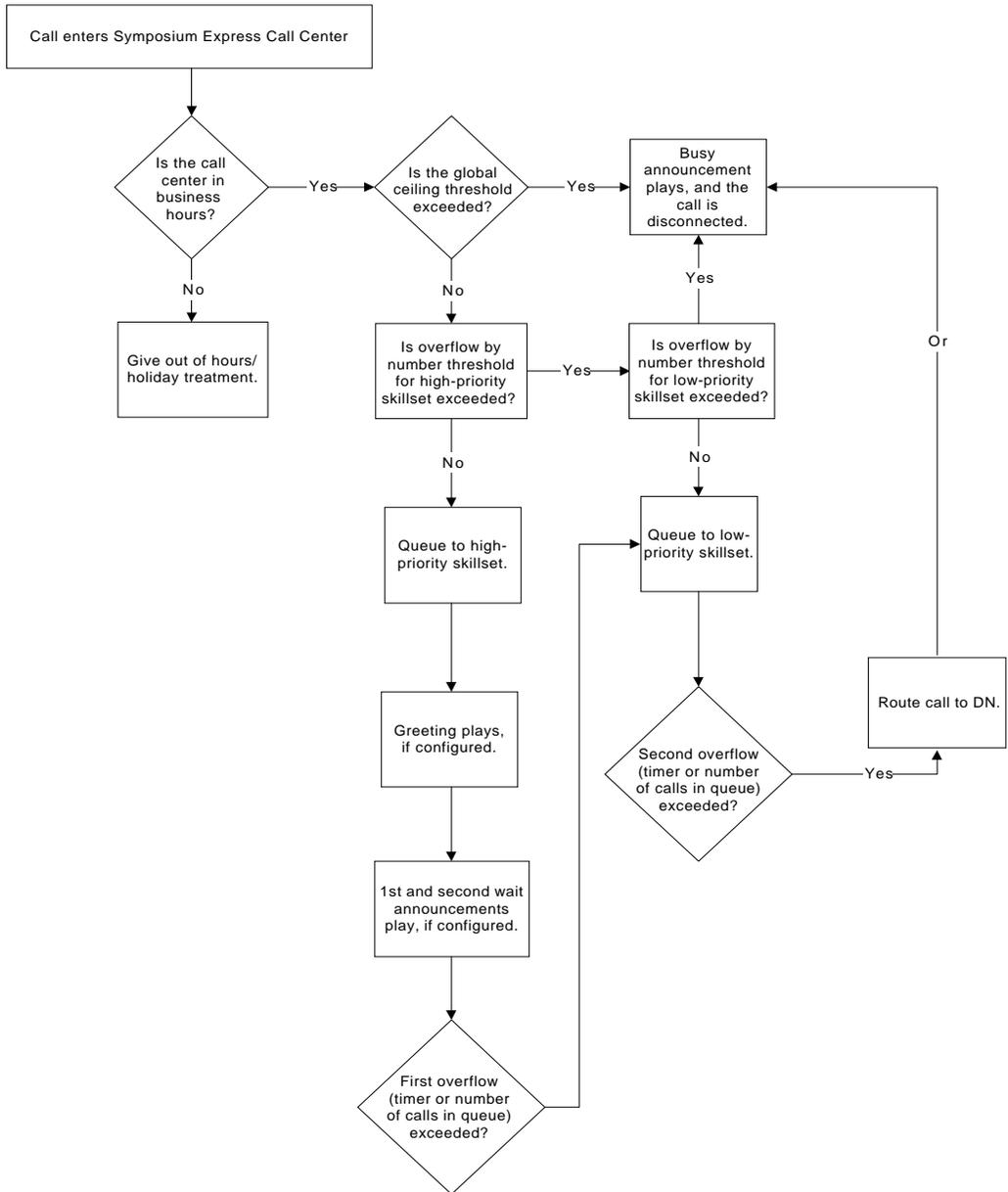
For each call treatment, you can configure a first and second overflow treatment. These treatments take effect when the threshold (for either the time in queue or the queued call count) has been exceeded. You set the threshold when you configure call treatments.

For example, as a first overflow treatment, you can queue calls to a low priority, or backup, skillset after 60 seconds. As a second overflow treatment, you can route calls to a mailbox or to another call center, or you can play an announcement after 3 minutes telling callers that the call center is busy.

You can also queue calls to a backup skillset based on the number of calls waiting in the skillset queue. The Overflow by Number threshold determines the number of calls that can be queued to a skillset before any new calls are overflowed to a backup skillset.

### **Busy and overflow treatment diagram**

The following diagram shows how busy and overflow treatments work in Symposium Express Call Center:



1. The call arrives at the Symposium Express Call Center CDN.
2. Symposium Express Call Center checks whether it is a business day, within business hours, and whether it is a holiday (in-hours or out-of-hours).
3. If it is a holiday or out of business hours, then the caller receives out-of-hours treatment.
4. If it is in business hours on a business day, the greeting announcement plays (if there is one configured).
5. Symposium Express Call Center checks the busy ceiling level for the CDN. If the number of calls in the queue has reached or exceeded the ceiling, then the caller is either played a busy announcement and disconnected, or is transferred to a DN, based on how you have configured the second overflow in the call treatment.
6. If the busy ceiling threshold is not exceeded, then Symposium Express Call Center checks the Overflow by Number threshold for the high-priority skillset configured for this CDN (if you select this option for the first overflow treatment).
7. If this number is not exceeded, then the call is queued to the high-priority skillset. The call receives treatment as configured in the call routing wizard. This treatment may include first and second wait announcements.
8. If the call is still waiting to be answered when the first overflow threshold is exceeded, then the call is queued to the low-priority skillset, if configured.
9. If a second overflow treatment is configured, then Symposium Express Call Center either
  - routes the call to a DN
  - or
  - plays a busy announcement after the second overflow threshold is passed

## Emergency treatment

You can configure how to handle calls when your call center is experiencing an emergency, or when all of the agents are logged off during business hours. Choose between playing an announcement or routing calls to a DN. For more information, see “Configuring emergency treatment” on page 159.

The emergency treatment that you configure applies to all calls that enter the call center. You cannot create multiple emergency treatments.

**Note:** The emergency treatment does not take effect unless all agents are logged off all skillsets. If all agents are logged off any one skillset during business hours, the call is presented to an agent logged on to another skillset.

To activate the emergency treatment, you must place the call center into the emergency state. For more information, see “Activating the emergency state” on page 161.

## Call routing

After you create call treatments, you must configure how calls are routed. You can route calls to different skillsets based on the call’s calling line ID (CLID), Dialed Number Identification Service (DNIS), or controlled directory number (CDN).

Use the Call Routing application to configure overflow priority information and treatment assignment. When this application is closed, CDN, DNIS, and CLID scripts are created for numbers that have skillsets assigned. Every CDN used in the Call Routing application has its own script with a unique script-name. The CLID and DNIS scripts are different. One CLID or DNIS script can contain up to 10 CLID or DNIS numbers used in the Call Routing application. They are created in batches of 10.

The Master script is created the first time the Call Routing wizard is used, and is modified thereafter. The treatment scripts are also modified to take the routing information into account. The Master script and treatment scripts are edited when any changes are made to the call routing wizard.

The capacity of Symposium Express Call Center 3.0 is as follows:

75 CDNs, 2000 CLIDs, 500 DNIS, and 32 treatment scripts.



# Section A: Configuring call treatments

## In this section

Adding call treatments	146
Configuring emergency treatment	159
Activating the emergency state	161

# Adding call treatments

## When to use

Follow the procedure in this section to configure the treatments that calls receive when they enter the call center.

**Note:** When you click Finish on the final Call Treatment screen, your changes take effect immediately for new calls entering the call center. Calls already in the queue receive treatments according to the previous settings.

## What you need

Before you begin, make sure that you have the following information:

- your call center's hours of operation
- the holidays on which the call center is closed and how calls are routed during this period
- how calls should be handled when the call center is busy
- available call treatments (ringback, music, or announcements)

## Limitations

You can create up to 32 call treatments.

## Before you begin

Before you create call treatments and configure call routing, you must ensure the following:

- The M1, M1 IE, or Succession CSE 1000 switch is installed and configured.
- The Symposium Express Call Center server and client software are installed.
- Meridian Mail or MIRAN is installed and configured (optional).

- The Voice Services card is installed in the M1, M1 IE, or Succession CSE 1000 switch, and Voice Services segments are configured on Symposium Express Call Center. (The Voice Services card is a keycoded feature.)
- Recorded announcements are available. Symposium Express Call Center uses IVR ACD-DNs, treatment IDs, and music/RAN routes to access RANs. Speak to your distributor for more information.

## Upgraded servers

### ATTENTION

---

When converting to Symposium Express Call Center Release 3.0, the call treatments are deleted. Nortel Networks recommends that you record the call treatments so that you can replace them after the conversion.

For information on upgrading to Symposium Express Call Center Release 3.0, see *Nortel Networks Symposium Express Call Center Planning, Installation, and Administration Guide*.

Use the Script Upgrade utility to save all Symposium Express Call Center 2.0 scripts to a .upg file prior to a Symposium Express Call Center 2.0 to Symposium Express Call Center 3.0 upgrade. Then retrieve and reinstall all scripts after the upgrade has been successfully completed.

There are, therefore, two steps to this process:

1. the download, which is run on a Symposium Express Call Center Release 2.0 coresident machine
2. the upgrade, which is run on a Symposium Express Call Center Release 3.0 coresident machine

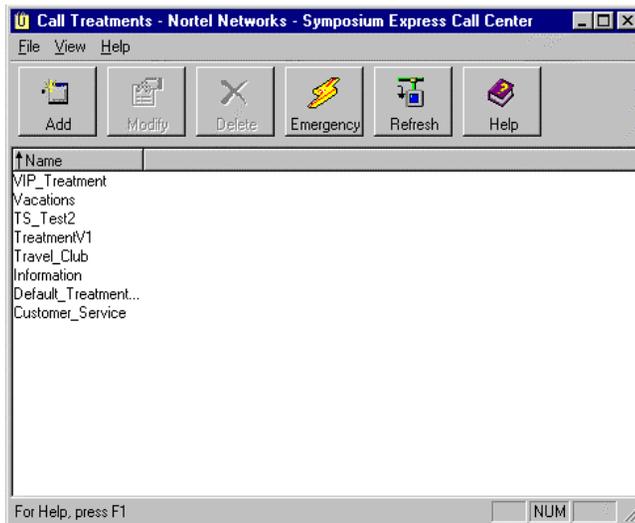
Both steps are launched from a dialog box that automatically launches the correct application (download or upgrade), depending on whether it is run on a Symposium Express Call Center Release 2.0 or Release 3.0 computer.

You need sysadmin privileges to use this feature.

## To add call treatments

- 1 In the Administration window, double-click the Call Treatments icon.

**Result:** The Call Treatments window appears.



- 2 Click Add.

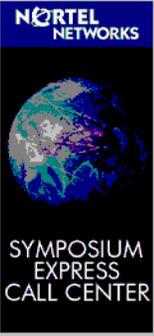
**Result:** A dialog box appears, prompting you for the name of the treatment.

- 3 Enter a name for the call treatment, and then click OK.

**Note:** The name must not include any of the reserved words shown in Appendix C, "Reserved words list."

**Result:** The Hours Of Business dialog box appears.

Treatment VSTreat : Hours Of Business



Select the days when your call center is in operation. Enter the start and end time for each business day, in HH:MM format. For a 24 hour call center, the start time would be 00:00 and the end time would be 23:59.

Days of Operation	Start Time	End Time
<input checked="" type="checkbox"/> Monday	0:00	23:59
<input checked="" type="checkbox"/> Tuesday	0:00	23:59
<input checked="" type="checkbox"/> Wednesday	0:00	23:59
<input checked="" type="checkbox"/> Thursday	0:00	23:59
<input checked="" type="checkbox"/> Friday	0:00	23:59
<input checked="" type="checkbox"/> Saturday	0:00	23:59
<input checked="" type="checkbox"/> Sunday	0:00	23:59

< Back   Next >   Cancel

- 4 Select the days of the week and the hours during which the call center is open.

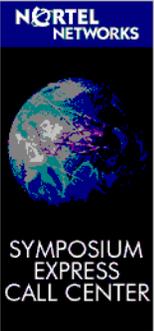
**Note:** Enter the hours in 24-hour clock format (hh:mm).

If your call center is open 24 hours a day, then the start time is 0:00 and the end time is 23:59.

- 5 Click Next.

**Result:** The Out Of Service dialog box appears.

**Treatment VSTreat : Out Of Service**



Select the month and dates when your call center will be closed and add them to the current holiday list :

Non-Business Days

Month:  Date:

Current Non-Business Days

Select the type of treatment you wish to give to calls when your call center is closed :

Out of Hours Service

Route calls to this number:

Route calls to this skillset:

Play an out of hours announcement

Select the type of treatment you wish to give to calls which queue to skillset(s) which are Out Of Service:

Skillset Out of Service Treatment

Route calls to this number:

Play an unable to handle call announcement

- 6 Select months and dates of holidays when the call center is closed, and click Add to move them to the Current Non-Business Days list.

To remove a date from the list, select the date in the Current Non-Business Days list, and then click Delete.

- 7 Select the mailbox or skillset to which to route calls during holidays or out-of-service periods. After the out of service treatment, calls can either be

routed to another number, or you can configure it so that an announcement is played to the caller.

IF	THEN
you select Route calls to this number	enter the mailbox number in the box to the right. Routing to a number allows the caller to reach an auto-attendant, remote agent, or mailbox, depending on how the number is configured on the switch.
you select Route calls to this skillset	select a skillset in the list of skillsets shown in the box.
you select Play an out of hours announcement	enter the route for the out-of-hours announcement in step 3 of this procedure. If you use Meridian Mail, then this announcement can direct the caller to a mailbox or other voice menus.

- 8** To configure a treatment for calls when the call center is open but there are no agents logged on to the assigned skillsets, ensure that you select an option in the Skillset Out of Service Treatment box.

IF you want to	THEN
route the call to a DN	<ol style="list-style-type: none"> <li>a. check Route calls to this number.</li> <li>b. enter the DN in the box to the right.</li> </ol>
play a busy announcement	<ol style="list-style-type: none"> <li>a. check Play an unable to handle call announcement.</li> </ol>

2 Click Next.

**Result:** The Overflow Configuration window appears.

**Treatment VSTreat : Overflow Configuration**

Select the time interval / queued call count to overflow to the low priority skillset :

First Overflow Treatment

- Calls will be overflowed to the low priority skillset after  seconds
- Calls will be overflowed to the low priority skillset if call count >  calls

Select the type of treatment you wish to give to calls when your call center is too busy to handle calls :

Second Overflow Treatment

Dn/Dif

Overflow After

- seconds
- calls

Treatment

- Route calls to this number
- Play an unable to handle call announcement then
- Remain in Queue  Disconnect

< Back   Next >   Cancel

- 3** For First Overflow Treatment, choose how you want to trigger the first overflow.

<b>IF you want to trigger the first overflow based on</b>	<b>THEN</b>
the amount of time calls have waited in the queue	<p><b>a.</b> check Calls will be overflowed to the low priority skillset after:</p> <p><b>b.</b> indicate the amount of time after which calls should be queued to a lower priority, or backup, skillset.</p> <p><b>Note:</b> You select lower priority skillsets when you configure call routing. For more information, see step 5 in “To configure how calls are routed to skillsets” on page 171.</p>
the number of calls in the queue	<p><b>a.</b> check Calls will be overflowed to the low priority skillset if call count &gt; .</p> <p><b>b.</b> indicate the maximum number of calls that can be in the queue before calls should be queued to a lower priority, or backup, skillset.</p>

- 3** Do the following if you want to configure a second overflow treatment:
- a.** Ensure that Second Overflow Treatment On/Off is checked.
  - b.** If you want to trigger the second overflow treatment based on the time the call has been waiting in the queue, check the seconds button, and then enter the amount of time.
  - c.** If you want to trigger the second overflow treatment based on the number of calls in the queue, check the calls button, and then enter the number of calls.
  - d.** Check either Route calls to this number, or Play an unable to handle call announcement. Choose the type of treatment the call receives at this point.

<b>IF you want to</b>	<b>THEN</b>
route the call to a DN	<b>a.</b> check Route calls to this number. <b>b.</b> enter the DN in the box to the right.
play a busy announcement	<b>a.</b> check Play an unable to handle call announcement. <b>b.</b> choose whether you want the caller to remain in queue or to be disconnected.

**3** Click Next.

**Result:** The Voice Services/MMail Segments dialog box appears.

**Treatment VSTreat : Voice Services / MMail Segments**

Please configure your Voice Services / MMail segment announcements for your call center ?

Voice Services / MMail Segments:

Expected Wait Time Configure Expected Wait Time announcement segments

Position In Queue Configure Position In Queue announcement segments

Add Segment

Delete Segment

Print Segments

Voice Services/ MMail IVR Port:

Please enter the IVR port number that you wish the configured treatments to use :

Please configure the announcement ID's plus their associated ranges, that you would like the customers to hear whilst waiting for their call to be answered.

Voice Services / MMail Segment Configuration

Segment	Expected Wait Time - Between .. & .. Seconds

< Back   Next >   Cancel

**Note:** This dialog box appears only if you have purchased the Voice Services option. If you did not purchase this option, the Treatment Announcements dialog box appears. Skip to step 7.

- 4 In the Voice Services/MMail IVR Port box, enter the number of the IVR Ports to use for the Expected Wait Time and Position in Queue treatments.
- 5 Configure the voice segments to play for Expected Wait Time and Position in Queue. For more information on Expected Wait Time and Position in

Queue, refer to “Using Expected Wait Time and Position in Queue” on page 137.

<b>IF you want to</b>	<b>THEN</b>
configure Expected Wait Time	<ol style="list-style-type: none"><li><b>a.</b> in the Voice Services/MMail Segments box, click Expected Wait Time.</li><li><b>b.</b> click Add Segment.</li><li><b>c.</b> enter a treatment number, and then click OK.</li><li><b>d.</b> repeat steps b and c for each voice segment.</li><li><b>e.</b> in the Voice Services/MMail Segment Configuration box, enter the time interval, in seconds, for which each segment plays.</li></ol>
configure Position in Queue	<ol style="list-style-type: none"><li><b>a.</b> in the Voice Services/MMail Segments box, click Position in Queue.</li><li><b>b.</b> click Add Segment.</li><li><b>c.</b> enter a treatment number, and then click OK.</li><li><b>d.</b> repeat steps b and c for each voice segment.</li><li><b>e.</b> in the Voice Services/MMail Segment Configuration box, enter the interval (number of calls) for which each segment plays.</li></ol>

**6** Click Next.

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

- 7 In the Announcements box, select the type of announcements that your call center uses. If you use Voice Services, select Meridian Mail or IVR.

IF	THEN
you select RAN or MIRAN	select the route to which callers are transferred to hear announcements.
you select Meridian Mail or IVR	<ol style="list-style-type: none"> <li>enter the number to which callers are transferred to hear an announcement.</li> <li>enter the treatment ID stored in Meridian Mail.</li> </ol>

- 3 To play other announcements, click the box for the type of announcement, and either select the route or specify the treatment ID in the ID boxes.

**Notes:**

- a. The option to play a Wait announcement enables you to inform the caller of the amount of time he or she can expect to wait before the call is answered, and the position his or her call occupies in the queue. These options (Expected Wait Time and Position in Queue) are keycoded options. Expected Wait Time and Position in Queue can only be played once for each call.
  - b. The option to play an out-of-hours announcement is available if you select Play an out of hours announcement in step 7.
  - c. The option to play an in-hours busy announcement is available if you select Play an unable to handle call announcement in the Overflow Configuration window in step 3d. This announcement plays after the second overflow treatment. It also plays if the global ceiling threshold or busy ceiling for a CDN, DNIS, or CLID is reached or exceeded. (For ceilings only, after the announcement has been played, the call is disconnected.)
- 4 Select whether you want callers to hear a ringback tone or music between announcements. If you choose Music, then select the music route.
  - 5 Indicate how often to play announcements.
  - 6 Click Finish. To make changes, click Back.

**Result:** Once you click Finish, the new setting takes effect immediately for all of the new calls entering the call center. Calls that are already in the queue receive the previously specified treatments.

# Configuring emergency treatment

## When to use

Follow the procedure in this section to configure how calls are handled when your call center is in a state of emergency.

**Note:** During an emergency, all calls entering the call center are handled in the same way. You cannot configure different emergency treatments for different skillsets. The emergency treatment does not take effect unless all agents are logged off all skillsets, or the emergency state is activated by the customer administrator. For more information, refer to “Activating the emergency state” on page 161. If all agents are logged off only one skillset during business hours, the call is presented to a logged on agent in another skillset.

## To configure emergency treatment

- 1 In the Administration window, double-click the Call Treatments icon.
- 2 Click Emergency.

**Result:** The Emergency Options dialog box appears.

Emergency Options

Select the type of treatment you wish to give to calls when your call center is in a state of emergency, or all agents are logged out :

Emergency Selection

Route calls to this number

Play an Emergency announcement

What type of announcements are you using?

BAN or MIRAN

Meridian Mail

Callers will be transferred to this number to hear announcements

Emergency announcement

Meridian Mail ID No.

OK Cancel

- 3** Indicate how Symposium Express Call Center should handle emergency situations.

<b>IF you select</b>	<b>THEN</b>
Route calls to this number	enter the mailbox number in the box to the right. Routing to a number allows the caller to reach an auto-attendant, remote agent, or mailbox, depending on how the number is configured on the switch.
Play an Emergency announcement	select the type of announcement that you use (RAN, MIRAN, or Meridian Mail), and then enter the route number for the emergency announcement. If you use Meridian Mail, then this announcement can direct the caller to a mailbox or other voice menus.

- 4** Click OK to return to the Call Treatment window.

# Activating the emergency state

## When to use

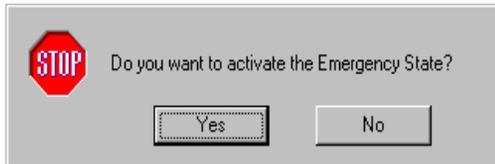
Follow the procedure in this section to activate the emergency state. When you activate the emergency state, the emergency treatment that you configured in “Configuring emergency treatment” on page 159 takes effect.

**Note:** Symposium Express Call Center does not automatically log agents off when you activate the emergency state. Calls do not reach agents when the call center is in the emergency state because callers either hear the emergency announcement, or the call is routed to a DN.

## To activate the emergency state

- 1 Log on to Symposium Express Call Center using the customer administrator's user ID (custadmin).
- 2 Click Stop.

**Result:** The following message appears:



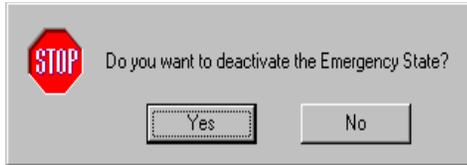
- 3 Click Yes.

**Result:** The emergency state is activated. A flashing message indicates that the emergency state is in operation.

## To deactivate the emergency state

- 1 Log on to Symposium Express Call Center using the customer administrator's user ID (custadmin).
- 2 Click Stop.

**Result:** The following message appears:



- 3 Click Yes.

**Result:** The emergency state is deactivated. Normal call center functions resume.

## Section B: Configuring call routing

### **In this section**

How call routing works	164
Planning call routing	167
Configuring call routing	171

# How call routing works

## Call routing

You can route calls to skillsets based on one or more of the following numbers:

- CLID
- DNIS
- CDN

For each CLID, DNIS, or CDN, you determine the skillset to which the call is routed, and the priority level for the call in that skillset.

**Note:** To route calls based on CLID or DNIS, the CLID or DNIS number must have been entered in the Symposium Express Call Center database. If you have not configured call routing based on a specific number (CLID, DNIS, or CDN) selected in the Call Routing Wizard, calls receive default routing. For example, if the CLID is unavailable, or if no matches are found in the database, then the call is routed based on DNIS. If the DNIS is unavailable, or if no matches are found in the database, then the call is routed based on CDN.

## Maximum number of skillsets

For each CLID, DNIS, and CDN, you can configure a maximum number of 20 skillsets. If all agents are busy in the higher priority skillsets, then the calls are queued to the lower priority skillsets.

## Example

BestAir Airlines has a special DNIS (or 1-800 number) for its VIP Gold Club members. All calls that enter the call center using this number are queued to the VIP Gold Clients skillset with high priority. The General Sales skillset is also configured to receive calls from this number, but at a low priority. If no agents from the VIP Gold Clients skillset are available, then the call is queued to the General Sales skillset.

## Using announcements

You specify one of three choices for recorded announcements when you configure call treatments:

- RAN or MIRAN
- Meridian Mail
- Voice Services

### **RAN or MIRAN**

Select RAN or MIRAN on the Treatment Announcements dialog box if you use either a third-party RAN card or MIRAN to record and play announcements. RAN or MIRAN use existing routes to play announcements. Since these routes are configured on the M1, M1 IE, or Succession CSE 1000 switch and acquired by Symposium Express Call Center, you only need to choose the routes to use for announcements.

### **Meridian Mail Announcement**

Select Meridian Mail Announcement on the Call Treatment dialog box if you use Meridian Mail to record and play announcements. These announcements use treatment IDs that are stored on Meridian Mail. Since you do not configure these treatment IDs on the M1, M1 IE, or Succession CSE 1000 switch, and you do not acquire them in Symposium Express Call Center, you must specify the treatment IDs on the Treatment Announcements dialog box.

### **Voice Services card**

The Voice Services card provides functionality similar to Meridian Mail. The Voice Services card enables you to play recorded announcements and voice menu options so that you can collect customer-entered data.

**Note:** Voice Services announcements are a keycoded feature available only if you have installed a Voice Services card in the M1, M1 IE, or Succession CSE 1000 switch.

## Types of announcements

You can configure Symposium Express Call Center to play the following types of announcements:

- An initial greeting. This plays when the call first enters the system.
- A wait announcement. This announcement plays when the call has been in the queue for a specified amount of time. You can use the Expected Wait Time and Position in Queue features to decide the type of announcement that plays here.
- A second wait announcement. If the call has still not been answered by an agent after a specified amount of time, then the caller hears a second wait announcement.
- An out of hours announcement. This announcement tells callers that the call center is closed.
- A busy announcement. This announcement plays after the second overflow if you select Play an unable to handle calls announcement in the Treatment Overflow Configuration dialog box. It also plays if the global ceiling threshold for a CDN is reached or exceeded.
- An emergency announcement. This announcement plays when the call center administrator presses Stop in the Administration window, or when there are no agents available to take calls during business hours.

You configure the types of announcements to play when you create call treatments.

# Planning call routing

## Introduction

An efficient call center is one in which you have successfully matched callers and their specific requirements with agents qualified to handle their calls. If you are aware of the types of callers who place calls to your call center, and the specific information or services they require, then you can successfully route calls.

Efficient servicing of your callers ensures an efficient call center. If you understand these objectives, you can begin to draft the process of how to treat the different types of calls entering your call center.

## Determine the types of calls entering your call center

Once you have determined the types of calls entering your call center, you can create skillsets that correspond to these call types and assign agents to the skillsets.

## Understand skill-based routing

The concept of matching qualified agents with related call types is the basis for skill-based routing. You must be able to match callers' requirements with an agent prepared to answer their questions. At the same time, you must be aware of when to provide treatments to calls and how call information is tracked.

## Define your objective

Treat calls with the goal of meeting an objective of your call center. Determine what you want to accomplish (for example, routing a specific caller to a specific skillset or agent).

**Note:** Symposium Express Call Center does not support routing calls to a specific agent. However, you can accomplish the same result by creating a skillset and assigning only one agent to it.

To help plan call routing, you can create a flowchart or an illustration to outline the intended path the call will follow once it enters Symposium Express Call Center. A flowchart helps you to visualize the path, and allows you to determine when to give treatments to the call and when you can collect data for reporting purposes.

## Identify the available resources

Symposium Express Call Center includes many resources that you can use to control what happens to a call once it enters the call center. Knowledge of these resources and how they work together helps you to design the path that calls follow. Before you configure call routing, you must be familiar with the following resources:

- CDNs
- RAN routes
- music routes
- skillsets
- number of agents in each skillset
- call center working hours and holidays
- IVR queues
- call treatments
- CLIDs and DNISs
- announcements

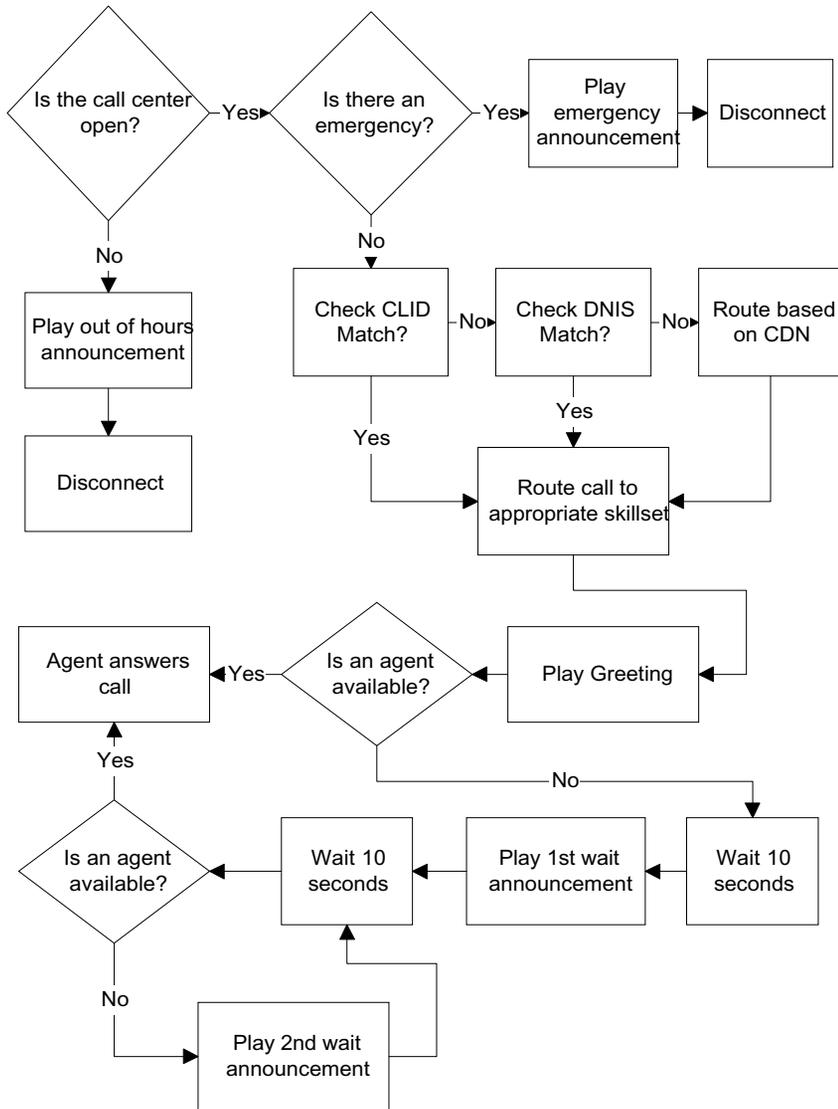
## Chart the call routing process

The following diagram shows how you may configure call routing for your call center:

### Notes:

1. An “emergency” is when either of the following situations occurs:
  - All agents are logged off during business hours.
  - The call center administrator presses the Emergency button in the Administration window.

- 
2. You can configure the amount of time that Symposium Express Call Center waits between announcements. In this example, there is a 10-second delay between announcements.



# Configuring call routing

## Introduction

Follow the procedure in this section to configure how calls are routed to skillsets.

**Note:** When you click Apply on the Call Routing window, new calls to the switch are immediately directed according to the settings just entered. Calls that are already in the queue receive treatments according to the previous settings.

## Before you begin

Before you configure call routing, you must ensure the following:

- The Symposium Express Call Center database is updated with switch information, and the switch resources are acquired using the Import wizard. For more information, contact your distributor.
- Skillsets are created. See Chapter 4, “Configuring skillsets.”
- Call treatments are created. See “Configuring call treatments” on page 145.

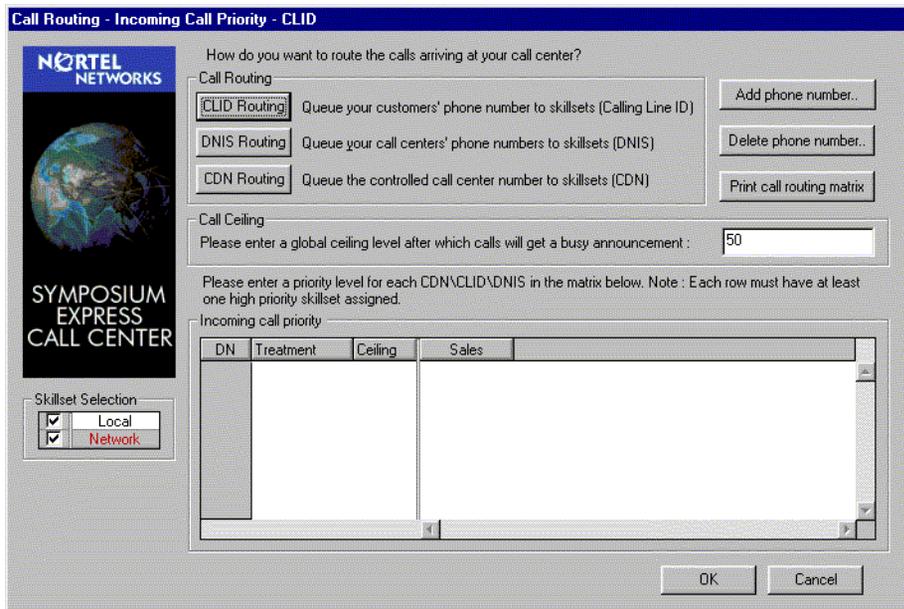
## What you need

You need to know how calls are routed to skillsets and how they are prioritized (by CLID, DNIS, CDN, or a combination of these numbers).

**Note:** If Symposium Express Call Center does not successfully route the call, then the switch takes control of the call.

## To configure how calls are routed to skillsets

- 1 In the Administration window, double-click the Call Routing icon.  
**Result:** A message appears, warning that your changes will take effect immediately.
- 2 Click Yes to continue.  
**Result:** The Call Routing dialog box appears.



**Tip:** If you want to route certain calls to a specific agent, then create a skillset for that agent only.

**3** Indicate how to route incoming calls.

IF	THEN
you select CLID Routing	click Add phone number, and enter the CLID number. The number appears in the DN column of the Incoming call priority list at the bottom of the window.  You can use wildcards to provide similar treatment to certain types of calls entering your call center. For example, you may want to route all calls entering from Ireland to a specific skillset.
you select DNIS Routing	click Add phone number, and enter a DNIS number. The number appears in the DN column of the Incoming call priority list at the bottom of the window.

IF	THEN
you select CDN Routing	<p>CDNs that are acquired from the M1, M1 IE, or Succession CSE 1000 may automatically be in the left-hand DN column. This only occurs the first time you run the Call Routing Wizard. You must add and delete CDNs manually from then on.</p> <p><b>To add a new CDN</b></p> <p><b>a.</b> Click Add phone number.</p> <p><b>b.</b> Enter the CDN number and the CDN script name.</p> <p><b>Result:</b> The number appears in the DN column.</p> <p><b>Note:</b> The name must not include any of the reserved words shown in Appendix C, "Reserved words list."</p>

3 Select the appropriate call treatment for each CLID, DNIS, or CDN number.

4 Enter a call ceiling for each CDN, CLID, or DNIS.

**Note:** When the number of calls coming into an individual CLID, DNIS, or CDN reaches its respective ceiling, the caller is either played a busy announcement and disconnected, or is transferred to a DN, based on how you have configured the second overflow in the call treatment.

**Example:** A call center manager may decide that CDN 2222 should have a ceiling of 10, because CDN 2222 is routed to the French skillset and the call center only has two people in that skillset at any one time.

5 In the Incoming call priority list, click the intersection point of the DN number and the skillset, and select a priority level.

**Note:** You have a choice of routing a call to one of six priorities. Three are high priority and three are low priority (overflow). The high priorities are denoted as 1, 2, and 3. 1 is the highest priority. The low priorities are denoted as 1, 2, and 3 with arrows next to them. You must have at least one high-priority skillset for each CLID, DNIS, and CDN. You can view only one routing type (CLID, DNIS, or CDN) in the list at a time.

**Note:** You can also assign priority to network skillsets. Priority can be set at high or low. Low priority can be set at

- |   |        |
|---|--------|
| 1 | low    |
| 2 | lower  |
| 3 | lowest |
- 

High priority can be set at

- |   |         |
|---|---------|
| 3 | high    |
| 2 | higher  |
| 1 | highest |
- 

You can configure a maximum of 20 skillsets for each CLID, DNIS, and CDN.

- 6** Enter the global call ceiling.

**Note:** The global ceiling threshold is the number of active or queued calls in the entire call center. When this threshold is reached, all new calls are either played a busy announcement and disconnected, or are transferred to a DN, based on how you have configured the second overflow in the call treatment.

- 7** Click Apply to put your changes into effect.
- 8** Click Print call routing matrix for a hard copy of your call routing configuration.

## CLID wildcard and placeholder usage

The following two types of free-format expression in CLID digit strings are available:

- **wildcard** a single character that represents a variable-length digit string (the symbol @ is used)
- **placeholder** a single character that represents a single-digit position (the symbol ? is used)

Since CLID numbers are most commonly used with international dialing plans to check against calling party information, they are allowed to contain flexible digit notations (wildcard and placeholder).

The following special rules apply to the formatting of CLID numbers.

You can

- use only one wildcard in any one CLID digit string (for example, the digit string @345@ is not valid).
- use a wildcard only at either the beginning or end of a CLID digit string.
- use a wildcard only in the CLID digit string.
- use placeholders only in the CLID intrinsic.
- use both wildcards and placeholders in a CLID digit string, with the above rules still applying to wildcard and placeholder placement.



# Chapter 7

---

## Configuring switch resources

### In this chapter

Overview	178
Section A: Working with CDNs	181
Section B: Working with phonesets	187
Section C: Working with activity codes	195
Section D: Working with DNISs	201

# Overview

## Introduction

You must configure a number of resources on Symposium Express Call Center that have already been configured on the switch.

## Acquired resources

These resources include

- Controlled Directory Numbers (CDNs)
- phonesets
- voice ports
- routes

**Note:** The server must acquire a route if you want to be able to generate All Trunks Busy reports for that route.

When you configure these resources on the server, you add them to a catalog maintained by the server. At startup, or whenever you make a change to the catalog of resources (for example, if you add a phoneset), the server acquires these resources. When you acquire a resource, the switch sends messages regarding the resource to Symposium Call Center Server.

### States of acquisition

The following table shows the states that switch resources can enter:

IF the current state is	THEN
Not Acquired	the resource has just been created or deacquired.
Acquired-Pending	there is a request into the system to acquire the resource.
Acquired	the resource is acquired from the switch.
Acquired Login (voice port)	the voice port has been acquired, and is in logon state.

IF the current state is	THEN
Acquired Logout (voice port)	the voice port has been acquired, and is in logoff state.
Acquired-Failed	a problem occurred during an attempt to acquire the resource. The server is unable to acquire it.
Deacquired-Pending	there is a request into the system to deacquire the resource.
Deacquired-Failed	there is a problem deacquiring the resource from the switch, and the system is unable to deacquire it.

**Note:** A change in the status of an acquisition is not automatically reflected in the resource window. To view the current status of the acquisition of a switch resource, select Refresh on the View menu.

## Other resources

To make your reports easier to understand, you can assign names to the following resources:

- activity codes
- DNISs

### ATTENTION!

Information that is configured at the switch must match the configuration on Symposium Express Call Center to ensure that the switch and the system can communicate and function properly.



# Section A: Working with CDNs

## In this section

Overview of CDNs	182
Adding CDNs	183
Acquiring and deacquiring CDNs	185
Other procedures for CDNs	186

# Overview of CDNs

## Introduction

A controlled directory number (CDN) enables incoming calls to be queued into the switch and messages to be sent to Symposium Express Call Center regarding these calls.

To ensure that Symposium Express Call Center can track when calls are terminated at that CDN, you must first add a CDN at the switch, and then add it at the server. Then the system must acquire it.

# Adding CDNs

## Introduction

To enable the server to acquire a CDN, you must do the following:

1. Define the CDN at the switch.
2. Add the CDN on Symposium Express Call Center.

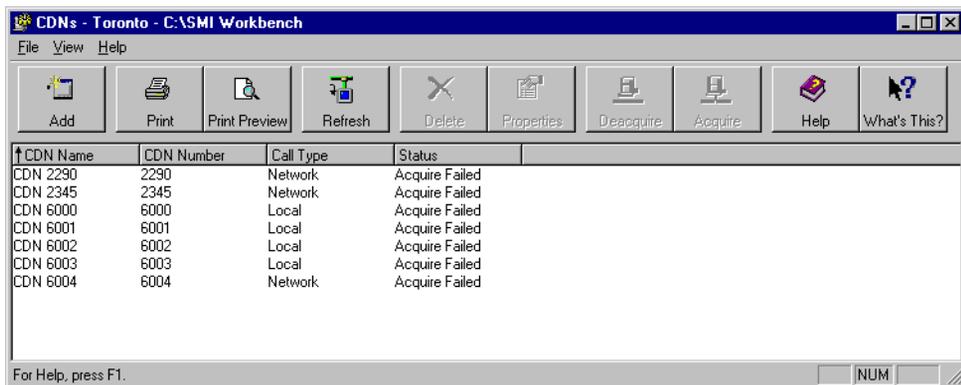
## Before you begin

Make sure that the CDN is configured on the switch. For more information, refer to the *Symposium, MI, and Voice Processing Guide*.

## To add a CDN

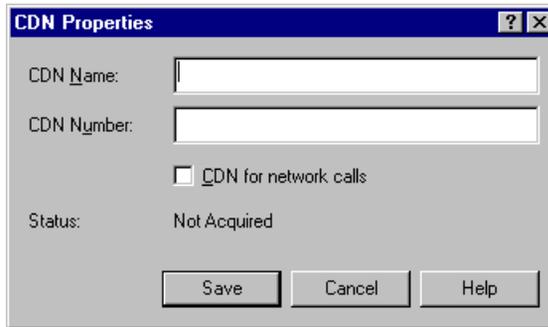
- 1 Log on to Symposium Express Call Center as the customer administrator.
- 2 In the Administration window, double-click the CDNs icon.

**Result:** The CDNs window appears.



- 3 Choose File → New.

**Result:** The CDN Properties property sheet appears.



- 4 Enter information into the following boxes:

**CDN Name:** The name of the CDN as it appears on reports. CDN names are restricted to alphanumeric characters and underscores (\_).

**CDN Number:** The number that is passed to the switch in requests to acquire or deacquire the CDN. This number must match the number that is configured at the switch.

- 5 Click Save.

**Result:** The new CDN is added to the list in the CDNs window. It has the status Not Acquired.

## After you finish

Now that you have added the CDN, you must acquire it to enable the system to track calls terminated on it. To acquire the CDN, see “Acquiring and deacquiring CDNs” on page 185.

# Acquiring and deacquiring CDNs

## Introduction

Follow this procedure to request the system to acquire or deacquire a CDN. Symposium Express Call Center must acquire a CDN so that it can track when calls are terminated at that CDN.

**Note:** Nortel Networks recommends that you deacquire a CDN before you configure it on the switch.

## Before you begin

Make sure the CDN has been configured on the switch and added on Symposium Express Call Center (see “Adding CDNs” on page 183).

## To acquire or deacquire a CDN

- 1 In the Administration window, click the CDNs icon.  
**Result:** The CDNs window appears.
- 2 Select the CDN you want to acquire or deacquire.
- 3 If you want to acquire the CDN, choose File → Acquire. If you want to deacquire the CDN, choose File → deacquire.  
**Result:** The CDN status changes to Acquired (or Deacquired) pending.
- 4 To refresh the CDN status on the display, choose View → Refresh.

## Other procedures for CDNs

### To change the properties of a CDN

**Notes:**

- You must deacquire a CDN before you change its properties.
- You cannot change the number assigned to a CDN once it has been saved. You must delete the CDN and recreate it with a new number.

In the CDNs window, select the CDN you want to change, and then choose File → Properties.

For step-by-step instructions, press F1 to access the online Help.

### To preview a list of CDNs

From the CDNs window, choose File → Print Preview.

For step-by-step instructions, press F1 to access the online Help.

### To print a list of CDNs

From the CDNs window, choose File → Print.

For step-by-step instructions, press F1 to access the online Help.

### To delete a CDN

**Notes:**

- Before deleting a CDN, make sure that its status is one of the following: Not-Acquired, Acquired-Failed, or De-acquired-Failed.
- This procedure does not delete the CDN from the switch.

In the CDNs window, select the CDNs you want to delete, and then choose File → Delete.

For step-by-step instructions, press F1 to access the online Help.

## Section B: Working with phonesets

### In this section

Overview of phonesets	188
Adding phonesets	189
Acquiring and deacquiring phonesets	191
Other procedures for phonesets	192

# Overview of phonesets

## Introduction

You must add and acquire each phoneset at which agents and supervisors will log on to the system. When the Symposium Express Call Center acquires a phoneset, the switch begins sending messages about the phoneset to the server.

## Agent and supervisor phonesets

Agents are not associated with a specific phoneset. They can log on to any phoneset. When agents log on, the server obtains their position ID from the switch. The server automatically maps agents' position IDs to their agent key on the supervisor's phoneset.

Supervisors are associated with a specific phoneset, as specified in the position ID box. This enables the switch to program the keys on the supervisor's phoneset to communicate with that supervisor's agents.

# Adding phonesets

## Introduction

You must add and acquire each phoneset that you want to use with Symposium Express Call Center so that the switch can send messages to the server when an agent logs on to the phoneset.

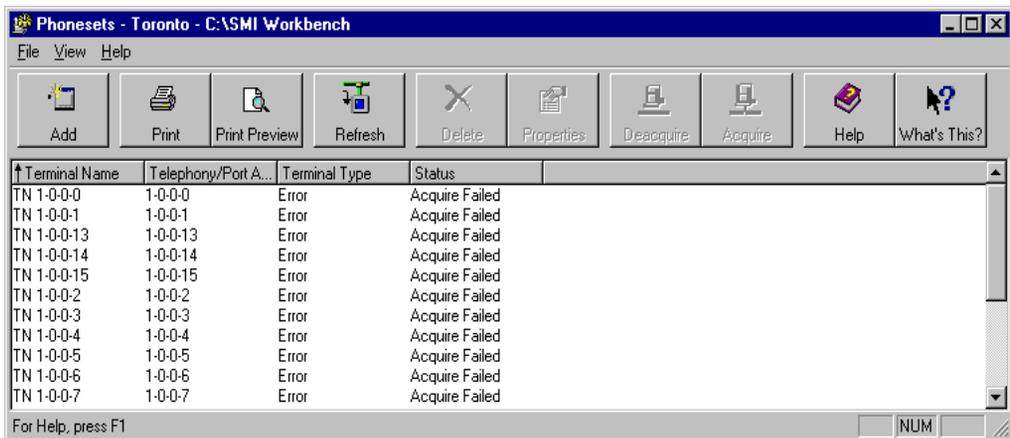
## Before you begin

Configure the phoneset on the switch. For more information, refer to the *Symposium, MI, and Voice Processing Guide*.

## To add a new phoneset

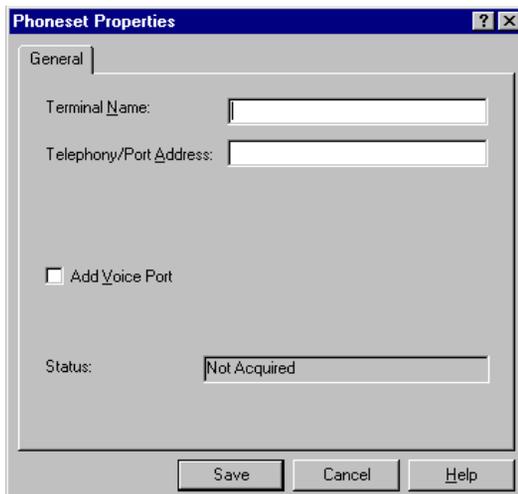
- 1 In the Administration window, double-click Phonesets.

**Result:** The Phonesets window appears.



- 2 Choose File → New.

**Result:** The Phoneset Properties property sheet appears.



- 3 Enter information into the following boxes:

**Terminal Name:** The name of the phoneset as it will appear on reports.

- 4 **Telephony/Port Address:** The terminal number (TN) of the set on the M1, M1 IE, or Succession CSE 1000. It should be added in I-s-c-u format (for example, 1-0-0-5). Ensure that the Add Voice Port box is unchecked.

- 5 Click Save.

**Result:** The phoneset is added to the list in the Phonesets window. It has the status Not Acquired.

- 6 To return to the SMI window, choose File → Close.

## After you finish

After adding the phoneset, you must acquire it so that the switch sends messages to the system when an agent logs on to the phoneset.

# Acquiring and deacquiring phonesets

## Introduction

You must acquire each phoneset, so that the switch sends a message to the system when an agent logs on to the phoneset.

**Note:** Nortel Networks recommends that you deacquire a phoneset before you configure it on the switch.

## Before you begin

Make sure that the phoneset is configured on the switch and has been added on Symposium Express Call Center (see “Adding phonesets” on page 189).

## To acquire or deacquire a phoneset

- 1 In the Administration window, double-click Phonesets.  
**Result:** The Phonesets window appears.
- 2 Select the phoneset you want to acquire or deacquire.
- 3 If you want to acquire the phoneset, choose File → Acquire. If you want to deacquire the phoneset, choose File → De-acquire.  
**Result:** The phoneset status changes to Acquired (or Deacquired) pending.
- 4 To refresh the phoneset status on the display, choose View → Refresh.

# Other procedures for phonesets

## To change the name of a phoneset

### Notes:

- You must deacquire a phoneset before you change its properties.
- You cannot change the telephony/port address assigned to a phoneset. To change these properties, delete the phoneset and recreate it.

In the Phonesets window, select the phoneset you want to change, and then choose File → Properties.

For step-by-step instructions, press F1 to access the online Help.

## To preview the list of phonesets

From the Phonesets window, choose File → Print Preview.

For step-by-step instructions, press F1 to access the online Help.

## To print the list of phonesets

From the Phonesets window, choose File → Print.

For step-by-step instructions, press F1 to access the online Help.

## To delete a phoneset

### Notes:

- Before deleting the phoneset from the system, ensure that the phoneset status is either Not-Acquired, Deacquire Failed, or Acquired-Failed. You cannot delete a phoneset if it is Acquired.
- This procedure does not delete the phoneset from the switch.
- If this phoneset is a voice port type, the associated voice port is also deleted.

In the Phonesets window, select the phoneset you want to delete, and then choose File → Delete.

For step-by-step instructions, press F1 to access the online Help.

## To modify a phoneset

**Note:** If you need to modify, upgrade, or reconfigure a phoneset, you must ensure it is deacquired, and removed from Symposium Express Call Center and from the M1, M1 IE, or the Succession CSE 1000 switch. Simply removing the phoneset from the ACD queue can lead to ACD corruption.

- 1 Deacquire the phoneset (see “Acquiring and deacquiring phonesets” on page 191).
- 2 Delete the phoneset from Symposium Express Call Center (see “To delete a phoneset” on page 192).
- 3 Remove the phoneset from the switch (see *Software Input X11 Administration Guide* [NTP 553-3001-311]).
- 4 Modify or reconfigure the phoneset on the switch (see *Software Input X11 Administration Guide* [NTP 553-3001-311]).
- 5 Configure the phoneset on the switch (see *Software Input X11 Administration Guide* [NTP 553-3001-311]).
- 6 Add the phoneset on Symposium Express Call Center (see “Adding phonesets” on page 189).
- 7 Reacquire the phoneset (see “Acquiring and deacquiring phonesets” on page 191).
- 8 Log on to the phoneset, test it, and log off.

**Note:** After testing, ensure the phoneset is logged off if the Call Center is in Night Service. If the set is logged on, calls will be routed to that skillset.



## Section C: Working with activity codes

### In this section

Overview of activity codes	196
Adding activity codes	198
Other procedures for activity codes	200

# Overview of activity codes

## Introduction

An activity code is 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 the various types of incoming calls. You can generate reports based on activity codes.

Even if there are no activity codes set up on the server, you can still generate reports statistics attributed to the activity code numbers entered. However, these reports do not contain a mapping of activity code names to activity code numbers.

## Example

When James Jones answers Sandra's call, he does not need to enter an activity code. The default activity code for the skillset (Europe) is used.

Similarly, if James receives a call for the Vacations skillset, he usually does not have to enter an activity code. The default activity code for that skillset is automatically used. However, BestAir currently has a new ad campaign. Agents have been instructed to ask all callers to the Vacations skillset the question, "How did you hear about us?" Agents then enter the following activity codes, depending on the response they receive:

---

4597	newspaper
4598	radio
4599	television

---

Call center management can generate activity code reports to determine which advertising medium is most effective.

## Default activity codes

There are two default activity codes in Symposium Express Call Center—the system default and the skillset default.

---

### Activity code

0	system default
00	skillset default

---

If an agent does not press the activity code key during a call, then the call is automatically assigned the system default activity code. If an agent presses the activity code key twice during a call, then the call is assigned the skillset default activity code.

## Activity code reports

You can generate reports based on activity codes. For more information, refer to the *Reports and Displays Guide*.

## Not Ready reason codes

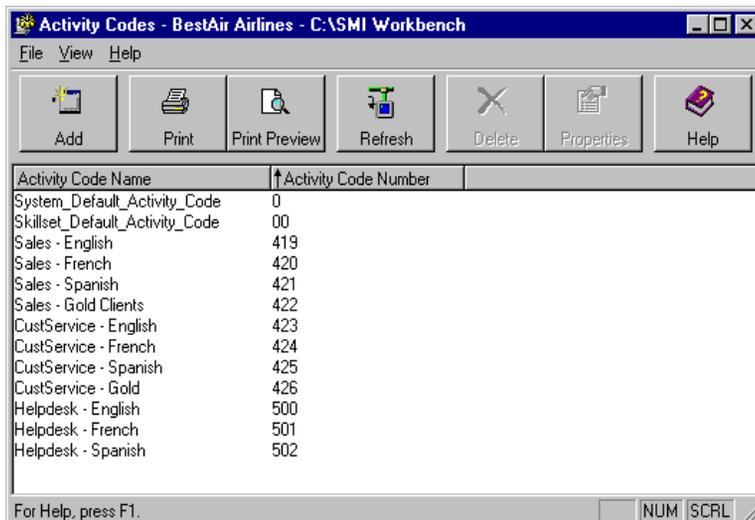
A Not Ready reason code is a number that an agent enters on the phoneset keypad when going into the Not Ready state. This number identifies the reason for the Not Ready state. The server uses the Not Ready reason codes to track the amount of time spent on various activities.

# Adding activity codes

## To add activity codes

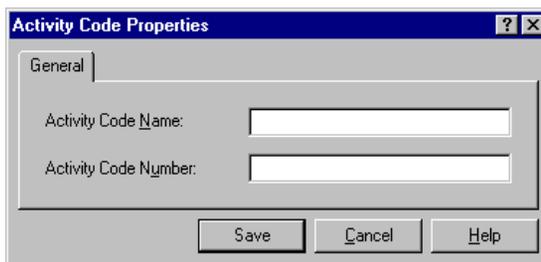
- 1 Log on to Symposium Express Call Center as the customer administrator.
- 2 In the Administration window, double-click the Activity Codes icon.

**Result:** The Activity Codes window appears.



- 3 Choose File → New.

**Result:** The Activity Code Properties property page appears.



- 4 For Activity Code Name, enter a name for the activity code.
- 5 For Activity Code Number, enter a number for the activity code.

**6** Click Save.

**Result:** The activity code appears in the Activity Codes window.

**7** Repeat steps 3 to 6 for each activity code that you want to add.

**8** Click Refresh on the toolbar of the Activity Codes window.

# Other procedures for activity codes

## To change the name of an activity code

**Note:** You cannot change the number assigned to an activity code once it has been saved. To change the number, delete the activity code and recreate it with a new number.

In the Activity Codes window, select the activity code you want, and then choose File → Properties.

For step-by-step instructions, press F1 to access the online Help.

## To preview a list of activity codes

From the Activity Codes window, choose File → Print Preview.

For step-by-step instructions, press F1 to access the online Help.

## To print a list of activity codes

From the Activity Codes window, choose File → Print.

For step-by-step instructions, press F1 to access the online Help.

## To delete an activity code

**Note:** You cannot delete the system default and the skillset default activity codes.

From the SMI window, in the Activity Codes window, select the activity code you want to delete, and then choose File → Delete.

## Section D: Working with DNISs

### **In this section**

Overview of DNISs	202
Adding DNISs	203
Other procedures for DNISs	205

# Overview of DNISs

## Introduction

A dialed number identification service (DNIS) is a method by which the system recognizes the phone number dialed by the incoming caller. Agents can receive calls from customers calling in on different DNISs, and customize their response depending on the DNIS that appears on the phoneset display.

# Adding DNISs

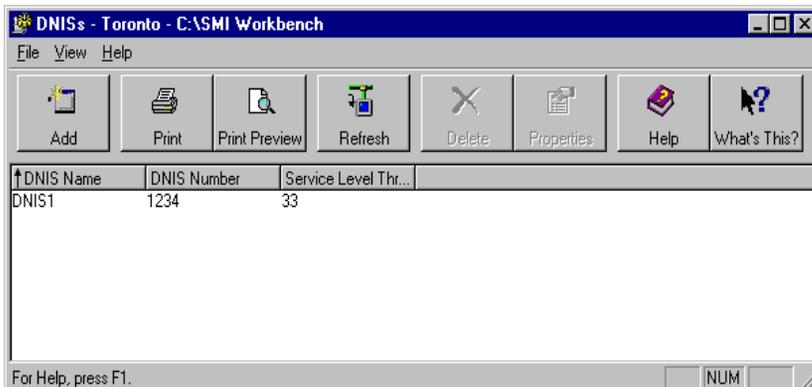
## Before you begin

Before you configure a new DNIS, ensure that the CDN, ACD-DN, or Supplementary DN is configured on the switch. For more information, refer to the *Symposium, M1, and Voice Processing Guide*.

## To add a DNIS

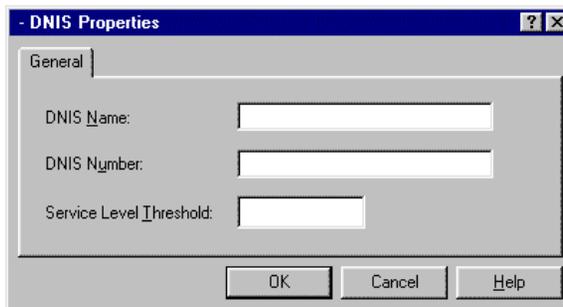
- 1 From the SMI window, choose Switch Administration → DNISs.

**Result:** The DNISs window appears.



- 2 Choose File → New.

**Result:** The DNIS Properties property page appears.



- 3 Complete the General property page by entering information into these boxes:
  - DNIS Name:** The name of the DNIS as it will appear on reports.
  - DNIS Number:** The ACD-DN or CDN number as it is configured on the switch.
  - Service Level Threshold:** Specify the time (in seconds) within which all calls coming through on this DNIS should be answered or abandoned. This threshold value is used in real-time displays.
- 4 Click Save.
  - Result:** The DNIS appears in the list in the DNISs window.

## Other procedures for DNISs

### To change the properties of a DNIS

**Note:** You cannot change the number assigned to a DNIS once it has been saved. You must delete the DNIS and recreate it with a new number.

In the DNISs window, select the DNIS you want to change, and then choose File → Properties.

For step-by-step instructions, press F1 to access the online Help.

### To preview the list of DNISs

From the DNISs window, choose File → Print Preview.

For step-by-step instructions, press F1 to access the online Help.

### To print the list of DNISs

From the DNISs window, choose File → Print.

For step-by-step instructions, press F1 to access the online Help.

### To delete a DNIS

In the DNISs window, select the DNIS you want to delete, and then choose File → Delete.

For step-by-step instructions, press F1 to access the online Help.



# Chapter 8

---

## Using the Alarm Monitor

### In this chapter

About the Alarm Monitor	208
Clearing active alarms	211

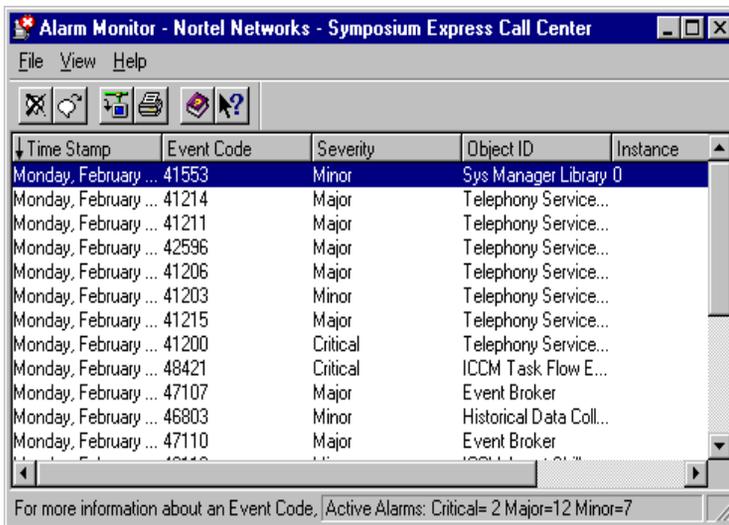
# About the Alarm Monitor

## Introduction

The Alarm Monitor opens automatically when you log on to Symposium Express Call Center using the customer administrator user ID.

**Note:** If you log on using a supervisor user ID, then you do not see the Alarm Monitor.

Symposium Express Call Center generates alarms to notify you when minor, major, and critical system events occur. When you log on to Symposium Express Call Center, the Alarm Monitor automatically opens.



The screenshot shows the 'Alarm Monitor - Nortel Networks - Symposium Express Call Center' window. It features a menu bar (File, View, Help) and a toolbar with icons for refresh, print, and help. The main area is a table with the following data:

Time Stamp	Event Code	Severity	Object ID	Instance
Monday, February ...	41553	Minor	Sys Manager Library 0	
Monday, February ...	41214	Major	Telephony Service...	
Monday, February ...	41211	Major	Telephony Service...	
Monday, February ...	42596	Major	Telephony Service...	
Monday, February ...	41206	Major	Telephony Service...	
Monday, February ...	41203	Minor	Telephony Service...	
Monday, February ...	41215	Major	Telephony Service...	
Monday, February ...	41200	Critical	Telephony Service...	
Monday, February ...	48421	Critical	ICCM Task Flow E...	
Monday, February ...	47107	Major	Event Broker	
Monday, February ...	46803	Minor	Historical Data Coll...	
Monday, February ...	47110	Major	Event Broker	

At the bottom of the window, a status bar displays: 'For more information about an Event Code, |Active Alarms: Critical= 2 Major=12 Minor=7'

You can use the Alarm Monitor to access, clear, and print system alarm information. The Alarm Monitor is not designed to record system operations.

## Alarm severity

Alarms have a severity of minor, major, or critical.

**Minor**

These events indicate that a fault condition exists that is not yet serious enough to affect service, and that you must take corrective action to prevent a more serious fault. For example, a minor alarm may indicate that the file system is 90 percent full.

**Major**

These events indicate that a service-affecting condition has developed and you must take urgent corrective action. The event condition can cause severe degradation in server performance, and you must restore full capacity. For example, a major alarm may indicate that the file system is 100 percent full.

**Critical**

These events indicate that a service-affecting condition has occurred and immediate corrective action is required. Critical events are reported when a component is completely out of service and you must take immediate action to restore it. For example, a critical alarm may indicate that the file system has crashed.

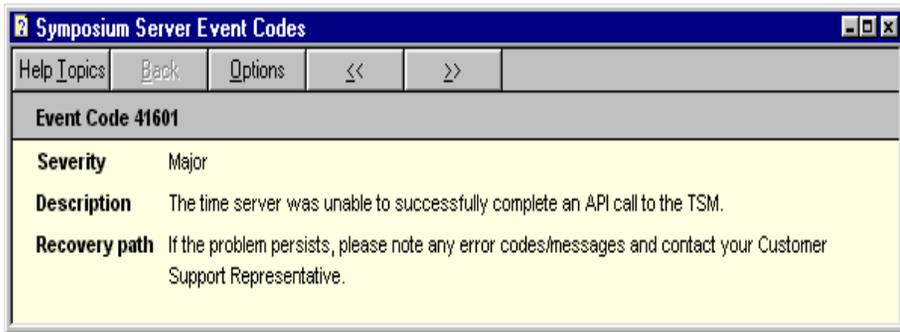
**To close the Alarm Monitor**

To close the Alarm Monitor for the rest of your online session, choose File → Exit. The Alarm Monitor opens again the next time you log on to Symposium Express Call Center.

**Note:** If you do not want to close the Alarm Monitor for the rest of your session, then you can minimize it instead. Otherwise, you must log off and log back on to view the Alarm Monitor again.

**To view more information about an alarm**

To open the online Help for an alarm, double-click its entry in the Alarm Monitor list, and then click Help. The online Help contains more information about each entry, including a recovery path to correct or further investigate the problem.



# Clearing active alarms

## When to use

The Alarm Monitor automatically clears active alarms when the condition that caused the alarm changes. You can also manually clear alarms before the problem is fixed to suit your operational requirements.

## Clearing alarms

Clear an alarm to remove the selected alarm from the Alarm Monitor. The event that triggered the alarm remains logged on the Event Browser. If the event occurs again or the condition that caused the alarm changes, then the alarm reappears in the Alarm Monitor.

## Example

At BestAir, an alarm appears with the description “Disk is 90% full.” Mark Brown, the system administrator, checks the system disk space, removes temporary files, and decides to order a larger hard drive. Only after Mark has resolved the problem does he clear the alarm from the Alarm Monitor.

## To clear alarms

- 1 In the Alarm Monitor, select the alarm that you want to clear.
- 2 Choose File → Clear Alarm.  
**Result:** A dialog box asks you to confirm that you want to clear the selected alarm.
- 3 Click Yes.  
**Result:** The alarm entry is removed from the Alarm Monitor.



# Chapter 9

---

## Performing backups

### In this chapter

Overview	214
Performing partial backups	216
Performing Voice Services backups	221

# Overview

## Introduction

There are three types of backups in Symposium Express Call Center:

- unscheduled and scheduled Symposium Express Call Center partial backups
- full backups
- Voice Services backups

Partial backups and Voice Services backups are typically performed by call center managers. Full backups are generally performed by distributors. For more information on full backups, refer to the *Symposium Express Call Center Planning, Installation, and Administration Guide*.

One of the important jobs of a call center manager is to perform partial backups. This backs up the Symposium Express Call Center database, which contains historical data, reports, and the current call center configuration. You do not have to shut down any services while the partial backup is running. Partial backups can either be scheduled or unscheduled, and they can be run while the call center is online.

**Note:** Since doing an online backup can have performance implications, backups should ideally be scheduled outside of call center hours. If a backup is required during call center hours, it should be run when the call center is least active.

Voice Services is a keycode-enabled option. If you have the Voice Services option, the call center manager must also back up the PCMCIA card and the Voice Services database. Based on the mechanism you use to back up Voice Services, you may be able to run the Voice Services backup while the call center is online. For more information, refer to “Performing Voice Services backups” on page 221.

## Restoring data

If you need to restore the Symposium Express Call Center database (partial restore) or the Voice Services PCMCIA card and database, or perform a complete restoration of your system after a system failure, refer to the *Symposium Express Call Center Planning, Installation, and Administration Guide*.

## What you need

Nortel Networks recommends that you use one of the following tape drives:

- Seagate STD28000N
- Tandberg MLR1
- Tandberg SLR4
- Tandberg SLR5
- Tandberg SLR50

## Head-cleaning kit

Nortel Networks recommends that you purchase a head-cleaning tape to prolong the life of your tape heads and ensure the quality of your backups. Clean the tape drives based on how often you use them.

<b>IF you use</b>	<b>THEN clean the tape heads</b>
1 tape per day	weekly.
2 tapes per day	every other day.
3 tapes per day	every other day.
4 or more tapes per day	daily.

For more information on head cleaning, refer to your head cleaning kit documentation.

# Performing partial backups

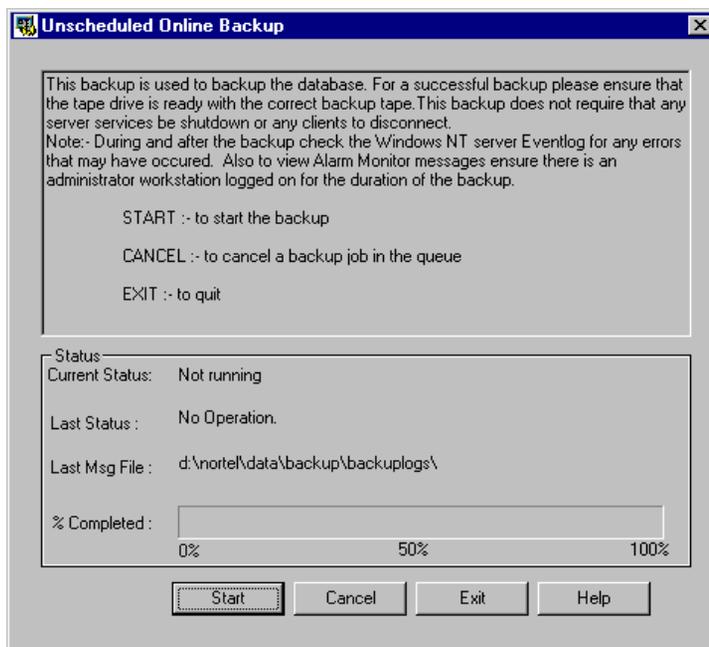
## Introduction

Nortel Networks recommends that you regularly perform a partial backup. If you make configuration changes to your system, such as changing or adding skillsets or the way calls are routed, then perform an additional backup to capture those changes.

## To perform an unscheduled online partial backup

- 1 Log on using the customer administrator or system administrator user ID.
- 2 Place a tape in the tape drive (of the server).
- 3 In the Administration window, double-click the Backup icon.

**Result:** The Unscheduled Online Backup dialog box appears.



- 4 To begin the backup process, click Start.

**Result:** The backup starts and runs until it is complete.

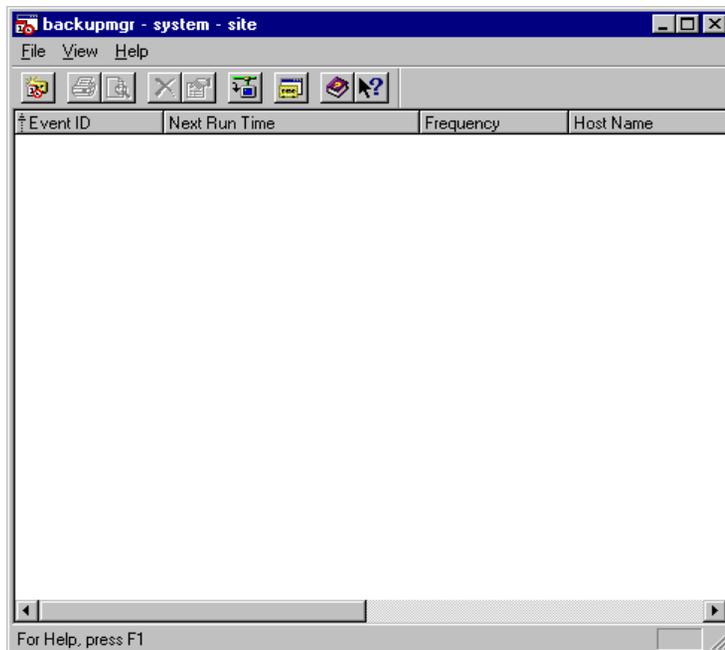
**Notes:**

- Use Cancel to cancel a job in queue. You cannot cancel a backup job while it is running.
- Last Msg File is a file created on the server that contains information on any errors that were encountered during the backup.

## To perform a scheduled partial backup

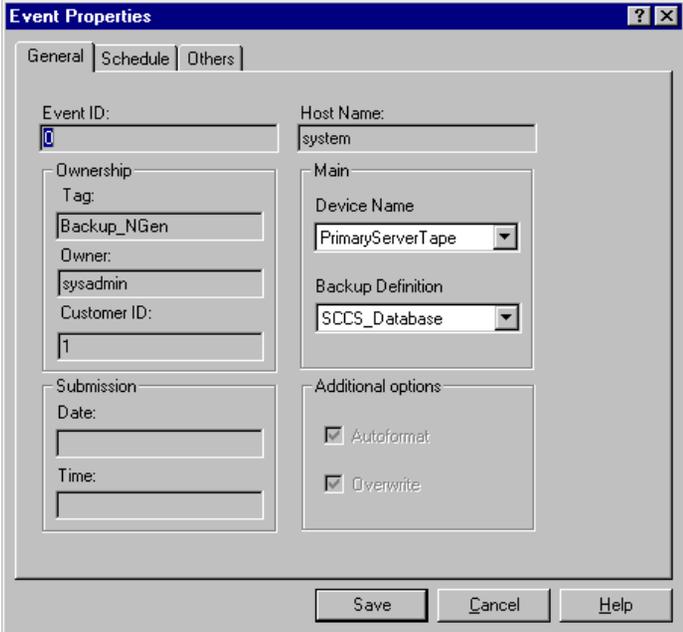
- 1 Log on to the client using the system administrator user ID.
- 2 Double-click Advanced Functions.
- 3 Click System Administration.
- 4 Click Server backup.
- 5 Double-click Backup scheduler.

**Result:** The backupmgr - system - site window appears.



- Click the Create new scheduled backup icon (the icon on the far left).

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



The screenshot shows the 'Event Properties' dialog box with the 'General' tab selected. The dialog is divided into several sections:

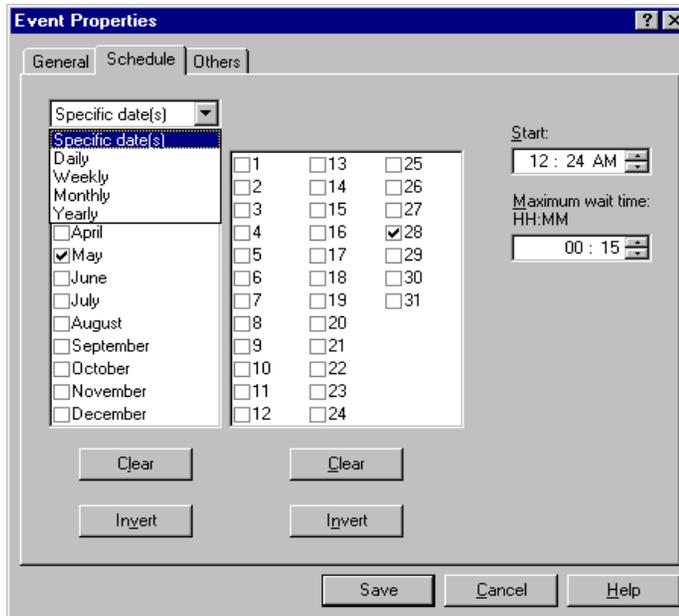
- General:** Event ID: 0, Host Name: system.
- Ownership:** Tag: Backup\_NGen, Owner: sysadmin, Customer ID: 1.
- Main:** Device Name: PrimaryServerTape (dropdown), Backup Definition: SCCS\_Database (dropdown).
- Submission:** Date: (empty), Time: (empty).
- Additional options:**  Autoformat,  Overwrite.

Buttons at the bottom: Save, Cancel, Help.

- In the Device Name drop-down box, choose the correct backup tape.
- In the Backup Definition drop-down box, choose SCCS\_Database, which is the only option.

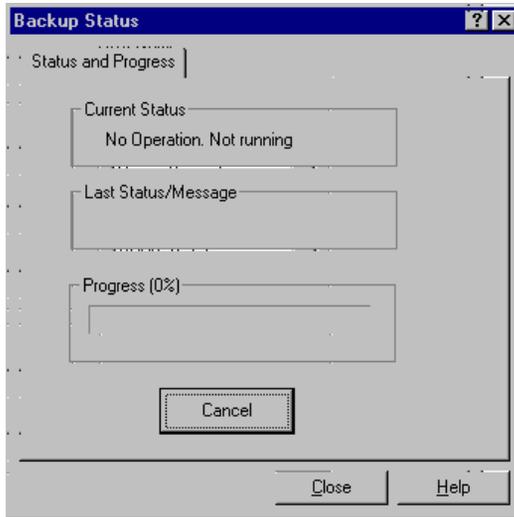
- 9 Click the Schedule tab.

**Result:** The following dialog box appears:



- 10 Specify the dates when you want the backup to run. You can select if you want the backup to run daily, weekly, monthly, yearly, or only on specific dates.
- 11 Enter a maximum wait time. If the backup fails to execute, this is the length of time before it will try to execute it again.
- 12 Click Save to schedule the backup.

When the backup is running, you can view its progress in the following dialog box:



# Performing Voice Services backups

## Recommendations

Perform a full Voice Services backup (the PCMCIA card and the Voice Services database) every time a full Symposium Express Call Center backup takes place. You should also do a full Voice Services backup every time you

- create new prompts
- change the treatment configuration (for example, make changes to a previously created voice menu)
- add, remove, or change Voice Services ports, either through a Voice Services data import or through the Switch Map section of the Voice Services Administration application



### CAUTION

---

#### Risk of malfunction

You must ensure that the PCMCIA card and the Voice Services database backups are versioned correctly. In the event that you must restore, it is important that both are from the same version. A mismatched PCMCIA card and database can lead to Voice Services not functioning.



### CAUTION

---

#### Risk of data loss

The Voice Services backup information will not reside on a DAT tape, so you must ensure that the backup files are stored in a secure location.

## Labeling the Voice Services backups

If you need to restore from Voice Services backups, it is important that you use a Voice Services PCMCIA card backup and a Voice Services database backup that was taken at the same time. Therefore, you must label the backups you take accordingly. Every time you take Voice Services backups, label them with the appropriate version, date, or both.

## To perform a Voice Services PCMCIA card backup

There are two ways to back up the Voice Services PCMCIA card:

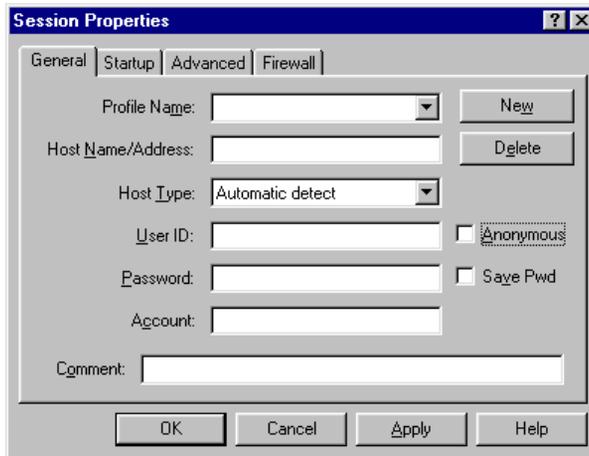
- using a third-party file transfer application
- using a computer with a PCMCIA card drive

Nortel Networks recommends that you use WS\_FTP Pro to back up the Voice Services PCMCIA card. For instructions on how to do this, refer to “To back up the Voice Services PCMCIA card using the WS\_FTP Pro application” on page 223. For instructions on backing up the PCMCIA card using a computer with a PCMCIA card drive, refer to “To back up the Voice Services PCMCIA card using a computer with a PCMCIA card drive” on page 225.

## To back up the Voice Services PCMCIA card using the WS\_FTP Pro application

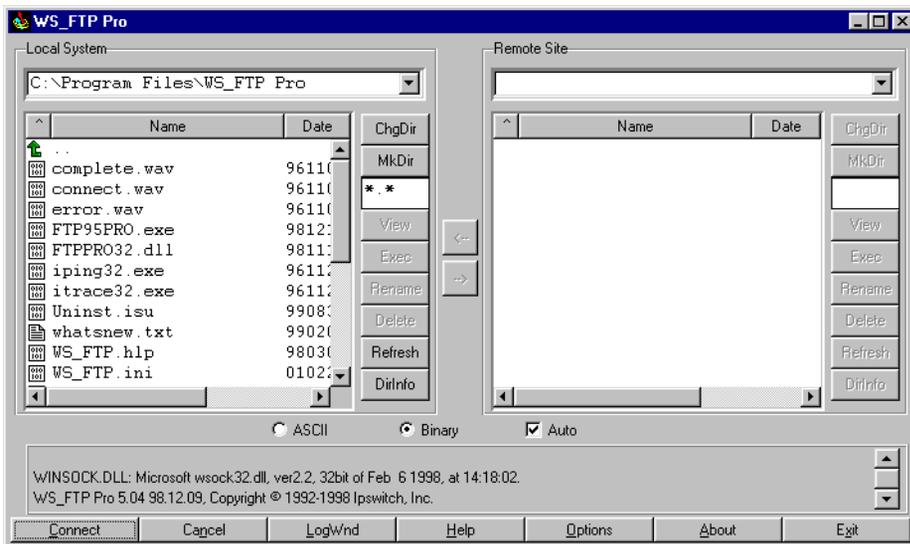
- 1 From the Symposium Express Call Center server PC, start the WS\_FTP Pro application.

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



- 2 Click New.
- 3 In the Profile Name box, enter a name.
- 4 In the Host Name/Address box, type **aaa.bb.ccc.ddd**, where *aaa.bbb.ccc.ddd* is the IP address of the Voice Services card.
- 5 In the User ID box, type **vpsdseuser**.
- 6 In the Password box, enter the appropriate password.
- 7 Click OK.

**Result:** The WS\_FTP Pro window appears.



- 8 In the Local System panel, navigate to the directory where you will store the backup.
- 9 In the Remote Site panel, ensure that the root directory (/A:) appears in the drop-down list. If it does not appear, navigate to that directory.
- 10 Select all the directories located in this directory.
- 11 Ensure that Binary and Auto are checked.
- 12 Click the left transfer button (the left arrow) to copy the files from the PCMCIA card to the backup location.  
**Result:** The message Do you want to transfer the selected folders and their contents? appears.
- 13 Click Yes.  
**Result:** The Voice Services PCMCIA card backup is now complete. Ensure that all backed-up files are stored at a secure location.

## To back up the Voice Services PCMCIA card using a computer with a PCMCIA card drive

This procedure assumes that you have the PCMCIA card in the faceplate slot (drive A). If this is not the case, you must disable the Voice Services card. For more information on disabling the Voice Services card, refer to the Distributor's Technical Reference (DTR).

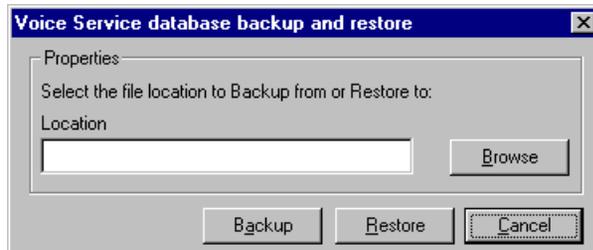
- 1 Shut down the VS service using the Voice Services monitor.
- 2 Remove the PCMCIA card from the Voice Services card.
- 3 Insert the PCMCIA card into the PCMCIA adapter slot on your computer.  
**Result:** The card appears as the next available drive in Windows Explorer. It can be accessed as any other drive on the computer.
- 4 Copy all files and directories from the PCMCIA card to the backup location on the computer. Ensure that the backed up files are held at a secure location.
- 5 Remove the PCMCIA card from your computer and replace it on the Voice Services card slot.
- 6 Restart the VS service.

## To back up the Voice Services database

Nortel Networks recommends that you back up the Voice Services database to two separate floppy disks in case of a catastrophic failure. In addition, Nortel Networks recommends that you also back up the Voice Services database to an appropriate area of the Symposium Express Call Center server's hard disk.

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

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



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



### CAUTION

#### Risk of data loss

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

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



# Appendix A

---

## Agent phoneset keys

### In this appendix

The Display Waiting Calls key/lamp	230
Unsupported agent phoneset keys	235

# The Display Waiting Calls key/lamp

## Introduction

Symposium Express Call Center supports the Display Waiting Calls (DWC) key. This feature displays skillset information when the DWC key on an agent's phoneset is pressed. This information is different from the DWC feature used with the Meridian 1 ACD environment.

## Agent phoneset display

The following information displays on a Symposium Express Call Center agent's phoneset (the "DWC agent") when the agent presses the DWC key:

*AAA BBB CCC*, where

- *AAA* is the sum of the numbers of calls waiting in each skillset to which the DWC agent is currently logged on. A call is counted more than once if it is queued to more than one of the skillsets to which the DWC agent is logged on.
- *BBB* is the sum of the number of agents logged on to each skillset to which the DWC agent is currently logged on. An agent is counted more than once if logged on to more than one of the skillsets to which the DWC agent is logged on.
- *CCC* is the waiting time, in seconds, of the oldest call in all of the skillsets to which the DWC agent is logged on.

## Supervisor phoneset display

The DWC key and associated lamp configured on a supervisor's phoneset do not support the display of any Symposium Express Call Center skillset information. If you press the DWC key on a supervisor's phoneset, it shows ACD queue information for that supervisor, just as it currently does. The lamp also responds to ACD queue loading and activity for that supervisor, as determined by the Meridian 1 configuration. Calls are not normally queued to ACD queues for

Symposium Express Call Center; therefore, the primary uses of this feature for Symposium Express Call Center supervisors are when the call center is handling Network ACD calls or operating in default mode and the Meridian 1 ACD features are routing the calls.

## Skillset information

Skillset information display is only available on phonesets that have numeric display capabilities. Phonesets without numeric displays cannot get skillset information by any other means (for example, no audible tones).

## Display format

The information displays with spaces between the fields. Three digits display data for the smallest phoneset display type of  $1 \times 12$ . For phoneset displays larger than  $1 \times 12$ , four digits display the data. The maximum displayable number of calls in queue is 9999, and the maximum number of agents that Symposium Express Call Center currently supports is 75. The maximum displayable amount of time that a call can be in queue is 9999 seconds or 2.78 hours. The following table summarizes the display types and field width for phonesets that display DWC key information:

### DWC key phoneset display type and field width

Display type	AAA	BBB	CCC
$1 \times 12$	3 digits	3 digits	3 digits
$1 \times 16$	4 digits	4 digits	4 digits
$1 \times 40$	4 digits	4 digits	4 digits
$2 \times 24$	4 digits	4 digits	4 digits

## Sample phoneset displays

The displays illustrated in this section indicate the lengths and positions of the various fields for each supported display configuration.

**Notes:**

- No more than four digits display per field.
- “n” illustrates the full width of a field.
- Leading zeros display as blanks.

**1 × 12 character displays**

	1	2	3	4	5	6	7	8	9	10	11	12
1	n	2	3		n	1	7		1	6	5	

**1 × 16 character displays**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	n	n	2	3		n	n	1	7		n	1	6	5		

**1 × 40 character displays**

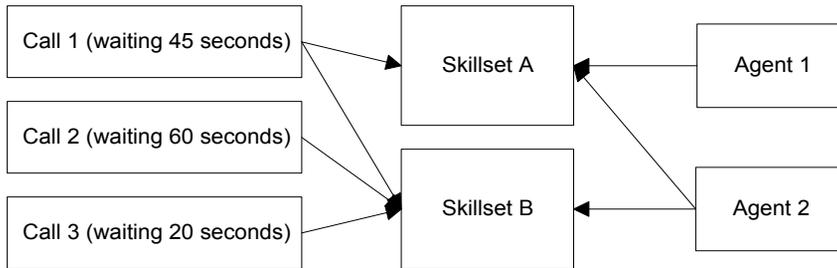
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	→	39	40
1	n	n	2	3		n	n	1	7		n	1	6	5			→		

**2 × 24 character displays**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	→	24
1	W	A	I	T	I	N	G		M	A	N	D		L	W	A	I	T	→	
2				n	n	2	3		n	n	1	7			n	1	6	5	→	

**DWC examples for agent phonesets**

Consider the following diagram with two agents logged on to two skillsets. Three calls are queued to the two skillsets:



The following display results when Agent 1 presses the DWC key:

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	...	24
1	W	A	I	T	I	N	G		M	A	N	D		L	W	A	I	T	°	
2							1					2					4	5	°	

The following display results when Agent 2 presses the DWC key:

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	...	24
1	W	A	I	T	I	N	G		M	A	N	D		L	W	A	I	T	°	
2							4					3					6	0	°	

### DWC key lamp

The DWC key lamp on a Symposium Express Call Center agent phoneset does not respond to calls in skillsets. It always remains dark in relation to skillset loading and activity. However, the lamp continues to respond to the call loading and activity in any ACD queues to which the agent is logged on, as determined by the configuration on the Meridian 1. Calls are not normally queued to ACD queues for Symposium Express Call Center; therefore, the primary use of this feature for agents is when the call center is handling Network ACD calls or operating in default mode and the Meridian 1 ACD features are routing the calls. When the agent presses the DWC key, the agent phoneset display shows Symposium Express Call Center skillset information as detailed in the previous section.

## **ACD Waiting Calls key/lamp**

The ACD Waiting Calls (AWC) key/lamp is not supported in Symposium Express Call Center to indicate skillset information. Any AWC key/lamp defined on an agent's or supervisor's phoneset indicates information on the ACD DN for the phoneset, as configured on the Meridian 1.

# Unsupported agent phoneset keys

## Unsupported keys

Symposium Express Call Center does not support the following keys or report on them:

- Hotline
- Private line
- Voice call
- Dial Intercom



# Appendix B

---

## Call-flow examples

### In this appendix

Overview	238
Call-flow examples	241

# Overview

## ATTENTION

---

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

## Introduction

This chapter describes the operation of the prompt/collect digits feature through

- the integration of Voice Services data and the TAPI server
- two call-flow examples

These examples demonstrate how a prompt/collect digits treatment is integrated into a call center, highlighting the interaction between Voice Services, the TAPI server, and the Voice Services card.

**Note:** For information on how to configure Voice Services treatments, see Chapter 5, “Configuring Voice Services.” For information on call treatments and call routing, see Chapter 6, “Configuring call treatments and call routing.”

## Component integration

The prompt/collect digits feature involves the following four components:

1. Symposium Express Call Center. Prompt/collect digits functionality is provided by the Symposium Express Call Center server using a new server .DLL file (IVRConnection.DLL). This library file provides a direct connection from Voice Services to the TAPI server.
2. Voice Services card (loadware version 1.06). Digits are collected on the Voice Services card.
3. Nortel Symposium TAPI Service provider 2.3. This is installed on a separate server. It can coexist with the Symposium Agent server.
4. Symposium Agent software client and server. Symposium Agent software can be used to incorporate screen pop functionality.

## Voice Services data and the TAPI server

To use the prompt/collect digits feature, you must have Symposium TAPI Service provider and Symposium Agent installed, or another agent software that is compatible with Symposium TAPI Service provider. The prompt/collect digits treatment can be used to send collected digits to a TAPI server to enable a data screen pop (for example, using Symposium Agent software).

### Sending data to TAPI server

The file TAPIIvrConnection.dll ensures that data is sent successfully to the TAPI server. It provides a selection of APIs that are used by the Voice Services service to establish and maintain a connection to TAPI Service provider, and also to construct call data messages to enable digit transfer from Voice Services and TAPI Service provider.

### TAPI SP IVR Messages

There are two primary messages used by Voice Services to communicate call data to TAPI:

- IVRCallerData
- IVRCallerDataResponse

### IVRCallerData

The IVRCallerData message is used to send the Voice Services data to the TAPI server. It is sent from Voice Services to the IVR Driver NLM. This message is constructed by Voice Services containing the following elements:

Information element	Description
Message Header	Contains general Message header information.
Network Call ID IE	This is the call ID assigned to the call as used by Express Call Center.
Origination Address IE	This field is not required as the Network call ID has been provided above.

Information element	Description
User Data IE	The actual data collected from the caller.
Message Type	The message type is defined as: 02 01 (Hex) - IVR Call Data.

### IVRCallerDataResponse

The IVRCallerDataResponse message represents the response from TAPI Service provider to the call data request. This is the response received by Voice Service after making the IVRCallerData request. Voice Services examines the information elements in case of error or failure.

Information element	Description
Message Header	Contains general Message header information.
Result IE	Result of the IVRCallerData request.
Cause IE	Will only be used if the result is a failure (that is, is equal to 1).
Message Type	The message type is defined as: 02 02 (Hex) - IVR Call Data Response.

For more information on the TAPI Service Provider, see the *Nortel Networks Symposium TAPI Service Provider's Programmers Guide*, and the *Nortel Networks Manager's Guide for the Symposium TAPI Service Provider for Meridian*.

# Call-flow examples

**ATTENTION**

---

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

This section provides a detailed view of how the prompt/collect digits feature operates. It highlights the main interactions between the Voice Services card and the TAPI server. For more information, see Chapter 5, “Configuring Voice Services.” For information on call treatments and call routing, see Chapter 6, “Configuring call treatments and call routing.”

## Front ending example

### Configuration details

In the call-flow example on page 244, the following configuration was used:

The number for the Voice Services IVR Queue is 6001. The number for the Symposium Express CDN is 4000.

The call center is configured with one agent logged on to the system with a priority of 1 for the sales skillset. The agent is idle (that is, in an idle state). The sales skillset has been assigned to CDN 4000 using the call routing wizard.

Two prompt/collect digits treatments were created and recorded, Treatment 1000 and Treatment 1001. Both have verification prompts enabled and recorded. See the Properties - Treatment dialog box on the next page for the Treatment 1000. This treatment collects digits for the customer’s number. Treatment 1001 collects digits for the customer’s bank account number. See the Properties - Treatment dialog box on page 243.

The details of Treatment 1000 are illustrated in this dialog box.

**Properties - Treatment** [X]

General Properties

Treatment ID:

Name:

Location:

Card Name:  Language:

Description:

Recorded:

Type

Transfer to ==>> DN

Comfort Message

Prompt/Collect Digits  Verify

Voice Menu  SECC Controlled

Timeout Behaviour:

Menu Repeat:  First Digit Timeout:

Default DN

Return To Queue

After Treatment

Treatment Type:  Treatment ID:

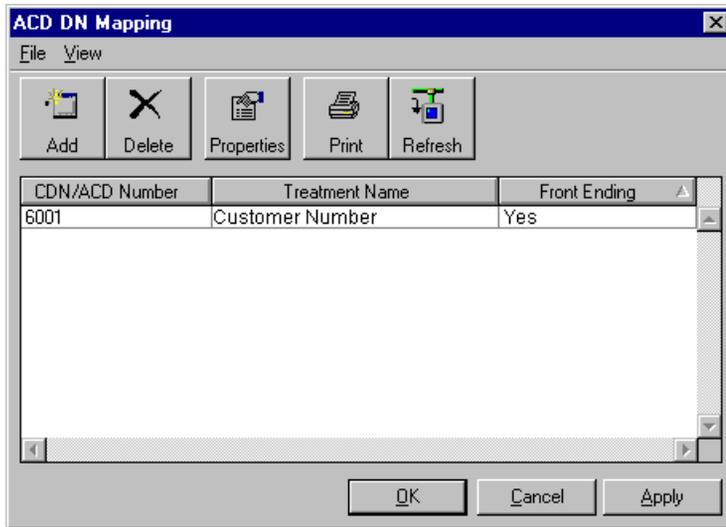
The next Properties - Treatment dialog box illustrates the details of Treatment 1001.

The screenshot shows a dialog box titled "Properties - Treatment" with a close button (X) in the top right corner. The dialog is organized into several sections:

- General Properties:**
  - Treatment ID: 1001
  - Name: Account Number
  - Location: /A:/bank/100.SBC (with a Browse button)
  - Card Name: LabTest (dropdown) Language: English (dropdown)
  - Description: Collects bank account Number
  - Recorded:
- Type:**
  - Transfer to ==> DN
  - Comfort Message
  - Prompt/Collect Digits  Verify
  - Voice Menu  SECC Controlled
  - Buttons: Rec (red circle), Play (black triangle), Stop (black square)
- Timeout Behaviour:**
  - Menu Repeat: 1 (dropdown) First Digit Timeout: 3 (dropdown)
  - Default DN: 4445
  - Return To Queue
- After Treatment:**
  - Treatment Type: Transfer to (dropdown) DN: 4000

At the bottom of the dialog are three buttons: OK, Cancel, and Apply.

Treatment 1000 is set as front ending and associated to queue 6001.

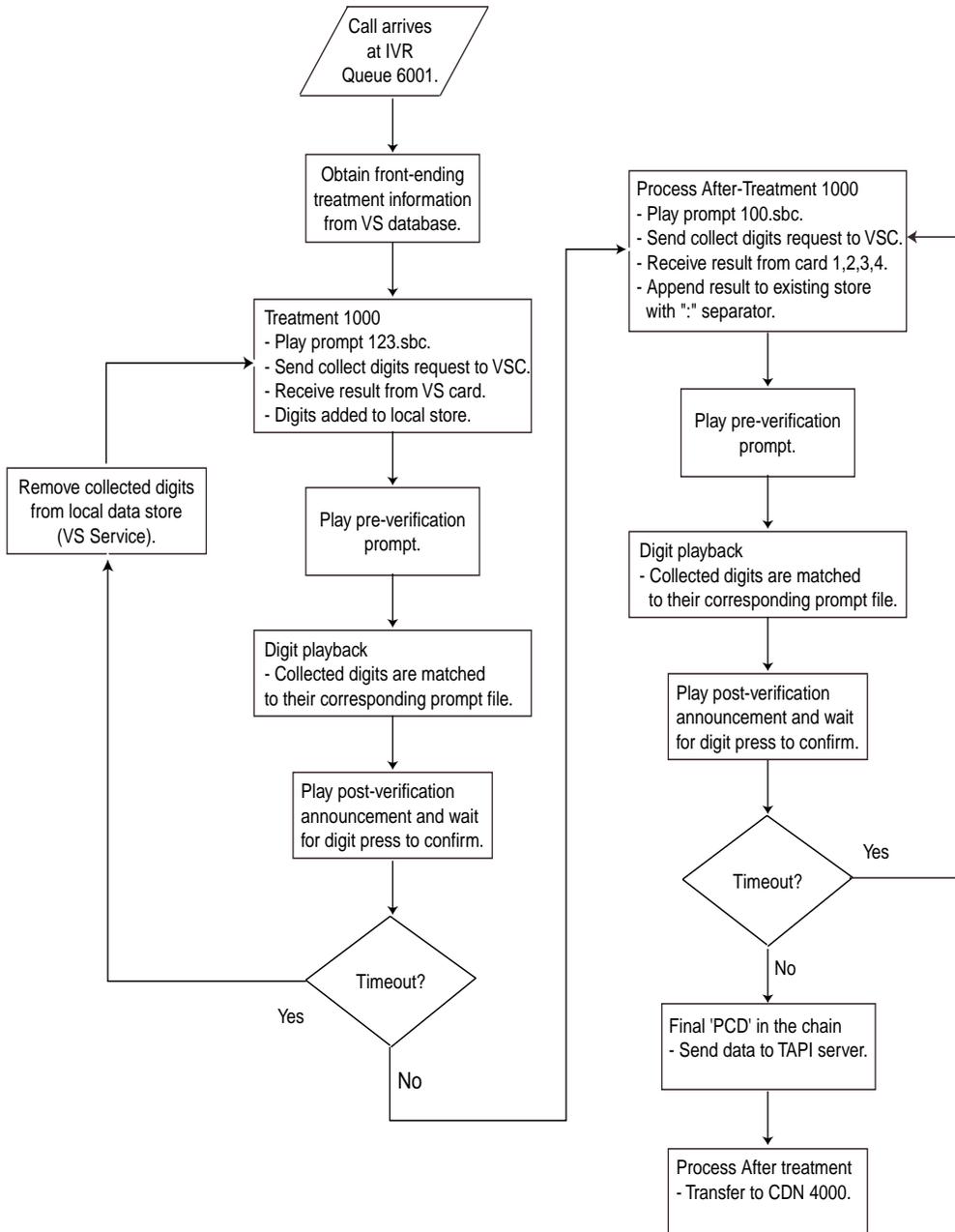


## Call process

1. A call arrives at Symposium Express Call Center to the front ending Voice Services IVR Queue.
2. Treatment 1000 asks for the customer's number.
3. The customer enters digits 1, 2, and 3, followed by the # key.
4. The digits are played (a verification prompt). The customer does not confirm.
5. The caller waits on the line for the digits to be repeated.
6. Time-out occurs. The digits are removed from the local data store (Voice Services).
7. The digits are replayed to the caller.
8. The caller enters a new set of digits—4, 0, 4, and 0.
9. These digits are replayed.

10. The caller confirms that the digits are correct. The local data store now contains the digits 4, 0, 4, and 0.
11. Treatment 1001 asks for the customer's bank account number.
12. The caller enters digits 1, 2, 3, and 4 for the bank account number.
13. These digits are replayed to the caller.
14. The caller confirms that the digits are correct.
15. The digits 1, 2, and 3 are appended to the first set of digits 4, 0, 4, and 0, with a separator, and the sequence 4040:123 is sent to the TAPI server.
16. The call is transferred to CDN 4000 (as defined by the after-treatment for Treatment 1001) and routed to an agent.

The call flow is illustrated on the next page.



## SECC Controlled example

### Configuration details

In the call-flow example on page 250, the following configuration was used:

The number for the Voice Services IVR Queue is 6001. The number for the Symposium Express CDN is 4000.

The call center is configured with one agent logged on to the system with a priority of 1 for the sales skillset. The agent is idle (that is, in an idle state). The sales skillset has been assigned to CDN 4000 using the call routing wizard.

Two prompt/collect digits treatments were created and recorded. Treatment 1000 collects the customer's account number, but does not verify any collected digits. Treatment 1001 collects the customer's bank account number and verifies the collected digits.

An SECC Controlled call treatment is created and has the Treatment 1000 included as a greeting announcement.

See the Properties - Treatment dialog box on page 249 for Treatment 1000. This treatment collects digits for the customer's number. Treatment 1001 collects digits for the customer's bank account number. The Voice Services IVR Queue is supplied to the call treatment wizard, together with the Treatment 1000 ID.

For Treatment 1001, see the Properties - Treatment dialog box on page 250.

The Voice Services IVR Queue is supplied to the call treatment wizard along with Treatment 1000.

**Treatment vps1 : Announcements**



**SYMPOSIUM EXPRESS CALL CENTER**

What do you want your callers to hear while they are waiting in the queue ?

Announcements:

What type of announcements are you using?

BAN or MIRAN     
  Meridian Mail or IVR

Callers will be transferred to this number to hear announcements:

Play a greeting announcement      Greeting ID:

Play a wait announcement      First Wait ID:

Expected Wait Time     
  Position In Queue

Play a second wait announcement      Second Wait ID:

Play an out of hours announcement      Out Of Hours ID:

Play a busy announcement      In Hours Busy ID:

Select what you want your callers to hear between announcements.

Ringback Tone     
  Music, using route:

This Properties - Treatment dialog box shows the configuration for Treatment 1000.

The screenshot shows a dialog box titled "Properties - Treatment" with a close button (X) in the top right corner. The dialog is organized into several sections:

- General Properties:** Contains text boxes for "Treatment ID:" (1000), "Name:" (Customer Number), "Location:" (/A:/PCD/123.SBC) with a "Browse" button, "Card Name:" (LabTest) with a dropdown arrow, "Language:" (English) with a dropdown arrow, "Description:" (Collects Customer Number), and a checked "Recorded:" checkbox.
- Type:** Contains radio buttons for "Transfer to ==> DN" (empty), "Comfort Message", "Prompt/Collect Digits" (selected), and "Voice Menu". The "Prompt/Collect Digits" option has a "Verify" checkbox (unchecked) and a "SECC Controlled" checkbox (checked). To the right are "Rec" (red circle), "Play" (black triangle), and "Stop" (black square) buttons.
- Timeout Behaviour:** Contains "Menu Repeat:" (1) and "First Digit Timeout:" (3) dropdown menus. It also has radio buttons for "Default DN" (4445) and "Return To Queue".
- After Treatment:** Contains "Treatment Type:" (Prompt/Collect Digits) and "Treatment ID:" (1001) dropdown menus.

At the bottom of the dialog are "OK", "Cancel", and "Apply" buttons.

**Note:** Verify is not checked, and the treatment is SECC Controlled.

This Properties - Treatment dialog box shows the configuration for Treatment 1001.

The screenshot shows a dialog box titled "Properties - Treatment" with a close button (X) in the top right corner. The dialog is divided into several sections:

- General Properties:**
  - Treatment ID: 1001
  - Name: Account Number
  - Location: /A:/bank/100.SBC (with a Browse button)
  - Card Name: LabTest (dropdown) Language: English (dropdown)
  - Description: Collects bank account Number
  - Recorded:
- Type:**
  - Transfer to ==> DN [ ]
  - Comfort Message
  - Prompt/Collect Digits  Verify
  - Voice Menu  SECC Controlled
- Timeout Behaviour:**
  - Menu Repeat: 1 (dropdown) First Digit Timeout: 3 (dropdown)
  - Default DN: 4445
  - Return To Queue
- After Treatment:**
  - Treatment Type: Transfer to (dropdown) DN: 3001

At the bottom of the dialog are three buttons: OK, Cancel, and Apply. There are also three control buttons: a red circle labeled "Rec", a black triangle labeled "Play", and a black square labeled "Stop".

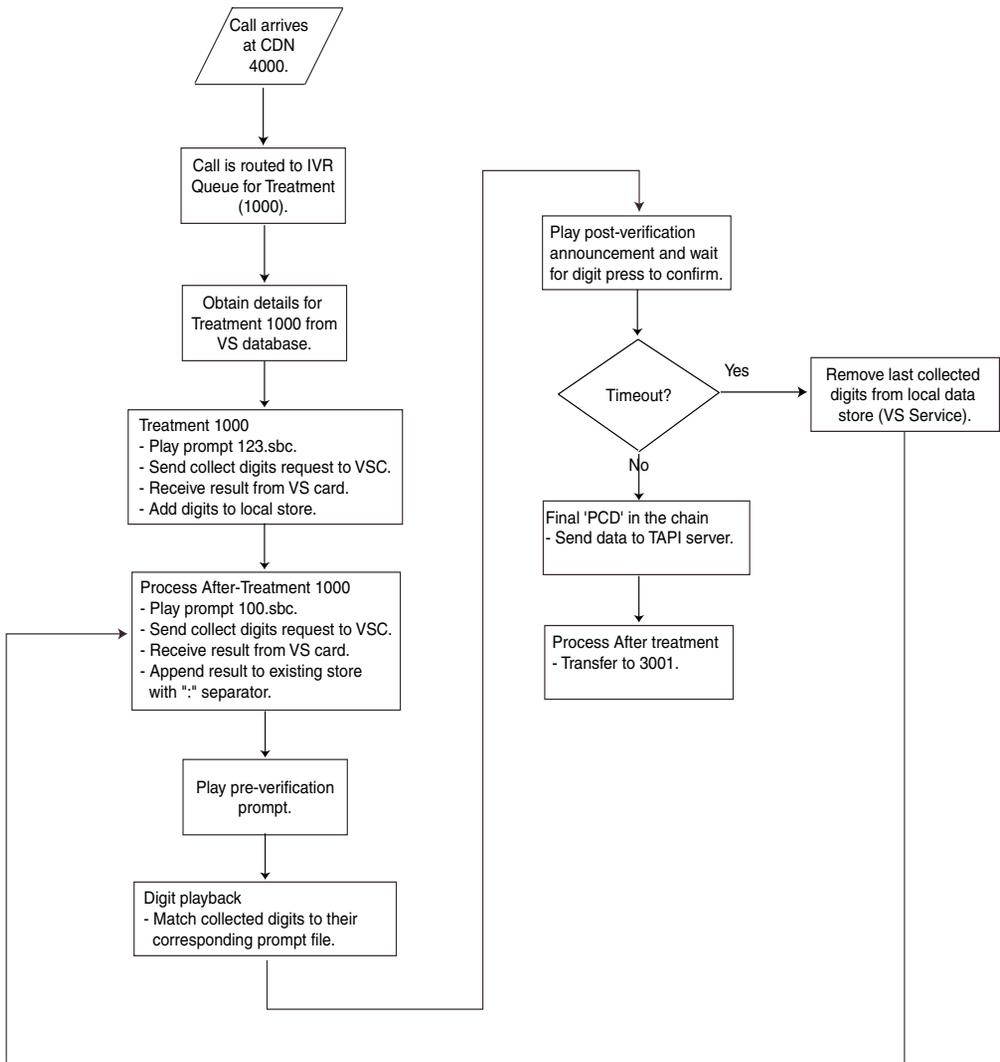
**Note:** Verify is checked. An after-treatment (Transfer to) is configured.

## Call process

1. A call arrives at the Symposium Express Call Center CDN 4000.
2. The call is presented with the Treatment 1000 greeting announcement.
3. Treatment asks for the customer's account number.
4. The caller enters digits 1, 2, and 3 followed by the # key.
5. Treatment 1001 asks for the customer's number.
6. The caller enters digits 1, 1, 1, and 1.

7. These digits are replayed to the caller.
8. The caller does not confirm.
9. Treatment 1001 again asks for the customer's number.
10. The customer enters a different set of digits—4, 4, 4, and 4 are entered.
11. These digits are replayed to the caller, and the caller confirms that they are correct.
12. The call is transferred to Queue 3001.

The call flow is illustrated on the next page.



# Appendix C

---

## Reserved words list

### In this appendix

Overview

254

# Overview

## Introduction

The following table lists words that are reserved for Symposium Express Call Center scripts. You must not use any of these words when naming skillsets, call treatments, or CDNs.

ABANDON	DISTURB	LOC	RECEIVED
ACD	DN	LOCATION	RELEASED
ACTIVE	DNIS	LOG	REMOVE
AGE	DO	LOGGED	REQUEST
AGENT	ELSE	LONGEST	RESPONSE
AGENTS	EMERGENCYTREAT MENT	MAR	ROUTE
AHEAD	END	MARCH	SATURDAY
AND	ENGLISH	MAY	SCRIPT
ANNOUNCEMENT	EQUALS	MONDAY	SECONDOVERFLOW
ANSWER	EVENT	MONTH	SECONDWAITANNO UNCEMENT
ANSWERED	EXECUTE	MOST	SECTION
APPLICATION	EXPECTED	MUSIC	SEGMENT
APR	FAIL	NACD	SEND
APRIL	FALSE	NAME	SEP
ASSIGN	FEB	NETWORK	SEPTEMBER
ASSIGNED	FEBRUARY	NIGHT	SERVICE

AUG	FIRSTWAITANNOUNCEMENT	NO	SESSION
AUGUST	FOR	NON	SET
AVERAGE	FOREVER	NONCONTROLLED	SILENCE
BROADCAST	FORWARD	NOT	SKILLSET
BUSY	FRENCH	NOV	SPANISH
BY	FRIDAY	NOVEMBER	SPEED
CALL	FROM	NPA	SUCCESS
CALLQUEUELOW	GERMAN	NPANXX	SUNDAY
CALLS	GET	NUMBER	TERMINATING
CDN	GIVE	NUMBERBYDIGIT	THEN
CDNTREATMENTASSIGNMENT	GREETING	NXX	THURSDAY
CHANGE	HANDLER	OCT	TIME
CHARACTER	HOLD	OCTOBER	TIMEOUT
CHINESE	ID	OF	TIMER
CLID	IDLE	OLDEST	TO
COLLECT	IF	ON	TOTAL
CONFERENCED	IN	OPEN	TRANSFERRED
CONSULTED	INCOMING	OUTOFHOURS	TREATMENT
CONTINUOUS	INFO	OVERFLOW	TREATMENTASSIGNMENTS
CONTROLLED	INHOURSOS	OVERFLOWTOLOWPRIORITY	TRUE
COUNT	INTER	PLAY	TUESDAY
DATA	INTERRUPTIBLE	PORTUGUESE	TYPE

DATE	INTERNATIONAL	POSITION	VALUE
DAY	INTO	PRESENT	VOICE
DEC	IVR	PRIORITY	WAIT
DECEMBER	JAN	PROMPT	WAITING
DEFAULT	JANUARY	QUEUE	WEDNESDAY
DEQUEUE	JAPANESE	QUEUECALL	WEEK
DIALED	JUL	QUEUED	WHERE
DIGIT	JULY	QUEUES	WHILE
DIGITS	JUN	QUIT	YEAR
DIRECT	LANGUAGE	RAN	
DISCONNECT	LEAST	RATE	

# Glossary

## A

### **accelerator key**

A key on a phoneset that an agent can use to place a call quickly. When an agent presses an accelerator key, the system places the call to the configured number associated with the key. For example, if an agent presses the Emergency key, the system places a call to the agent's supervisor.

### **access class**

A collection of access levels that defines the actions a member of the access class can perform within the system.

### **ACD call**

*See* Automatic call distribution call.

### **ACD-DN**

*See* Automatic call distribution directory number.

### **ACD routing table**

*See* Automatic call distribution routing table.

### **acquired resource**

A resource configured on the switch that is under the control of the Symposium Express Call Center server. Resources must be configured with matching values on both the switch and the Symposium Express Call Center server.

### **activated script**

A script that is processing calls or is ready to process calls. Before you can activate a script, you must first validate it.

### **activity code**

A number that an agent enters on his or her phoneset during a call. Activity codes provide a way of tracking the time agents spend on various types of incoming calls. For example, the activity code 720 may be used to track sales calls. Agents can then enter 720 on their phonesets during sales calls, and this information can be generated in an Activity Code report.

**agent**

A user who is responsible for handling customer calls.

**agent logon ID**

A unique identification number assigned to a particular agent. The agent uses this number when logging on. The agent ID is not associated with any particular phoneset.

**agent to skillset assignment**

A matrix that, when you run it, sets the priority of one or more agents for a skillset.

**Automatic call distribution call**

A call to an ACD-DN. ACD calls are distributed to agents in an ACD group based on the ACD routing table on the switch.

**Automatic call distribution directory number**

DNs associated with an ACD group. Calls made to these DNs are distributed to agents belonging to the group, based on the ACD routing table on the switch.

**Automatic call distribution routing table**

A table configured on the switch that contains a list of ACD-DNs used to define routes for incoming calls. This ensures that incoming calls not processed by Symposium Express Call Center are queued to ACD groups and handled by available agents.

**C****call age**

The amount of time a call was waiting in the system before being answered by an agent.

**call destination**

The site to which an outgoing network call is sent.

**call presentation class**

A collection of preferences that determines how calls are presented to an agent. A call presentation class specifies whether a break time between calls is allowed, whether calls can be presented to an agent whose secondary DN is active, whether an agent can put DN calls on hold for incoming ACD calls, and whether an agent phoneset displays that the agent is reserved for a network call.

**call priority**

A numerical value assigned in a script that defines the relative importance of a call. If two calls are in the queue when an agent becomes available, and one call is queued with a higher priority than the other, the agent receives the higher priority call first. *See also* skillset priority.

**call treatment**

The way Symposium Express Call Center handles a call while it is waiting to be answered by a call center agent. For example, a caller can hear a recorded announcement or music while waiting for an agent.

**Calling Line Identification**

This is an optional service that identifies the telephone number of the caller. This information can then be used to route the call to the appropriate agent or skillset. The CLID can also be displayed on an agent's phoneset.

**CDN**

*See* controlled directory number.

**CLAN**

*See* Customer local area network.

**CLID**

*See* Calling Line Identification.

**client**

The part of Symposium Express Call Center that runs on a personal computer or workstation and relies on the server to perform some operations. *See also* server.

**controlled directory number**

A special directory number that allows calls arriving at the switch to be queued when the CDN is controlled by an application such as Symposium Express Call Center. When a call arrives at this number, the switch notifies the application and waits for routing instructions, which are performed by scripts in Symposium Express Call Center.

**customer administrator**

A user who is responsible for maintaining Symposium Express Call Center.

**Customer local area network**

The LAN to which your corporate services and resources connect. Symposium Express Call Center and the client both connect to the CLAN. Third-party applications that interface with the server also connect to this LAN.

**D****DBMS**

Database Management System

**default activity code**

The activity code that is assigned to a call if an agent does not enter an activity code manually, or when an agent presses the activity code button twice on his or her phoneset.

**desktop user**

A configured user who can log on to Symposium Express Call Center from a client PC.

**DHCP**

*See* dynamic host configuration protocol.

**Dial-Up Networking**

*See* Remote Access Services.

**Dialed Number Identification Service**

An optional service that allows Symposium Express Call Center to identify the phone number dialed by the incoming caller. An agent can receive calls from customers calling in on different DNISs and, if the DNIS displays on the phoneset, can prepare a response according to the DNIS.

**directory number**

The number that identifies a phoneset on a switch. The directory number (DN) can be a local extension (local DN), a public network telephone number, or an automatic call distribution directory number (ACD-DN).

**directory number call**

A call that is presented to the DN key on an agent's phoneset.

**display threshold**

A threshold used in real-time displays to highlight a value below or above the normal range.

**DN**

*See* directory number.

**DN call**

*See* directory number call.

**DNIS**

*See* Dialed Number Identification Service.

**driver**

A program that controls a device. Each device, whether it is a printer, disk drive, or keyboard, must have a driver program. A driver acts like a translator between the device and the programs that use the device.

**dynamic host configuration protocol**

A protocol for dynamically assigning IP addresses to devices on a network.

**dynamic link library**

A library of executable functions or data that can be used by a Windows application. Typically, a DLL provides one or more particular functions, and a program accesses the functions by creating either a static or dynamic link to the DLL. A DLL can be used by several applications at the same time.

**E****ELAN**

*See* embedded local area network.

**embedded local area network**

A dedicated Ethernet TCP/IP LAN that connects Symposium Express Call Center and the switch.

**F****filter timer**

The length of time after the system unsuccessfully attempts to route calls to a destination site, before that site is filtered out of a routing table.

**first-level threshold**

The value that represents the lowest value of the normal range for a statistic in a threshold class. The system tracks how often the value for the statistic falls below this value.

**I****Interactive voice response**

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

**Interactive voice response ACD-DN**

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

**Interactive voice response event**

A voice port logon or logoff. An IVR event is pegged in the database when a call acquires or de-acquires a voice port.

**Internet Protocol address**

An identifier for a computer or device on a TCP/IP network. Networks use the TCP/IP protocol to route messages based on the IP address of the destination. For customers using NSBR, site IP addresses must be unique and correct. The format of an IP address is a 32-bit numeric address written as four numbers separated by periods. Each number can be 0 to 255. For example, 1.160.10.240 could be an IP address.

**IP address**

*See* Internet Protocol address.

**IVR**

*See* Interactive voice response.

**IVR ACD-DN**

*See* Interactive voice response ACD-DN.

**IVR event**

*See* Interactive voice response event.

**IVR port**

*See* voice port.

**L****LAN**

*See* Local area network.

**Local area network**

A computer network that spans a relatively small area. Most LANs connect workstations and personal computers and are confined to a single building or group of buildings.

**local call**

A call that originates at the local site.

**local skillset**

A skillset that can be used at the local site only.

**M****M1**

Meridian 1 switch

**Meridian Mail**

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

**MLS**

*See* Symposium Link Services.

**MM**

*See* Meridian Mail.

**music route**

A resource installed on the switch that provides music to callers while they wait for an agent.

**N****network interface card**

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

**NPA**

*See* Number Plan Area.

**Number Plan Area**

Area code

**O****out-of-service mode**

A skillset state in which the skillset does not take calls. A skillset is out of service if there are no agents logged on or if the supervisor puts the skillset into out-of-service mode manually.

**P****PBX**

*See* private branch exchange.

**pegging**

The action of incrementing statistical counters to track and report on system events.

**pegging threshold**

A threshold used to define a cut-off value for statistics, such as short call and service level. Pegging thresholds are used in reports.

**PEP**

*See* Performance Enhancement Package.

**Performance Enhancement Package**

A Symposium Express Call Center supplementary software application that enhances the functionality of previously released software by improving performance, adding functionality, or correcting a problem discovered since the original release.

**phoneset**

The physical device, connected to the switch, to which calls are presented. Each agent and supervisor must have a phoneset.

**phoneset display**

The display area on an agent's phoneset where information about incoming calls can be communicated.

**private branch exchange**

A telephone switch, typically used by a business to service its internal telephone needs. A PBX usually offers more advanced features than are generally available on the public network.

**R****RAN**

recorded announcement

**RAN route**

*See* recorded announcement route.

**RAS**

*See* Remote Access Services.

**recorded announcement route**

A resource installed on the switch that offers a recorded announcement to callers.

**Remote Access Services**

A feature built into Windows NT and Windows 95 that enables users to log on to an NT-based LAN using a modem, X.25 connection, or WAN link. This feature is also known as Dial-Up Networking.

**round robin routing table**

A routing table that queues the first call to the first three sites in the routing table, then the second three sites, then the third three sites, and so on, until an agent is reserved at one of the sites. *See also* sequential routing table.

**route**

A group of trunks. Each trunk carries either incoming or outgoing calls to the switch. *See also* music route, RAN route.

**routing table**

A table that defines how calls are routed to the sites on the network. *See also* round robin routing table, sequential routing table.

**S****SCM**

*See* Service Control Manager.

**script**

A set of instructions that relates to a particular type of call, caller, or set of conditions, such as time of day or day of week.

**second-level threshold**

The value used in display thresholds that represents the highest value of the normal range for a given statistic.

**senior supervisor**

A senior supervisor can perform all the tasks associated with a supervisor. However, senior supervisors can view all call center operations under the control of each supervisor as well as the configuration properties of all agents in the call center, not only the agents assigned to him or her. *See also* supervisor.

**sequential routing table**

A routing table method that always queues a call to the first three active sites in the routing table. *See also* round robin routing table.

**server**

A computer or device on a network that manages network resources. Examples of servers include file servers, print servers, network servers, and database servers. The Symposium Express Call Center server is used to configure the operations of the call center. *See also* client.

**service**

A process that adheres to a Windows NT structure and requirements. A service provides system functionality.

**Service Control Manager**

A Windows NT process that manages the different services on the PC.

**service level**

The percentage of incoming calls answered within a configured number of seconds.

**service level threshold**

A parameter that defines the number of seconds within which incoming calls should be answered.

**site**

A system using Symposium Express Call Center that can be accessed using SMI.

**skillset**

A group of capabilities or knowledge required to answer a specific type of call.

**skillset priority**

An attribute of a skillset assignment that determines the order in which calls from different skillsets are presented to an agent. When an agent becomes available, calls may be waiting for several of the skillsets to which the agent belongs. The server presents the call queued for the skillset for which the agent has the highest priority.

**supervisor**

A user who manages a group of agents. *See also* senior supervisor.

**switch**

The hardware that receives incoming calls and routes them to their destination.

**switch resource**

A device that is configured on the switch. For example, a CDN is configured on the switch, and then is used as a resource with Symposium Express Call Center. *See also* acquired resource.

**Symposium Express Call Center call**

A call to a CDN that is controlled by Symposium Express Call Center. The call is presented to the Incalls key on an agent's phoneset.

**Symposium Link Services**

A communications facility that provides an interface between the switch and a third-party host application.

**T****TCP/IP**

*See* Transmission Control Protocol/Internet Protocol.

**telephony**

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

**threshold**

A value for a statistic at which system handling of the statistic changes.

**threshold class**

A set of options that specifies how statistics are treated in reports and real-time displays. *See also* display threshold, pegging threshold.

**Transmission Control Protocol/Internet Protocol**

The communication protocol used to connect devices on the Internet. TCP/IP is the standard protocol for transmitting data over networks.

**treatment**

*See* call treatment.

**trunk**

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

**U****utility**

A program that performs a specific task, usually related to managing system resources. Operating systems contain a number of utilities for managing disk drives, printers, and other devices.

**V****voice port**

A connection from a telephony port on the switch to a port on the IVR system.

**Voice Services**

A Voice Services card installed in the Meridian 1 switch provides front-end voice processing capability to Symposium Express Call Center. The Voice Services card provides similar functionality to Meridian Mail; however, the Voice Services card enables you to play recorded announcements and voice menu options so that you can collect customer-entered data, or to inform callers of their position in queue or the amount of time they can expect to wait before their call is answered.

**W****WAN**

*See* Wide area network.

**Wide area network**

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

# Index

## A

- access class assigned to a user, changing the 78
- access rights
  - and using this guide 13
  - of different user types 62
- accessing
  - the server, using the MAT Navigator 40
- ACD DN
  - mapping Voice Services treatments 131
- ACD Waiting Calls (AWC) key/lamp 234
- acquiring
  - CDNs 185
  - phonesets 191
  - resources 178–179
- activity codes 195–200
  - adding 198–199
  - changing 200
  - deleting 200
  - previewing list of 200
  - printing list of 200
- Add Voice Port box 190
- adding
  - activity codes 198–199
  - agents 75
  - call treatments 146, 148
  - CDNs 183–184
  - DNISs 203
  - phonesets 189–190
  - skillsets 88
  - supervisors 72
  - users 72, 75
- After call, break for checkbox 54
- agent occupancy description 19
- agent phoneset 188
- agent phoneset display 230, 238
- agent phoneset display examples 232
- agent roaming 71
- agent to skillset assignments, configuring 91, 94
- agents

- adding new 75
- and skillset priority 92
- configuring agent to skillset assignments 91
- creating 75
- routing calls to specific agents 172

Alarm Monitor

- closing 209
- description 208
- Help 209
- hiding 209

alarms

- clearing 211
- critical 209
- investigating 209
- major 209
- minor 209
- recovery path for 209
- turning off 211
- viewing help for 209

announcements, and call routing 165

assignments, configuring agent to skillset 94

## B

- backup tapes, and head-cleaning kits 215
- backup types 214
- backups 216
  - overview 214
  - scheduled partial 217
  - unscheduled partial 216
  - Voice Services 221
  - Voice Services database 225
  - Voice Services PCMCIA card 222
- break time between calls 52

## C

- call 148

- call abandonment, description 19
  - call centers
    - components 18
    - functions of 18
    - overview 18
  - call flow illustration 171
  - call presentation
    - default configuration 51
    - options 50
  - call presentation classes
    - changing properties of 51
  - call presentation method, changing 52
  - call processing, description 19
  - call routing
    - and announcements 165
    - and skillset priorities 28–32
    - and skillset priority 173
    - description 143
    - example 164
    - illustration 168, 171
    - overview 164
  - call treatments
    - adding 146, 148
    - and upgraded servers 147
    - description 136
    - limitations 146
    - saved information from upgrades 147
  - Calling Line ID, description 25
  - CDN Name box 184
  - CDN Number box 184
  - CDNs 23, 181–186
    - acquiring 185
    - adding 183–184
    - changing 186
    - deacquiring 185
    - deleting 186
    - previewing list of 186
    - printing list of 186
  - changing
    - access class assigned to a user 78
    - activity codes 200
    - agent call presentation class properties 51
    - agent to skillset assignments 94
    - call presentation method 52
    - CDNs 186
    - DNISs 205
    - passwords 68
    - phonesets 192
    - skillset assignments 94
    - supervisor properties 78
    - user's general properties 78, 79
  - clearing alarms 211
  - CLIDs 25
  - closing, Alarm Monitor 209
  - Comments field 73
  - components of a call center 18
  - components of Symposium Express Call Center 33–34
  - configuring
    - agent to skillset assignments 91, 94
    - skillsets 49, 88
    - the server for the switch 40
    - users 69
  - Controlled Directory Numbers, description 23
  - controlled directory numbers. *See* CDNs 182
  - creating
    - agent user IDs 75
    - call treatments 146, 148
    - desktop shortcut 47
    - skillsets 88
    - supervisor user IDs 72
  - critical alarm severity level 209
  - customer administrator user ID, description 63
- ## D
- data, restoring 215
  - deacquiring
    - CDNs 185
    - phonesets 191
  - default
    - call presentation settings 51
    - passwords 65
  - default skillset
    - description 85
  - deleting
    - activity codes 200
    - CDNs 186
    - DNISs 205
    - phonesets 192, 193
    - skillsets 90

supervisors 79  
 users 79  
 Department field 73, 76  
 desktop passwords  
   changing 68  
   resetting 65  
 desktop, adding a shortcut to 47  
 Dialed Number Identification Service,  
   description 25  
 Dialed number identification services. *See*  
   DNISs  
 Display Waiting Calls key 230, 231, 232  
   and agent phoneset displays 230  
   and skillset information 231  
   and supervisor phoneset displays 230  
   display format 231  
 Display Waiting Calls lamp 230, 233  
 DNIS 25  
 DNIS Name box 204  
 DNIS Number box 204  
 DNISs 201–205  
   adding 203  
   changing 205  
   deleting 205  
   previewing list of 205  
   printing list of 205  
 DWC key. *See* Display Waiting Calls key

**F**

features, optional 13  
 First Name field 73, 76

**G**

getting started 11

**H**

head-cleaning kits 215  
 Help  
   for Alarm Monitor 209  
 hiding, Alarm Monitor 209  
 hold, placing calls on to answer incoming calls

52

**I**

icons, adding for Symposium Express Call  
   Center 47  
 Incoming call priority matrix 173  
 IVR ACD-DN description 24

**K**

keycoded features 13

**L**

Language field 73, 76  
 Last Name field 73, 76  
 logging on as system administrator 41  
 Login ID field 74, 77

**M**

major alarm severity level 209  
 managing security and users 59  
 mapping Voice Services treatments to ACD DN  
   131  
 Meridian Mail announcements, using 165  
 minor alarm severity level 209  
 MIRAN, using 165  
 modifying. *See* changing  
 multiple prompt/collect digits treatment 101

**O**

objectives, defining for scripts 167  
 occupancy description 19  
 optional features 13  
 overflow treatment  
   description 139  
 overview  
   of backups 214  
   of call centers 18

- of call presentation 50
- of call routing 164
- of managing security and users 60
- of skill-based routing 86
- of skillset priority 92
- of skillset use 84
- of switching and routing concepts 23
- of user types 62

## P

- partial backups 216
- passwords
  - changing 68
  - default 65
  - resetting 65
  - restoring default 65
- PC User ID field 74
- performing scheduled partial backups 217
- performing unscheduled partial backups 216
- Personal (Phantom) ext. field 74, 77
- phoneset description 24
- phoneset keys, unsupported 235
- phonesets 187–193
  - acquiring 191
  - adding 189–190
  - changing 192
  - deacquiring 191
  - deleting 192, 193
  - previewing list of 192
  - printing list of 192
- Play an Emergency announcement field 160
- Play an out of hours announcement field 151
- Position ID field 74
- previewing
  - list of activity codes 200
  - list of CDNs 186
  - list of DNISs 205
  - list of phonesets 192
- printing
  - list of activity codes 200
  - list of CDNs 186
  - list of DNISs 205
  - list of phonesets 192
- priorities

- and call routing 28–32
- priority, for skillsets 92
- privileges 13
- procedure
  - adding agents 75
  - adding skillsets 88
  - adding supervisors 72
  - changing passwords 68
  - changing supervisor properties 78
  - clearing alarms 211
  - closing the Alarm Monitor 209
  - configuring agent to skillset assignments 94
  - configuring call presentation 55
  - deleting supervisors 79
  - removing skillsets 90
- Prompt/collect digits
  - adding to other treatments 134
  - creating 119
- properties
  - changing for call presentation class 51
  - changing for supervisors 78

## Q

- queue description 19

## R

- RAN, using 165
- real-time displays, and supervisors 70
- removing
  - supervisor user IDs 79
- reporting supervisors 70
- reports, and supervisors 70
- resetting the desktop password 65
- resources, acquiring 178–179
- resources, identifying 168
- restoring data 215
- Route calls to this number field
  - and emergencies 160
  - and out-of-service hours 151
- Route calls to this skillset field 151
- routes description 23
- routing calls to a specific agent 172
- routing overview 23

- running
  - scheduled partial backups 217
  - unscheduled partial backups 216
- S**
- sample phoneset displays 231
- scheduled partial backups 217
  - performing 217
- scripts
  - objectives 167
- security, managing 59
- server
  - access rights 13
  - using MAT Navigator to access 40
- service level description 20
- Service Level Threshold box 204
- setup options
  - for Symposium Express Call Center 34
    - described 37
    - illustrated 35–36
- severity levels
  - critical 209
  - major 209
  - minor 209
- shortcuts, creating 47
- skill-based routing, example of use 86
- skillset assignments 94
  - changing 94
  - configuring 94
- skillset priorities
  - and call routing 28–32
- skillset priority
  - and call routing 173
  - description 92
  - example 92
- Skillset\_Default\_Activity\_Code 200
- skillsets
  - about 84
  - adding 88
  - configuring 49, 88
  - creating new 88
  - default 85
  - deleting 90
  - example of use 84

- priority 92
- starting
  - getting started 11
- supervisor capabilities, description 63, 64
- supervisor phoneset 188
- supervisors
  - adding 72
  - and real-time displays 70
  - and reports 70
  - changing user ID properties 78
  - creating 72
  - deleting 79
  - removing user IDs 79
  - reporting 70
- switch, configuring the server for the 40
- switching overview 23
- Symposium Express Call Center
  - components listed 33–34
  - setup options 34
    - described 37
    - illustrated 35–36
- system administrator, logging on as 41

## T

- tape drives, head-cleaning kit 215
- Telephony/Port Address box 190
- Terminal Name box 190
- Title field 73, 76
- TreatmentV1 147
- turning off alarms 211
- types of backups 214
- types of users 62

## U

- unscheduled partial backups 216
  - performing 216
- unsupported keys 235
- upgraded servers, and call treatments 147
- user IDs
  - creating for agents 75
  - creating for supervisors 72
  - custadmin 63
  - deleting supervisors 79

## users

- adding 72, 75
- changing general properties of 78, 79
- configuring 69
- deleting 79
- description of customer administrator 63
- description of supervisor capabilities 63, 64
- managing 59
- types 62

## using

- announcements 165
- MAT Navigator 40

**V**

voice ports description 24

## Voice Services

- backing up the database 225
- backups 221
- mapping treatments to ACD DN's 131
- PCMCIA card backup 222



# Reader Response Form

Nortel Networks Symposium Express Call Center  
Product release 3.0  
Call Center Management Guide  
297-2183-904

**Tell us about yourself:**

**Name:** \_\_\_\_\_

**Company:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Occupation:** \_\_\_\_\_ **Phone:** \_\_\_\_\_

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

- New user     Intermediate     Experienced     Programmer

2. How do you use this book?

- Learning     Procedural     Reference     Problem solving

3. Did this book meet your needs?

- Yes     No

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

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

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

6. How could we improve this book?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Please mail your comments to Technology Manager, Information Products, Nortel Networks, Mervue Business Park, Galway, Ireland.



# Reader Response Form



# **Nortel Networks Symposium Express Call Center Call Center Management Guide**

Nortel Networks  
Mervue Business Park  
Galway, Ireland

Copyright © 2002 Nortel Networks, All Rights Reserved

Information is subject to change without notice. Nortel Networks reserves the right to make changes in design or components as progress in engineering and manufacturing may warrant.

The process of transmitting data and call messaging between the Meridian 1 and Symposium Express Call Center is proprietary to Nortel Networks. Any other use of the data and the transmission process is a violation of the user license unless specifically authorized in writing by Nortel Networks prior to such use. Violations of the license by alternative usage of any portion of this process or the related hardware constitutes grounds for an immediate termination of the license and Nortel Networks reserves the right to seek all allowable remedies for such breach.

\*Nortel Networks, the Nortel Networks logo, the Globemark, and Unified Networks, DMS, IVR, Meridian 1, Meridian Mail, MSL-100, and Symposium are trademarks of Nortel Networks.

MICROSOFT, MS-DOS, POWERPOINT, WINDOWS, and WINDOWS NT are trademarks of Microsoft Corporation.

CRYSTAL REPORTS is a trademark of Seagate Software, Inc.

PCANYWHERE is a trademark of Symantec Corporation.

Publication number:	297-2183-904
Product release:	3.0
Document release:	Standard 3.0
Date:	September 2002

