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Nortel Networks Symposium Call Center Server

Supervisor's Guide

Product release 3.0 Standard 1.0 April 2000

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This document is the first standard release of the *Nortel Networks Symposium Call Center Server Supervisor's Guide* Release 3.0.

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Chapter 1

Understanding call center technology

In this chapter

Overview

Introduction

A supervisor in a call center is responsible for the day-to-day monitoring and management of the call center resources. A successful call center handles incoming calls promptly and effectively. State-of-the-art call center technology can help the call center satisfy callers using the least amount of call center resources possible.

BestAir Airlines

To provide realistic examples of how to use call center technology effectively, this document uses a fictitious company, BestAir Airlines. BestAir provides air travel services between major North American cities. Every month, its call center serves thousands of customers.

BestAir provides a range of services to its customers, including

- booking tickets
- providing flight schedule information
- selling vacation packages
- providing information about vacations to specific destinations
- transporting cargo
- tracing cargo and luggage
- providing information about customers' frequent flyer points

Call center services

Introduction

The goals of a call center are similar to those of most businesses: to maximize customer satisfaction and minimize cost. The definition of customer satisfaction and the relative importance of these two goals vary from business to business.

Example: BestAir Airlines

When a customer phones the BestAir Airlines call center, the call is directed to the Interactive Voice Response (IVR) system. The system can provide recorded information such as flight schedules and departure and arrival times for current flights. If the IVR system cannot answer the customer's question, it queues the call for an agent.

When the call is presented to an available agent, the agent handles the call by answering the customer's question, taking an order, or transferring the call.

The result is very simple, but the systems required to achieve it can be quite complex.

Maximizing customer satisfaction

Customer satisfaction can be measured in a number of ways. A widely used measure of customer satisfaction is service level. Service level measures the amount of time customers wait for their calls to be answered.

Example: BestAir aims to answer 80 percent of calls within 20 seconds.

Another measure of customer satisfaction is the rate of calls abandoned. This rate measures the number of callers who hang up before their call is answered. The amount of time they wait before abandoning is also important. Callers might abandon immediately if they have dialed the wrong number, or they might abandon after several minutes if their wait time is too long.

Example: BestAir targets a maximum of five percent of calls abandoned.

Minimizing cost

To minimize cost, the call center minimizes resources required to service a call. One way of minimizing resources is to reduce the number of agents in the call center. This is done by

- offloading mechanical, repetitive tasks to IVR, fax-back, and other automated systems
- directing calls to the agents who can answer them most efficiently
- minimizing the number of agents idle at any one time
- providing agents with the tools they need to process customer transactions quickly and efficiently
- providing agents with the support they need to do their jobs

Basic call center technology

Introduction

Call center technology consists of two principal components: the telephony component and the data component. The telephony component handles all of the voice communications. The data component carries all of the information, including

- customer data from the company's database
- real-time data about the current status of the call center (displayed on the supervisor's PC, or on a wallboard)
- historical data (available in reports, and used by management to generate agent schedules and make administrative decisions)

Telephony component

Switch

The core of the telephony component is the switch. The switch is the hardware and software that receives incoming calls and routes them to their destination. The destination might be a local directory number (DN)—that is, a logical address on the local switch, or a remote DN—that is, a logical address on another switch.

When the switch receives a call with a local destination, it connects the call to the physical device (the port) that is mapped to the directory number. The call is then presented to (rings at) the phoneset attached to that port.

When the switch receives a call for a remote DN, the switch sends the call out to the telephony network.

Telephony network

The telephony network includes all telephone switches, which are connected by trunk lines, microwave stations, and other transmission media. Switches in the telephony network communicate using the ISDN/PRI protocol.

Data component

Server

The core of the data component is the server. The server is the computer that

- stores data, including configuration data and historical statistics
- controls the routing of calls using script logic (the actual routing is performed by the switch)

The server acquires a special type of DN on the switch, called a controlled DN (CDN). A CDN is a directory number to which no actual agent is assigned. Instead, a CDN is controlled by an application, such as the Symposium Call Center Server. When the switch receives a call on a CDN, it notifies the controlling application, and the application tells the switch how to handle the call.

When the switch receives a call on a CDN controlled by the Symposium Call Center Server, the server initiates the master script. The master script is a set of rules that screens the call and issues instructions to the switch for the handling of the call. The switch obeys the instructions, and returns status information to the server.

Example: BestAir uses the Symposium Call Center Server.

Client

The client is the computer that you use to

- configure the server
- generate reports
- view real-time displays

The client communicates with the server over the Customer LAN (CLAN).

Example: BestAir uses the Symposium Call Center Server client to perform these tasks.

CLAN

The Customer LAN (CLAN) is the local area network that connects the server to the supervisor and agent workstations and third-party applications. All historical and real-time data travels over the CLAN, along with any data required by other applications.

Example: BestAir has online Booking and Client databases. Its agents can access these databases over the CLAN.

ELAN

The Embedded LAN (ELAN) is the local area network that connects the server to the switch. The ELAN carries all communications between the switch and the server, including

- instructions for call routing
- requests to acquire resources, such as phonesets

In a network environment, the servers use the ELAN to communicate with one other.

Resource status

When the server acquires a resource, the switch sends the server information about the status of that resource. For example, when the server acquires a phoneset, it can monitor the agent's activity at that phoneset. The server can detect and report that the agent has put the phoneset in Not Ready state, or that the agent is on a DN call. This information is then communicated in real-time displays that the supervisor can monitor and use to manage the performance of the call center.

Matching calls to agents

The situation

When the switch receives a call, it must connect the call to a destination. If you are calling a specific agent, the process is simple: the switch connects the call to the agent's phoneset. But what happens if you want to book a flight? Any one of 30 agents can help you. To which agent should the switch direct the call? How does it make sure that

- you will not be connected to an agent who is on a call, or who has left for lunch
- the call load is balanced—that is, all agents share a similar work load

Using traditional automatic call distribution routing

Automatic call distribution (ACD) was developed to handle routing of calls to a pool of agents. Its primary function is to identify and connect an incoming call to the first agent available, or queue the call if no agent is immediately available.

To use ACD, you must first perform the following tasks:

1. Create an ACD group (for example, Vacations).
2. Assign a DN (an ACD-DN) to the ACD group. The ACD-DN is a holding area on the switch (a queue), where calls wait until an agent is available.
3. Assign agents to the ACD group.
4. Map a key on the agent's phoneset to the ACD-DN (the Incalls key).

When you configure the ACD software, you can also define treatments (such as recorded announcements and music on hold) for callers in the queue.

When a customer calls and uses IVR to indicate an area of interest (for example, Vacations), his or her call is routed to the ACD-DN assigned to this area. When an agent assigned to the ACD group becomes available, the switch routes the call to the Incalls key on an agent's phoneset.

Example: Sandra Smith wants to book a vacation in Switzerland. She calls BestAir, and is connected to the Vacations ACD group. Her call is presented to Nancy Wong, who knows a lot about the company's Caribbean packages, but not as much about European packages. Nancy is able to answer most of the caller's questions but, after spending some time trying to answer the last question, she realizes she must transfer the call to someone else. She knows that James Jones has just finished training on European vacation packages, so she transfers the call to him. However, James is busy with another call, so the caller has to wait a few more minutes. Meanwhile, Toni Morelli, who also has experience with European vacation packages, is idle.

In this example, Toni was the best available agent, but the call was not presented to her. How can you ensure that callers are matched to the best available agent?

Using skill-based routing

Skill-based routing was designed to route calls to the agents best qualified to handle them. By assigning agents with specific skills to specific skillsets, skill-based routing ensures that calls are presented to the agent with the skills required to meet the caller's needs.

Example: Sandra calls BestAir's Vacation line, and hears the following announcement:

Welcome to BestAir's Vacation Line. Please select the vacation destination you are calling about.
For North American destinations, press 1.
For European destinations, press 2.
For Asian vacations, press 3.
For all other destinations, press 4.
If you don't have a specific destination in mind, press 5.

For information on Switzerland, Sandra presses 2, and the Symposium Call Center Server queues her call to the European skillset. This skillset contains all the agents with expertise in the company's European vacation offerings. James Jones is on another call, but Toni Morelli, another agent in that skillset, is available. The switch presents the call to her immediately.

Tools for call routing

Interactive Voice Response

To perform skill-based routing, you must decide which skills are required to handle a call. One way to do so is to prompt the customer to identify the type of service he or she needs.

Interactive Voice Response (IVR) is a system that plays recorded voice prompts to callers and collects their responses. IVR is very helpful for implementing skill-based routing.

To use IVR, you need several things:

- an IVR system, such as Meridian Mail or Symposium OPEN IVR
- a connection between the IVR system and the switch

  On the switch, the IVR system is configured as a phoneset (sometimes called a virtual agent). The connection between the IVR system and the switch is called a voice port.
- a queue for calls that are undergoing IVR processing

  This queue is called an IVR ACD-DN. It is similar to an ACD-DN, but it holds calls that are being processed by the IVR system.

If you use Meridian Mail with a Meridian 1 switch, the Symposium Call Center Server can control the IVR processing. The server collects statistics about events and thresholds that have been pegged and generates reports based on that data. Those reports can then, in turn, be used by management to identify opportunities for maximizing resource use and improving customer satisfaction. If you use another IVR system, the server is not aware of any processing that occurs, although the IVR system can send information about the results of the processing (such as the data entered by the caller) back to the server.

Example: When Sandra calls the Vacations line, the IVR system prompts her to identify the type of help she needs. Based on her response, the system is able to match her call to a skillset.

Dialed Number Identification Service

You can also use the Dialed Number Identification Service (DNIS) to help make routing decisions. DNIS is a service provided by the switch that allows you to define different logical numbers for different types of calls.

Example: BestAir has defined the following numbers:

- 1-800-555-BOOK (Bookings)
- 1-800-555-VACA (Vacations)
- 1-800-555-CRGO (Shipping and Luggage)
- 1-800-555-GOLD (Priority)

Calls to any of these numbers are routed to the same CDN, but the switch provides the server with the dialed number for the call. Based on the dialed number, the server determines how best to queue the call.

Calling Line Identification

In addition to providing the dialed number to the server, the switch can provide the number of the caller. This service is known as calling line identification (CLID).

Example: BestAir uses CLID to serve its priority (Gold) customers, such as Acme Manufacturing. Acme employees dial the Priority service line (1-800-555-GOLD). The switch provides the dialed number and calling line ID to the server. The calling line ID tells the server that the caller is from Acme, so the server is able to queue the call to a customer service representative who is responsible for the Acme account.

At the same time that the call is presented to the agent, a screen pop with Acme's account information and a listing of recent transactions appears on the agent's workstation. (BestAir uses Symposium Agent on the agent desktop.)

Managing the call center

The role of the supervisor

A supervisor is responsible for a group of agents. The supervisor

- monitors agent and call center performance
- provides support (for example, if the agent has an abusive call)
- reports and resolves any problems (such as poor service levels)
- helps develop schedules to ensure adequate staffing levels
- analyzes reports, and participates in planning, forecasting, and trend analysis

The Symposium Call Center Server allows you to define multiple supervisors—at least one reporting supervisor, and one or more associated supervisors. The reporting supervisor has the primary responsibility for an agent. If the reporting supervisor is unavailable, the associated supervisors provide backup. You can also schedule supervisor assignments to take effect automatically, when you need to cover breaks, vacations, and other times when the supervisor is unavailable.

Supervisors usually have a PC and a special phoneset that enables them to monitor and support their agents.

Example: Pat Wilson is responsible for the agents in the Bookings skillset. He periodically monitors agent calls, and works with agents to improve their telephone service techniques. He also uses real-time displays and historical reports to monitor the performance of his agents.

Real-time displays

Supervisors and call center managers use real-time displays to monitor the current performance of the call center. The displays provide up-to-the-minute information, such as

- number of calls waiting
- average and maximum wait times

- number of calls abandoned
- number of agents logged on to a skillset
- number of agents busy on calls
- number of agents idle

If a problem occurs (for example, if wait times or number of calls waiting increases suddenly), the supervisor can detect it immediately by viewing real-time displays. He or she can then take appropriate action to resolve the problem (such as assigning additional agents to the backlogged skillsets).

Example: At 9:00 a.m., Pat Wilson, supervisor for the Bookings skillset, notices that the number of calls waiting for agents in the Bookings skillset has jumped from the typical 3 to 15. The average wait time has also increased, from 30 seconds to 2 minutes. He immediately assigns other agents to the skillset, and logs himself on as an agent assigned to the Bookings skillset. The situation begins to improve by 10:00 a.m., and by 11:00 a.m., call levels are back to normal. Pat restores all agents to their usual skillsets, and logs off the Bookings skillset.

Historical reports

Call center managers can use reports to detect trends and seasonal behavior, and to forecast future activity. For example, you can report on the number of calls to a skillset

- during different times of the day
- during different months of the same year
- for the same month in different years

By comparing statistics for different times of the day, you can identify peak periods. By comparing statistics for different months, you can identify seasonal behavior. By comparing the same month across different years, you can identify trends.

The Symposium Call Center Server database is an open database that adheres to the Structured Query Language (SQL) and Open Database Connectivity (ODBC) standards. This means you can design customized reports, using any SQL- or ODBC- compliant application. You can also export data to other applications, such as workforce management systems.

Example: Pat Wilson uses the Skillset Performance report to investigate the sudden spike in activity. He generates interval reports for the period from 9:00 a.m. to 11:00 a.m., for several days in a row. He can clearly see the spike and notes that the behavior was unusual for that time of day. However, he is not able to explain it until he learns that BestAir was profiled on a radio morning show the day the spike occurred.

Activity codes

You can use activity (or line of business) codes to identify the amount of time that agents spend on different types of activities.

Example: James Jones takes a call for the European skillset. The caller begins by asking questions about the types of vacation packages available. James enters the activity code 540 to identify the call as a vacation inquiry call. After getting the requested information, the caller decides to purchase a package. James enters 541 to indicate that he is now involved in vacation sales activity.

Other services to callers

Recorded announcements

You can provide recorded announcements to your callers while they are waiting to speak to an agent. Recorded announcements enable you to

- assure customers that they are still connected
- let customers know their position in the queue, so they can make an informed decision about whether to hold
- advise customers about the best times to call
- promote special offers
- provide customers with general information

To implement recorded announcements, you must install a special resource on the switch, design the menus, record each announcement, and configure the switch to recognize the different announcements.

Example: Jeff Lee has booked a flight. On the day he is scheduled to depart, he calls the Bookings line to confirm the flight time. His call is routed to the IVR system, and he hears the following message:

Welcome to the BestAir Booking line.
To verify the departure time of one of today's flights, press 1.
To book a flight, press 2.
To obtain schedule information, press 3.
For any other information, please remain on the line.

When he presses 1, he hears the following message:

Flight BA971 to Munich is delayed one hour, and is now scheduled for departure at 2:19 p.m. All other flights are on time.

Jeff has received the information he needs, and he does not have to wait for an agent. In addition, available agents do not have to answer a routine question; they are free to spend their time on calls requiring personal attention.

Music on hold

To make your customers' wait for an agent more pleasant, you can provide them with music on hold. Music on hold is implemented in the same way as recorded announcements.

Example: Luba Dobrowski calls the Bookings line during one of the busy periods. All agents for the Bookings skillset are busy. While she waits for an agent to become available, her call is given music on hold treatment. In addition to making her wait more pleasant, the music assures her that she is still connected and is retaining her place in queue.

Chapter 2

Getting started

In this chapter

Overview

Introduction

The Symposium Call Center Server provides a number of tools that you can use to monitor and support your agents:

- real-time displays
- reports
- pop-up emergency notifications

The *Nortel Networks Symposium Call Center Server Supervisor's Guide* provides the information you need to manage and monitor your call center. The *Supervisor's Guide* describes how to change agent properties, view skillset properties, create and use real-time displays, create and use reports, and use the Emergency Help feature.

Who should read this guide

This guide is for Nortel Networks Symposium Call Center Server administrators and supervisors who are responsible for managing call center resources and monitoring call center performance.

Access rights

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

Related documents

This guide references the following documents. These documents provide additional information about managing and monitoring the operation of your call center.

Note: A number of these guides are accessible from the Help menu in the SMI window.

For information on	refer to
Software Installation	*Symposium Call Center Server Software Installation and Upgrade Guide*
Administration	*Symposium Call Center Server Administrator's Guide*
Network Administration	*Symposium Call Center Server Network Control Center Administrator's Guide*
Reports and Data	*Symposium Call Center Server Historical Reporting and Data Dictionary*

Skills you need

Nortel Networks product knowledge

Knowledge of, or experience with, the following Nortel Networks products will be of assistance when creating reports for the Symposium Call Center Server:

- the Symposium Call Center Server
- the switch to which the server is connecting (the Meridian 1 switch, the DMS-100 family of switches, or the MSL-100 switch)

PC experience or knowledge

Knowledge of, or experience with, the following PC products will be of assistance when administering the Symposium Call Center Server:

- Microsoft Windows 95
- Windows 98
- Windows NT 4.0 Workstation

Other experience or knowledge

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

- knowledge of your call center organizational structure
- understanding of the operational requirements of your call center
- knowledge of your customer needs

Logging on to Symposium Call Center Server

Introduction

Before you can access the administration functions, view displays, or generate reports, you must use the client to log on to the server. To log on, you must choose a server from the SMI Workbench. Contact your system administrator if your server is not in the list of available servers.

Note: In a Symposium Call Center Server network, more than one server is available. Your administrator may have grouped your servers into sites.

Assumptions

This procedure assumes the following:

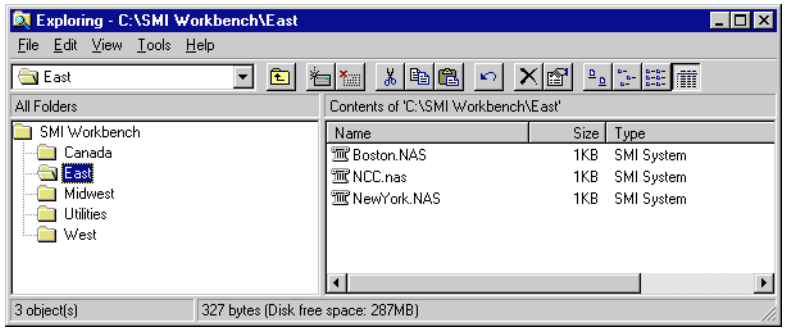
- The site and server you want to access are configured in the SMI Workbench.

  To configure sites and systems, refer to the *Software Installation and Upgrade Guide* or the *Administrator's Guide*.
- You know the user ID and password to log on to the server. If you do not know this information, contact your system administrator or your call center administrator.

To log on to the system

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

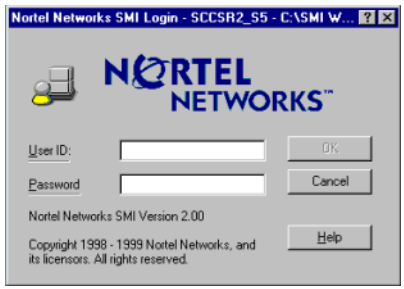
Result: The SMI Workbench Explorer opens.



2 If the All Folders pane contains a list of sites, click the site containing the server to which you want to connect.

3 In the Contents pane, double-click the server to which you want to connect.

Result: The SMI Login dialog box appears.



4 Enter your user ID and password.

Note: If you do not know this information, contact your system administrator.

5 Click OK.

Result: The SMI window appears.

Note: If a connection could not be made, an error message appears, stating that a server connection could not be established. Report this error to your call center administrator.

Logging on to the phoneset

Introduction

Symposium Call Center Server uses an eight-digit phoneset login.

ATTENTION

Once you log on to the Symposium Call Center Server, your phoneset call waiting light is no longer accurate. Do not rely on the call waiting light to indicate that calls are on hold.

To log on to the phoneset

Note: On the DMS switch, you must log on at a phoneset within your ACD subgroup, to ensure that you receive support from the correct supervisor. If you change phonesets within the subgroup, your DN number also changes.

1. Press the Make Set Busy (MSB) key.
2. Press the Incalls key.
3. Enter your login ID, followed by the number sign (#).

   Result: The Not Ready light goes on and the Make Set Busy indicator goes off. On the Agent real-time display window, the agent appears, with the value “Not Ready” in the In Calls Status column.
4. Press the Not Ready key.

   Result: On the Agent real-time display window, your In Calls Status changes to “Idle.”

Chapter 3

Working with agents

In this chapter

Overview

Introduction

As a supervisor, you are responsible for managing a group of agents. The call center administrator defines the agents on the server, and assigns them to you.

For reporting agents (agents for whom you are the reporting supervisor), you

- are notified when the user presses the Emergency key
- have keys on your phoneset that are mapped to the agent keys
- can change agent properties

You can view all your reporting and associated agents on your real-time displays. Several reports, including agent performance and short calls reports, are sorted by supervisor. You can create user-defined reports, and filter them to show only your agents.

Changing agent properties

Introduction

You can change the properties of your reporting agents. When you change agent properties, you can change

- general properties—including name, language, and comments
- phoneset properties—the agent's phoneset login ID
- call presentation properties—the agent's call presentation class
- thresholds properties—the agent's threshold class
- skillsets properties—the skillsets to which an agent is assigned, and the agent's priority for those skillsets
- supervisor properties—the associated supervisors for the agent

To change an agent's properties

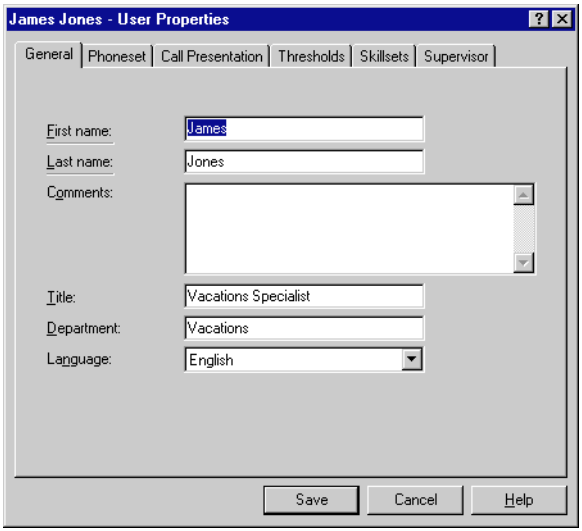
1 From the SMI window, choose User Administration → Users.

Result: The Users window appears.

2 Select the agent you want to change.

3 Choose File → Properties.

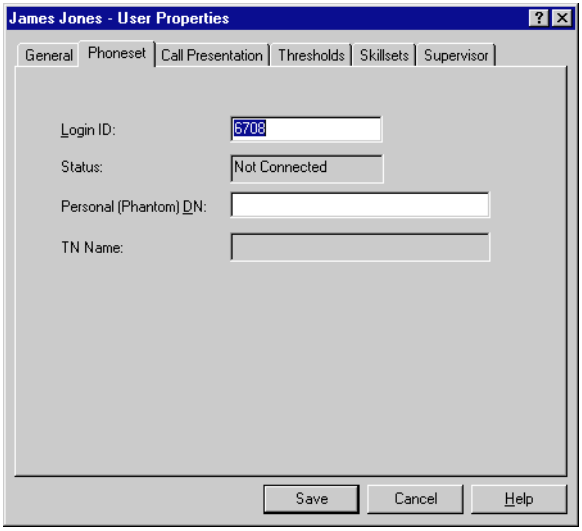
Result: The General – User Properties property page appears.



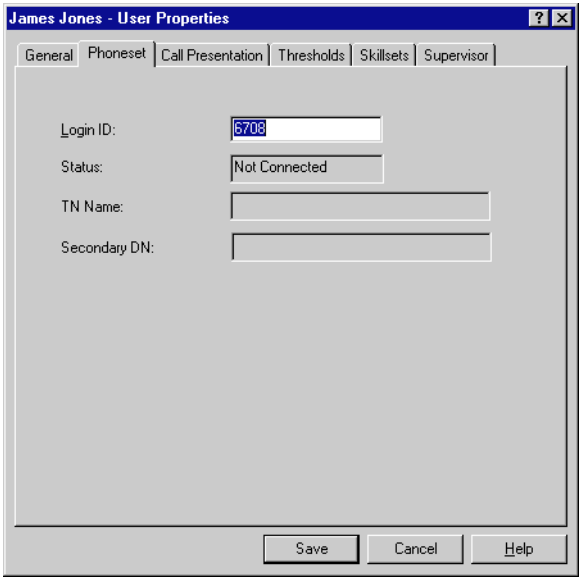
4 Complete the General property page by entering the agent's contact information.

5 Click the Phoneset tab.

Result: The Phoneset property page appears. On the Meridian 1 switch, the Phoneset property page looks like this:



On the DMS switch, it looks like this:



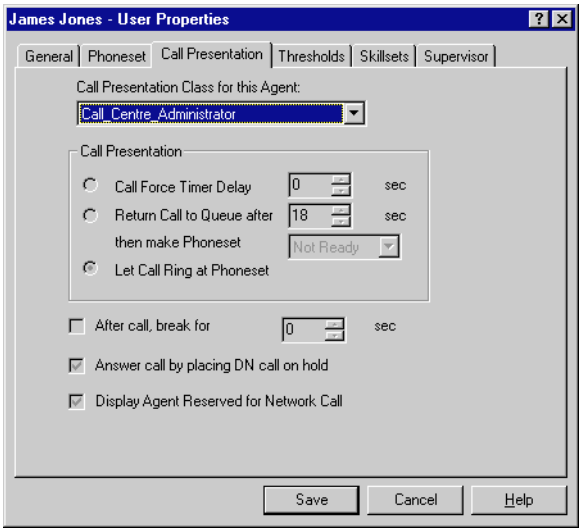
6 Complete the Phoneset property page by entering information in to these boxes.

Login ID: The number the agent uses to log into the phoneset.

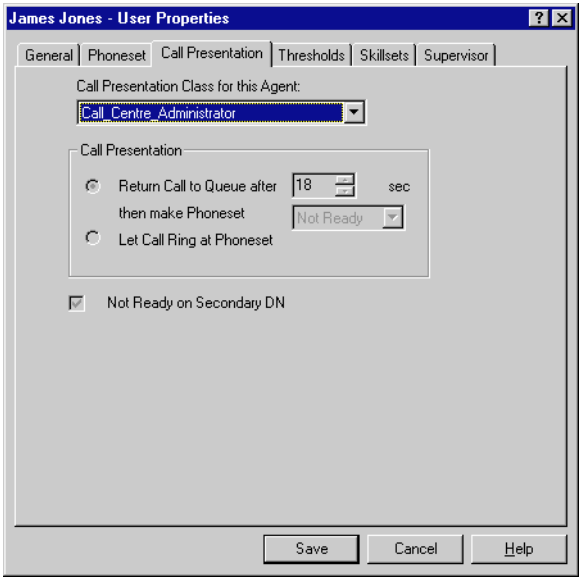
Personal (Phantom) DN or Secondary DN: The number to which non-ACD calls for this user will be directed.

7 Click the Call Presentation tab.

Result: The Call Presentation property page appears. On the Meridian 1 switch, the Call Presentation property page looks like this:



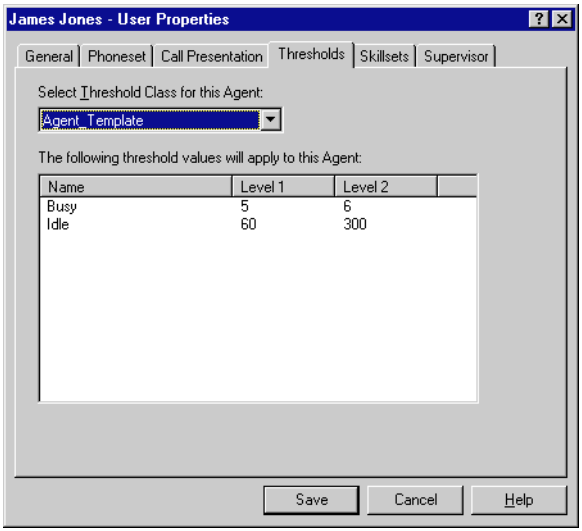
On the DMS switch, it looks like this:



8 In the Call Presentation Class for this Agent box, select the call presentation class you want to assign to this agent.

9 Click the Thresholds tab.

Result: The Thresholds property page appears.



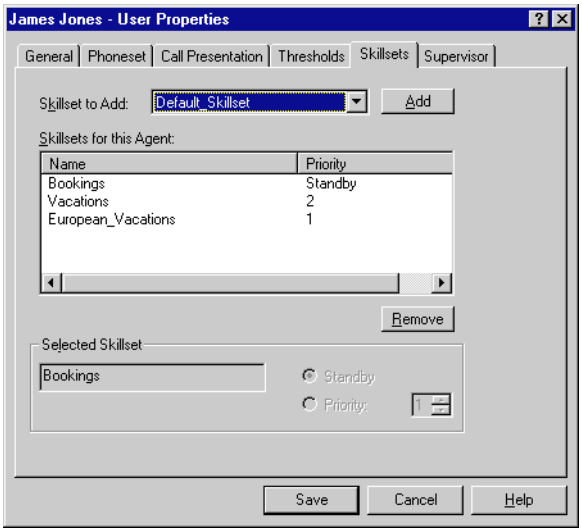
10 In the Select Threshold class for this Agent box, select the threshold class you want to assign to this agent.

11 Continue with the following procedure to add and remove skillset assignments.

To change skillset assignments

1 Click the Skillsets tab.

Result: The Skillsets property page appears.



2 To add a skillset assignment, follow these steps:

a. In the Skillsets to Add box, select a skillset to be assigned to the agent.

b. Click Add.

c. In the Name column, select the skillset you just added.

d. If you want to put the agent on standby for the skillset, click Standby. If you want to set the agent priority for the skillset, click Priority, and set the priority to a value from 1- 48, where 1 is the highest priority and 48 is the lowest priority. For more information on skillset priority, see “Choosing an agent” on page 45.

3 To delete a skillset assignment, follow these steps:

a. In the Skillsets for this Agent box, select the skillset assignment you want to delete.

b. Click Remove.

4 To change the priority for a skillset assignment, follow these steps:

a. In the Skillsets for this Agent box, select the skillset assignment you want to change.

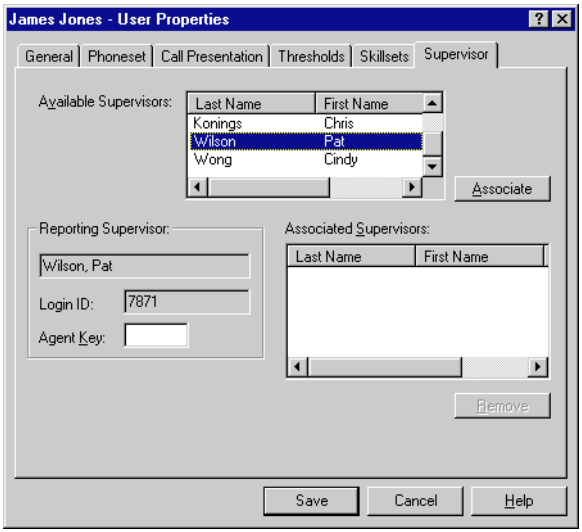
b. If you want to put the agent on standby for the skillset, click Standby. If you want to set the agent priority for the skillset, click Priority, and set the priority to a value from 1- 48, where 1 is the highest priority and 48 is the lowest priority. For more information on skillset priority, see “Choosing an agent” on page 45.

5 Continue with the following procedure to add and remove associated supervisors.

To change associated supervisors

1 Click the Supervisors tab.

Result: The Supervisors property page appears.



Note: On the DMS switch, the Supervisors property page does not contain the Agent Key box.

2 To add an associated supervisor, select the supervisor in the Available Supervisors box, and click Associate.

3 To remove an associated supervisor, select the supervisor in the Associated Supervisors box, and click Remove.

4 Click Save.

Viewing agent to supervisor assignments

Introduction

You can add agent to supervisor assignments to automatically change supervisor assignments for multiple agents. You can use agent to supervisor assignments to reassign agents when supervisors go on break or vacation.

Supervisory coverage scenarios

Example 1: Supervisor is sick

Pat Wilson, one of BestAir's supervisors, calls in sick for the day. The call center manager sets up an agent to supervisor assignment that assigns half of Pat's agents to Chris Konings, and the other half to Cindy Wong. The manager applies the assignment immediately, and all agents are assigned to their temporary supervisors for the day. Another assignment, scheduled for next day, automatically reassigns all agents back to Pat.

Example 2: Supervisor is on vacation

Pat has booked vacation from the 17th to the 28th of August. BestAir's call center manager has set up an agent to supervisor assignment that reassigns Pat's agents for that period. The manager schedules the assignment to begin automatically on August 17th. Another assignment, which takes effect August 28th at 5:00 p.m., reassigns the agents back to Pat.

Example 3: Supervisor is on regularly scheduled training

At BestAir, all supervisors are required to participate in regular upgrading. Every four weeks, the supervisor must spend half a day in training. Training sessions are staggered, to ensure adequate supervision of the call center. Pat's training occurs every third Thursday of the month. The call center manager has set up an agent to supervisor assignment that automatically reassigns Pat's agents for that time.

Example 4: Providing supervisory coverage for shifts

At BestAir, agents are usually assigned to supervisors who have experience with the agents' skillsets. However, during the early morning and evening periods, only one supervisor is on duty. The call center manager has set up agent to supervisor assignments to reassign agents for those periods.

For example, from 8:00 a.m. to 9:00 a.m., Cindy Wong is the only supervisor on duty. All agents who start work at 8:00 a.m. are temporarily assigned to her. Other assignments take effect at 9:00 and 10:00 a.m., as other supervisors arrive.

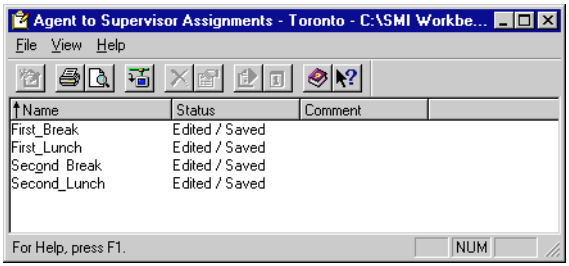
Example 5: Providing supervisory coverage for breaks and lunch

As supervisors go on break, their agents must be reassigned. For example, when Cindy goes on break from 10:00 a.m. to 10:15 a.m., all of her agents are temporarily assigned to Pat and Chris in an agent to supervisor assignment.

To view the properties of an agent to skillset assignment

1 Choose Assignments → Agent to Supervisor Assignments.

Result: The Agent to Supervisor Assignments window appears.



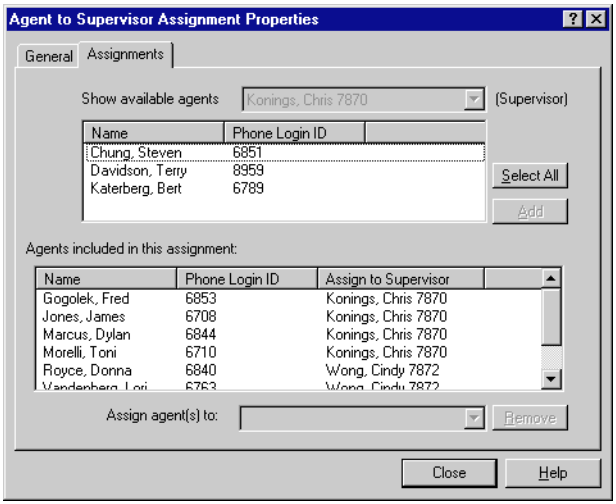
2 Select the agent to supervisor assignment you want to view.

3 Choose File → Properties.

Result: The General – Agent to Supervisor Assignment Properties property page appears. The property page contains the name and (optionally) comments for the agent to skillset assignment.

4 Click the Assignments tab.

Result: The Assignments property page appears.



The Agents included in this list box contains all agents whose supervisor assignments are changed by this assignment. For each agent, it shows the name, phoneset login ID, and the supervisor to whom he or she is assigned when the assignment runs.

5 Click Close.

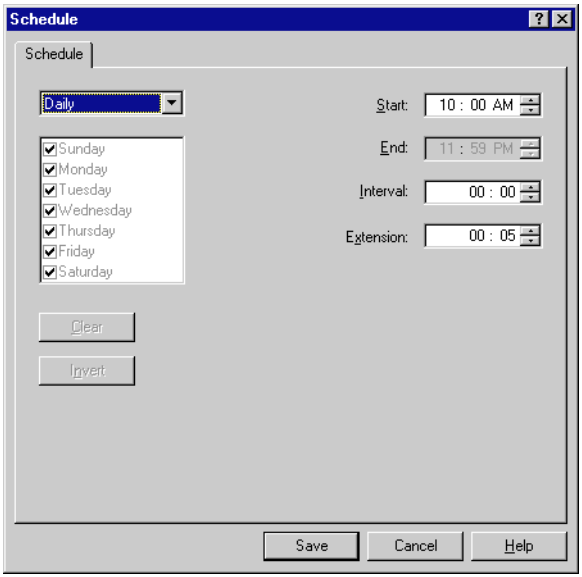
6 Continue with the following procedure to view the schedule for an agent to supervisor assignment.

To view the schedule for an agent to supervisor assignment

1 If the agent to supervisor assignment is not selected, select it.

2 Choose File → Edit Schedule.

Result: The Schedule property page appears. In this example, the assignment is scheduled to run daily at 10:00 a.m.



The Schedule property page contains the following boxes:

Schedule: The frequency with which the assignment runs.

Day/Date/Month: The day, date, and month (as applicable) that the assignment runs.

Start: The time on the selected day that the assignment runs.

End: For assignments run at intervals (specified in the Interval box), the time that the assignment stops running. For example, the assignment might run at two-hour intervals, starting at 9:00 a.m. and ending at 5:00 p.m.

Interval: The frequency, in 15-minute increments, with which the assignment runs between the start and end times. For the previous example, the interval would be 2:00.

Extension: The amount of time the system waits after a system interruption before abandoning the agent to supervisor assignment schedule.

3 Click Save.

Result: You return to the Agent to Supervisor Assignments window.

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

Chapter 4

Working with skillsets

In this chapter

Overview of skillsets

Introduction

As a supervisor, you must ensure that skillsets are serviced adequately by the available agents. To do so, you must ensure that each skillset is staffed by enough qualified agents to handle the call load for that skillset.

What is a skillset?

A skillset is a group of abilities necessary to answer a specific type of call. Skillsets are the basic building blocks of skill-based routing. They are used to match callers with the agents who can best meet their needs.

Examples of skillsets

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 shipment of goods. Additional skillsets include agents who specialize in 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. Through training courses, James has become familiar with the company's vacation package offerings. After completing the courses, he was also assigned to the Vacations skillset. Through subsequent courses, travel, and reading, James has developed additional expertise in European travel issues. He is now also a member of the European skillset.

Skill-based routing

Skill-based routing uses skillsets to match callers with the agents who can best meet their needs. For example: Sandra Smith wants to book a vacation to Britain. She has called several airlines to obtain information for the trip, including

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

When she called BestAir, Sandra's call was routed to the European skillset and presented to James Jones. James was able to give her information about the British Rail pass, along with a list of bed-and-breakfasts, and a description of the tour packages that are available.

When skillsets go out of service

Skillsets go out of service under the following conditions:

- automatically, when all agents have logged off
- manually, when you change the skillset mode on the Skillset Properties property sheet

Two out-of-service modes are available: transition mode and night service mode.

Transition mode

Transition mode is a skillset state in which the server presents calls already queued to a skillset, but gives all new calls out-of-service treatment. You might put a skillset into transition mode if a service interruption occurs during the business day, and you want to answer all calls currently waiting in the queue before putting the skillset out of service. Skillsets must be put into transition mode manually from the Skillset Properties property sheet.

Night service mode

Night service mode is a skillset state in which queued calls and any new calls arriving for a skillset are given out-of-service treatment. Skillsets can be put into night service mode automatically—when all agents have logged off—or manually from the Skillset Properties property sheet.

In your scripts, you define how calls are handled when a skillset is in night service mode.

Calls in queue

Introduction

The server must make the following decisions when presenting calls:

- If multiple agents are available, to which agent will it present the call?
- If multiple calls are waiting, which call will it present first?

Choosing an agent

If two agents are available to answer an incoming call, the server presents the call to the agent with the highest priority for the skillset to which the call is queued. Skillset priority is based on the agent's skill level for a skillset. An agent with higher skill level is assigned a higher priority for a skillset, and an agent with a lower skill level is assigned a lower priority. (Priority can range from 1 to 48.)

If more than one agent has the same priority, it presents the call to the agent with the greatest idle time. Your administrator can configure the server to base idle time on one of:

- total idle time since logging on
- total idle time since last status change
- total idle time since end of last Symposium Call Center Server or ACD call

Choosing a call

If two calls are waiting in a skillset queue when an agent for that skillset becomes available, the server presents the call with the highest priority. Priority is determined by a combination of call age and (for the networking option only) call source. You can configure the server to base call age on either

- when the call was received by the server (that is, passed to the server from the switch or from an external IVR)

- when the call was added to the skillset queue (for example, if a call was queued to one skillset, presented to an agent, and subsequently queued to another skillset)

Calls with the greatest age are presented to an agent first.

If you are using the networking option, you can give priority to either local calls or network calls, or you can choose not to prioritize calls based on source.

Queuing to a default skillset

You can define a default skillset. Any calls that are not queued by the end of script execution are automatically queued to this skillset. In the Meridian 1 environment, you can create a separate default skillset for each agent. In the DMS environment, only one default skillset is available for all agents. For example, BestAir has defined Bookings as the default skillset. Calls that have not been queued by the end of the script execution are presented to agents assigned to the Bookings skillset.

Other skillset options

Activity codes

Agents can assign activity (line of business) codes to the calls that they answer. The system uses activity codes to track the amount of time that is spent on the various types of incoming calls. To generate reports with meaningful activity codes names, your administrator must define these activity codes at the server.

Note:

- On the DMS switch, agents can enter a maximum of three activity codes.
- To use this feature on the DMS switch, your administrator must also
  - Enable the LOB feature on the switch.
  - Configure Line of Business codes in the ACDGRP table on the switch.

Default activity code

On the Meridian 1 switch, your administrator can define a default activity code for each skillset. This activity code is used if no other activity code is assigned.

Threshold classes

A threshold class is a set of options that specifies how statistics are treated in reports and real-time displays. For example, your administrator can set a short call threshold for skillsets. The short call threshold defines the length of a short call for pegging purposes.

Viewing global skillset properties

Introduction

The global skillset properties apply to all skillsets defined on your server. These properties include the following:

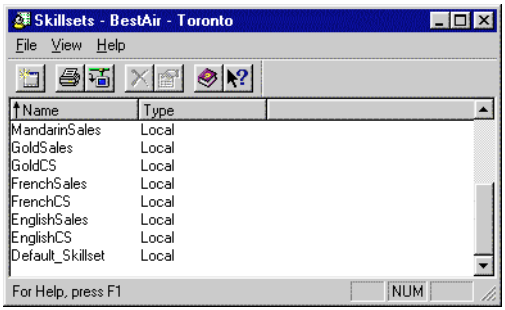
- the system default skillset
- the Recorded Announcement (RAN) route for the default skillset
- the agent idle time preference
- (for the DMS switch only) the delimiter used between fields in caller-entered data

Note: (Networking option only) If the default skillset is a network skillset, calls that are not queued by the end of script execution are queued to this skillset on the local server.

To view global skillset properties

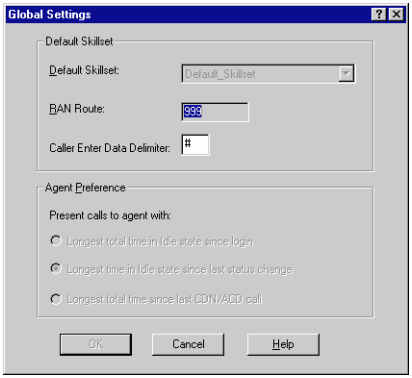
1 From the SMI window, choose Call Flow Administration → Skillsets.

Result: The Skillsets window opens.



2 Choose File → Global Settings.

Result: The Global Settings dialog box opens. The following illustration shows the Global Settings dialog box for the DMS switch.



This dialog box contains the following boxes:

Default Skillset: The skillset to which calls are queued if they have not been queued to a skillset by the end of script execution.

RAN Route: The number of the recorded announcement (RAN) route for the default skillset.

Caller Entered Data Delimiter: (DMS switch only) The character used to separate fields in data that the caller entered during an IVR session.

Agent Preference: The method for interpreting agent idle time. The following options are available:

- Longest time in idle state since login—The server presents new calls to the agent who has accumulated the greatest amount of idle time since logging on.
- Longest time in idle state since last status change—The server presents new calls to the agent who has accumulated the greatest amount of idle time since his or her last state change. Whenever an agent state changes to Idle from another state, such as Not Ready, Busy, Emergency, or Walkaway, the timer resets.
- Longest time in idle state since last CDN/ACD call—The server presents new calls to the agent who has accumulated the greatest amount of idle time since the end of his or her last Symposium Call Center Server or ACD call.

3 Click OK.

Result: You return to the Skillsets window.

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

Viewing skillset properties

Introduction

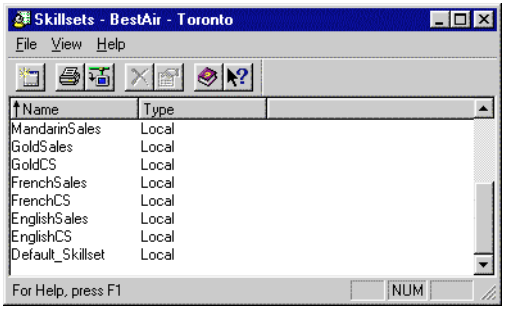
You can view the properties of your skillsets. Skillset properties include the following:

- name
- (Meridian 1 switch only) default activity code
- threshold class and threshold values

To view local skillset properties

1 From the SMI window, choose Call Flow Administration → Skillsets.

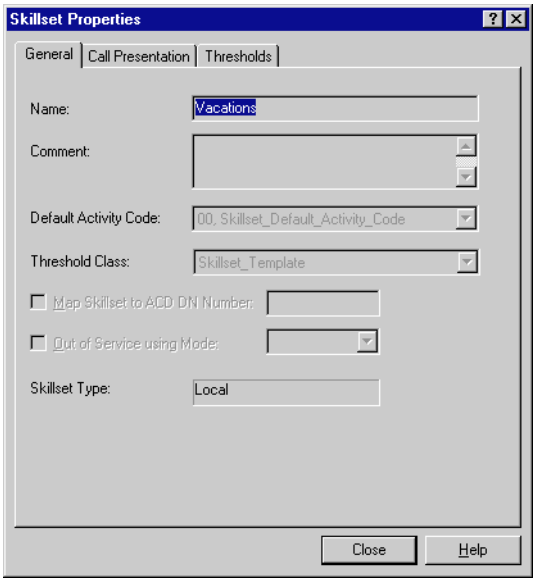
Result: The Skillsets window opens.



2 Select the skillset you want to view.

3 Choose File → Properties.

Result: The Skillset Properties property sheet opens. The following illustration shows the General property page for a skillset on a server connected to the Meridian 1 switch.



This General property page contains the following boxes:

Name: A unique name for the skillset.

Comment: Optional. Additional information about the skillset.

Default Activity Code: (Meridian 1 switch only) The activity code to be used for calls to this skillset if no activity code is entered by the agent.

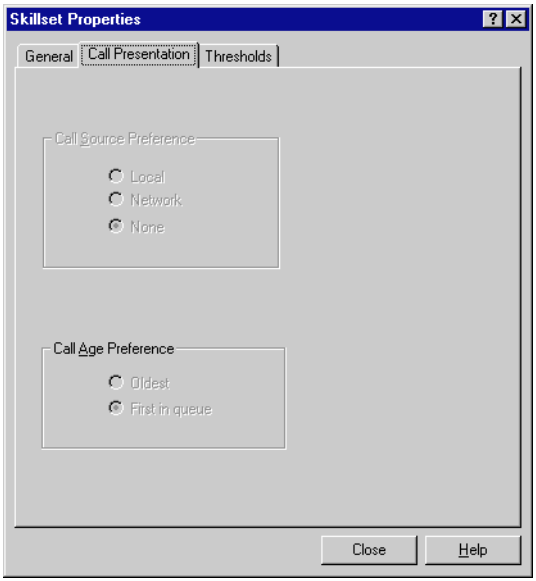
Threshold Class: The threshold class assigned to this skillset. To see the thresholds and threshold values for this threshold class, click the Thresholds tab.

Map Skillset to ACD DN Number: The ACD-DN number for which calls will be pegged to this skillset. This option allows you to use a dummy skillset to record statistics for ACD calls.

Out of Service using Mode: Shows whether the skillset has been put out of service manually. In transition mode, all new calls are given night treatment, but waiting calls are presented to an agent. In night mode, all calls, both new and waiting, are given night treatment.

4 Click the Call Presentation tab.

Result: The Call Presentation property page appears. The following illustration shows the General property page for a local skillset on a server with the networking option installed.



The call age preference may be set to one of the following values:

- Oldest—The call that has been in the system the longest has priority, regardless of its queue position.
- First in queue—The first call in the skillset queue has priority, regardless of when the call arrived in the system.

5 Click Close.

Result: You are returned to the Skillsets window.

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

Assigning agents to skillsets

Introduction

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

- for shifts when fewer agents are available
- to cover other agents' breaks
- when agents are sick, on vacation, or on a course

You can assign temporary skillsets manually on the agents' Skillsets property page, and reassign the normal skillsets the same way, or your administrator can set up automatic agent to supervisor assignments.

To use an automatic agent to supervisor assignment, you assign agents to skillsets on their Skillsets property page. If you do not want the agent to be active in the skillset immediately, put the agent into standby mode for this skillset. Then, use the agent to supervisor assignment to schedule and run the skillset at the desired time.

To assign an agent to a skillset

Tip: Consider assigning agents to more than one skillset and placing the secondary skillsets in standby. When agents are on standby for a skillset, your administrator can quickly reassign any agent using an agent to skillset assignment.

1 From the SMI window, choose User Administration → Users.

Result: The Users window appears.

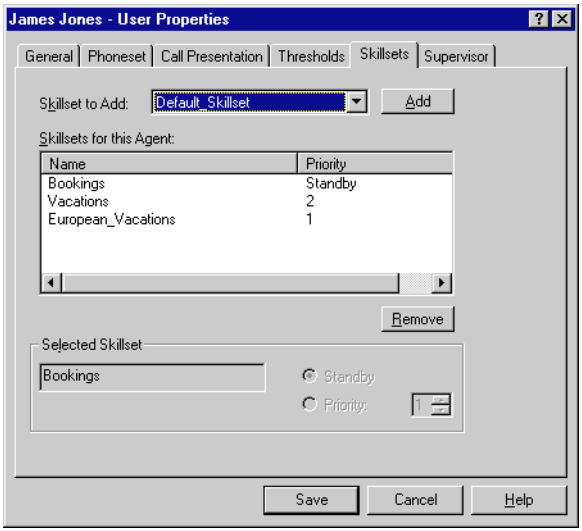
2 Select the agent you want to assign to a skillset.

3 Choose File → Properties.

Result: The General – User Properties property page appears.

4 Click the Skillsets tab.

Result: The Skillsets property page appears.



5 In the Skillset to Add box, select a skillset to be assigned to the user.

6 Click Add.

7 In the Name column, select the skillset you just added.

8 If you want to put the agent on standby for the skillset, click Standby. If you want to set the agent priority for the skillset, click Priority and set the priority using a value from 1 to 48, where 1 is the highest priority and 48 is the lowest priority. For more information on skillset priority, see “Calls in queue” on page 45.

9 Repeat steps 5 to 8 for each skillset to be assigned to the user.

10 Click Save.

Viewing agent to skillset assignments

Introduction

An agent to skillset assignment makes multiple agents active or inactive for multiple skillsets. When an assignment is run, it changes the skillset priority of each agent that has been added to the assignment. It can make an agent inactive for a skillset by changing the agent's priority to Standby. It can make an agent active for a skillset by changing the agent's priority to a value from 1 to 48.

ATTENTION

Changes to an agent to skillset assignment take effect the next time the agent to skillset assignment is run.

Skillsets coverage scenarios

Example 1: Agents are sick

Mark Schultz, an agent in BestAir's Cargo Tracing skillset, is sick and absent from work today. This has left the Cargo Tracing skillset understaffed, particularly for the period from 10:00 a.m. to 4:00 p.m., the skillset's busiest time. The call center manager temporarily assigns Rose Stefanopolis (an agent who has worked in this skillset before) to the Cargo Tracing skillset. The manager applies the agent to supervisor assignment immediately, and Rose is automatically reassigned. The manager reassigns Rose to her normal skillset when Mark returns to work the following day.

Example 2: Coffee and lunch breaks

As agents go on break, their skillsets become understaffed. To improve skillset coverage for coffee and lunch breaks, BestAir's call center manager reassigns agents during these periods.

Example 3: Shifts

During the early morning and evening periods, few agents are available. As a result, many skillsets are understaffed. Others, such as the Cargo Tracing skillset, do not go into service until 9:00 a.m., and go out of service at 5:00 p.m. BestAir's call center manager has set up an agent to skillset assignment to automatically assign members of the Cargo Tracing skillset to Bookings, the busiest skillset, during early morning and evening periods.

Example 4: Agents are on vacation

Mark has booked vacation time from June 29 to July 10. BestAir's call center manager has set up a scheduled agent to skillset assignment that reassigns Rose to the Cargo Tracing skillset for that period. The manager schedules the assignment to begin automatically on June 29, and schedules another agent to skillset assignment to take effect on July 11, restoring Rose's normal skillset assignments.

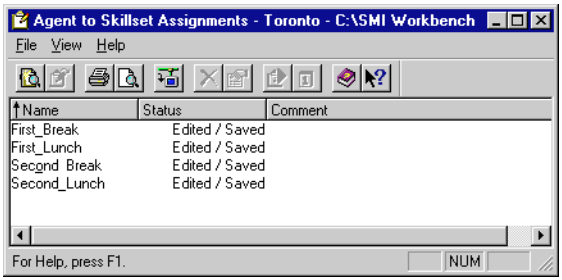
Example 5: Agents are on a course

At BestAir, all agents are expected to participate in regular upgrading of their skills. In June, all members of the European skillset must attend a course to learn about changes to the company's European vacation packages. To provide adequate coverage while the agents are on course, the call center manager has set up an agent to skillset assignment to assign other qualified staff to the European skillset. The manager has scheduled the assignment to take effect on the day of the course. Another assignment, scheduled to take effect the next day, restores the agents' normal skillset assignments.

To view the properties of an agent to skillset assignment

1 From the SMI window, choose Assignments → Agent to Skillset Assignments.

Result: The Agent to Skillset Assignments window appears.



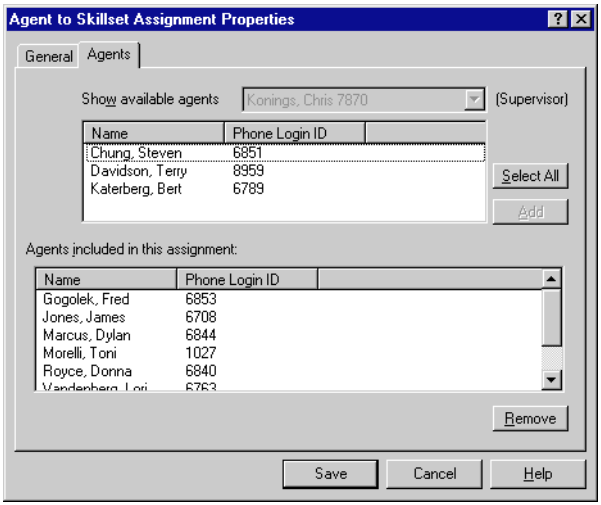
2 Select the agent to skillset assignment you want to view.

3 Choose File → Properties.

Result: The General – Agent to Skillset Assignment Properties property page appears. The property page contains the assignment name and (optionally), comments.

4 Click the Agents tab.

Result: The Agents property page appears.



The Agents included in this list box contains all agents whose skillsets assignments are changed when this assignment runs.

5 Click Save.

Result: You return to the Agent to Skillset Assignments window.

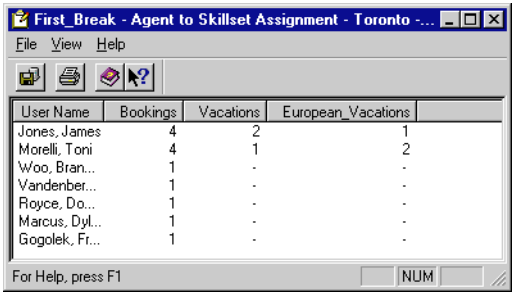
6 Continue with the following procedure to view the agents' priorities for their skillsets.

To view the agent priorities for an agent to skillset assignment

1 If the agent to skillset assignment is not selected, select it.

2 Choose File → Open.

Result: The agent to skillset matrix appears.



The matrix contains a row for each agent, and columns for all of the skillsets defined on your server. If the agent has been assigned to a skillset, the agent's priority for the skillset appears in that column. If the agent is not assigned to a skillset, the column contains a dash (-).

3 Choose File → Close.

Result: You return to the Agent to Skillset Assignments window.

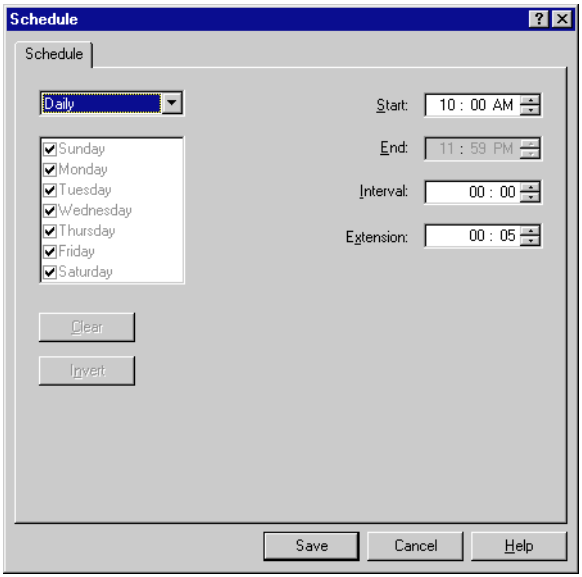
4 Continue with the following procedure to view the schedule for an agent to skillset assignment.

To view the schedule for an agent to skillset assignment

1 If the agent to skillset assignment is not selected, select it.

2 Choose File → Edit Schedule.

Result: The Schedule property page appears. In this example, the assignment is scheduled to run daily at 10:00 a.m.



The Schedule property page contains the following boxes:

Schedule: The frequency with which the assignment runs.

Day/Date/Month: The day, date, and month (as applicable) that the assignment runs.

Start: The time on the selected day that the assignment runs.

End: For assignments run at intervals (specified in the Interval box), the time that the assignment stops running. For example, the assignment might run at two-hour intervals, starting at 9:00 a.m. and ending at 5:00 p.m.

Interval: The frequency, in 15-minute increments, with which the assignment runs between the start and end times. For the previous example, the interval would be 2:00.

Extension: The amount of time the system waits after a system interruption before abandoning the agent to supervisor assignment schedule.

3 Click Save.

Result: You return to the Agent to Skillset Assignments window.

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

Chapter 5

Working with real-time displays

In this chapter

Using real-time displays to monitor your call center

Introduction

You can use real-time displays to identify service-level problems resulting from situations such as

- unusual numbers of agents unavailable
- unusual call volumes
- inefficient skillset assignments

This section describes how to identify these situations from the standard real-time displays (the displays shipped with the Symposium Call Center Server). You can also create your own customized real-time displays.

Agents unavailable

To determine how many agents are unavailable, use the Standard_Agent_By_Supervisor_Display and Standard_Skillset_Display.

On the Standard_Agent_By_Supervisor_Display, consider the following information:

- number of agents listed—Shows all agents currently logged on. If the number of logged on agents is low, you must determine why. Are agents sick, late, or on vacation?
- DN call statistics—Shows how many agents are currently active on DN calls.
- In Calls Status and Time In State—Shows how many agents are in Walkaway, Busy, or Active state, and for how long.

On the Standard_Skillset_Display, look at the following columns:

- Agents In Service—Shows how many agents are logged on for this skillset.
- Agents Available—Shows how many agents are waiting to take calls for this skillset.

- Agent on DN call—Shows how many agents logged on to this skillset are on DN calls.
- Agent Not Ready—Shows how many agents logged on to this skillset are in Not Ready state.

Call volume

To examine call volume for a skillset, use the Standard_Skillset_Display.

- Calls Waiting—Shows the call number of calls currently queued for the skillset. Skillsets with high numbers of calls waiting probably need more agents.
- Average_Answer_Delay—Shows how long, on average, callers waited in the skillset queue. Skillsets with long delays may need additional staffing.
- % Service Level for Answered Calls—Shows how many calls met the targeted service level for the skillset. If the number is too low, you may need additional staffing.

Inefficient skillset assignments

To identify inefficiencies in the assignment of agents to skillsets, use the Standard_Agent_By_Supervisor_Display and the Standard_Skillset_Display.

On the Standard_Agent_By_Supervisor_Display, look at the following columns:

- In Calls Status—Check the number of agents in Idle state.
- Time in State—Determine how long agents have been in Idle state.

On the Standard_Skillset_Display, look at the following columns:

- Agents In Service—How many agents are logged on for this skillset?
- Agents Available—How many agents are waiting to take calls for this skillset?
- Longest Wait Time Since Last Call/Longest Wait Time Since Login—If agents are showing unusually high or low wait times since last call or logon, call distribution may need to be rebalanced.

Section A: Real-time displays

In this section

Overview of real-time displays

Introduction

Real-time displays provide up-to-date statistics for your call center and its resources. You can use these statistics to monitor your call center and determine its effectiveness.

The information that each display shows is determined by the real-time display definition.

Types of real-time displays

The following types of real-time displays are available:

- agent
- application
- IVR (Meridian 1 switch only)
- route (Meridian 1 switch only)
- skillset
- call center summary

Standard display definitions

The Symposium Call Center Server ships with a set of default, or standard, real-time display definitions. The contents of these real-time display definitions are predefined, and cannot be modified. Standard real-time display definitions are stored on the server.

User-defined display definitions

User-defined definitions are ones that you create yourself. You can modify these definitions at any time. They are stored on the client PC, in the path Nortel\client\en\rtd.

Working with real-time displays

Configuring real-time statistics collection

Your administrator must configure the server to collect the types of statistics you want to include in your real-time displays. The server can collect the following types of real-time statistics:

- application statistics
- skillset statistics
- agent statistics
- IVR statistics (Meridian 1 switch only)
- route statistics (Meridian 1 switch only)
- nodal statistics

If the server does not collect statistics of a specific type (such as application statistics), displays of the corresponding type (in this example, application real-time displays) cannot be opened. For more information about configuring real-time statistics collection, refer to the *Administrator's Guide.*

Managing formulas

You can use formulas to create customized real-time statistics fields for use in your real-time displays. To create formulas, your administrator combines existing fields using mathematical operators. For more information, refer to the *Administrator's Guide*.

Creating real-time displays

You can create user-defined real-time display definitions to display the type of information you need to monitor your call center.

Managing real-time displays

You can change, print a list of, or delete user-defined real-time display definitions.

Using real-time displays

You can view, sort, and print real-time displays. Supervisors can also filter agent and skillset real-time displays to show their agents, all agents except their agents, or all agents.

Viewing modes

Moving window mode

In moving window mode, statistics shown represent the last ten minutes of system activity.

Interval-to-date mode

In interval-to-date mode, statistics are collected only for the current interval. When the interval is over, data fields initialize to zero and collection begins for the next interval.

Real-time displays and agent keys

Agents should not use the following keys on their phonesets:

- Hotline
- Private line
- Voice call
- Dial Intercom

The use of these keys results in incorrect agent statuses on the real-time displays.

Adding real-time display definitions

Introduction

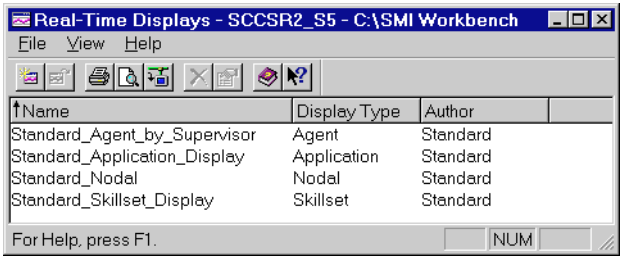
To create a real-time display, you add a real-time display definition. A real-time display definition has the following types of properties:

- general properties—such as name, refresh rate, and viewing mode
- column properties—which determine the columns that appear on the display, their format, their label, and their threshold colors

To add real-time display definitions

1 From the SMI window, choose Reports & Displays → Real-time Displays.

Result: The Real-Time Displays window appears.

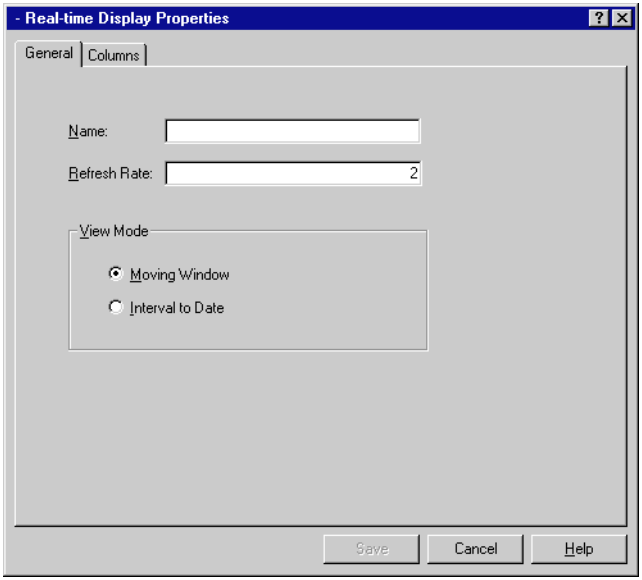


2 Choose File → New.

Result: The New submenu appears.

3 Select the template type that you want to use.

Result: The Real-time Display Properties property sheet appears. The General property page is on top.



4 Enter information into the following boxes:

Name: The name of the real-time display, as it will appear in the real-time displays list and on reports.

Refresh Rate: The refresh rate (in seconds) for the real-time display.

Note: The real-time display minimum refresh rate cannot be less than the minimum refresh rate for collecting real-time statistics data defined for your call center. The minimum refresh rate for the collection of real-time statistics data is set in the Real-time Statistics Configuration General property page. For more information, see the *Administrator's Guide*.

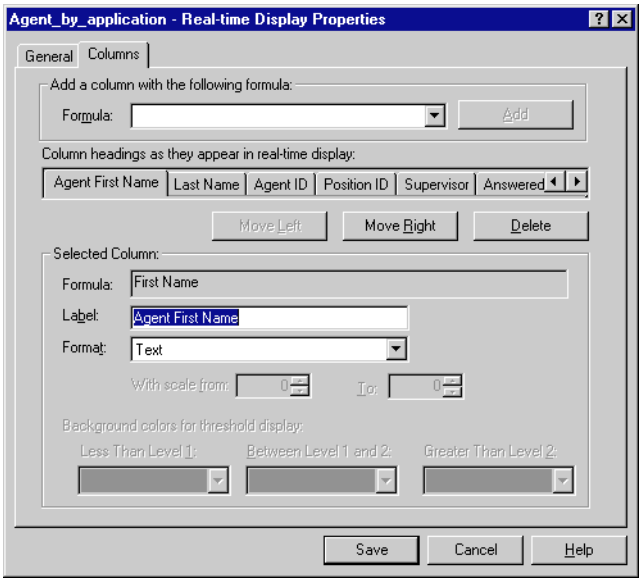
View Mode: The viewing mode that you want to use for this definition. For more information about viewing modes, see "Viewing modes" on page 70.

Note: Choose a viewing mode that is compatible with the mode selected in the Real-time Statistics Configuration window. For example, for skillset displays, if Moving Window mode is selected in the Real-time Statistics Configuration window, and you choose Interval to Date for this display, then when you attempt to open this display, a warning message appears and the

display window closes. For more information, see the *Administrator's Guide*.

5 Click the Columns tab.

Result: The Columns property page appears.



This property page contains all of the columns defined for the template. You can add, delete, or change columns to create the customized real-time display.

6 What do you want to do?

IF you want to	**THEN**
add a column	go to the following procedure.
delete a column	go to "To delete a column" on page 74.
move a column	go to "To move a column" on page 75.
change the label, format, or threshold colors for a column	go to "To change column properties" on page 75.
save the new real-time display definition	go to step 7.

7 Click Save.

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

To add columns to real-time displays

1 Select a statistic from the Formula drop-down list. For more information about the statistics available for each type of real-time display, refer to Section B: “Real-time statistics,” on page 81.

2 Click Add.

3 Click the Move Left and Move Right buttons to move the column left or right in the display’s column header. (Use the arrow buttons to scroll left and right in the display column header.)

Note: The Column Header reflects the order of the columns in the real-time display.

4 In the Selected Column box, complete the following fields:

Label: The column heading, as it appears on real-time displays.

Format: The display format of the column. The formats available depend on the column type, and can include text, numeric, time (hh:mm:ss), and bar chart.

With Scale From: For columns with bar format only, the minimum scale value to be reported in the selected column. (See “Example: Using bar formats” on page 75.)

To: For columns with bar format only, the maximum value to be reported in the selected column.

Background colors for threshold display: For columns with bar or numeric format only. For each threshold, select the color to be used.

5 Return to step 6 of “To add real-time display definitions” on page 71.

To delete a column

1 Click the column heading of the column that you want to delete.

2 Click Delete.

3 Return to step 6 of “To add real-time display definitions” on page 71.

To move a column

1. Click the column heading of the column that you want to move.
2. Click the Move Left and Move Right buttons until the column is in the desired location. (Use the arrow buttons to scroll left and right in the display column header.)
3. Return to step 6 of “To add real-time display definitions” on page 71.

To change column properties

1. Click the column heading of the column that you want to change.
2. In the Selected Column box, make the desired changes to the column information. You can change the following fields:

   Label: The column heading, as it appears on real-time displays.

   Format: The display format of the column. The formats available depend on the column type, and can include text, numeric, time (hh:mm:ss), and bar chart.

   With Scale From: For columns with bar format only, the minimum scale value to be reported in the selected column. (See the following example.)

   To: For columns with bar format only, the maximum value to be reported in the selected column.

   Background colors for threshold display: For columns with bar or numeric format only. For each threshold, select the color to be used.
3. Return to step 6 of “To add real-time display definitions” on page 71.

Example: Using bar formats

BestAir runs a call center in Toronto for the airline’s sales and service. To keep track of the time agents spend on calls, the call center administrator creates a real-time display to monitor call length.

When the administrator defines the display, she gives the bar for the Total Call Length column a minimum value of zero seconds and a maximum value of 100 seconds. Therefore, if an agent spends 50 seconds on a call, an indicator bar appears that is half the total length of the column.

Viewing real-time displays

Introduction

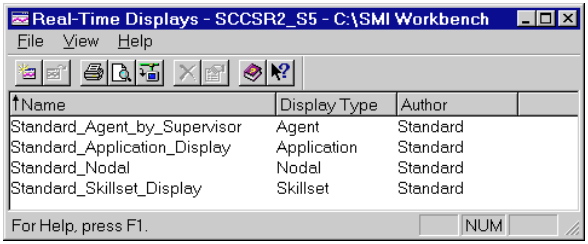
This procedure explains how to view real-time displays. When you view a real-time display, you can filter and sort the information contained on it. When you view a real-time display, you can sort the display on any column.

Note: You can open up to four real-time displays on each client PC. Up to 20 client PCs can log on to the server at any one time.

To open a real-time display

1 From the SMI window, choose Reports & Displays → Real-time Displays.

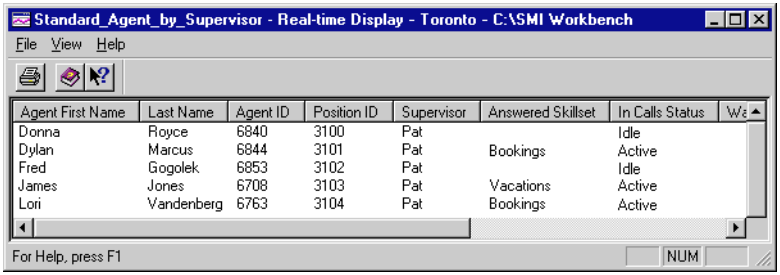
Result: The Real-Time Displays window appears.



2 Select the real-time display that you want to view.

3 Choose File → Open.

Result: The real-time display appears.



To sort a real-time display

Click the heading of the column by which you want to sort. To reverse the direction of the sort, click the column heading again.

To filter an agent display

Choose one of the following commands from the View menu:

Reporting Agents	Shows only those agents for whom you are the reporting supervisor.
Associated Agents	Shows only those agents for whom you are an associated supervisor.
Own Agents	Shows only those agents for whom you are a reporting or associated supervisor.
Other Agents	Shows all agents *except* those for whom you are a reporting or associated supervisor.
All Agents	Shows all agents configured in the system.
Logout	Shows all agents who are not currently logged on.

ATTENTION

To view all agents and all agents except your agents, you must have the View all agents – create displays access level for the Real-Time Displays right. Your administrators can change your access privileges.

To filter a skillset real-time display

Choose one of the following commands from the View menu:

Reporting Agents' Skillsets	Shows only those skillsets to which your reporting agents belong.
Associated Agents' Skillsets	Shows only those skillsets to which your associated agents belong.

Own Agents' Skillsets (R+A)	Shows only those skillsets to which all of your agents (both reporting and associated) belong.
Other Agents' Skillsets	Shows only those skillsets to which other agents (that is, agents who are not your reporting or associated agents) belong.
All Skillsets	Shows all of the skillsets configured in the system.

Other procedures for real-time displays

Introduction

After you define a real-time display, you can change it or delete it. You can also print a list of real-time displays.

To change a real-time display

You can change the properties (the name, refresh rate, and view mode) of a real-time display, and add columns to, remove columns from, change the position of columns in, or change columns properties in a real-time display.

On the Real-Time Displays window, select the display and choose File → Properties. For step-by-step instructions on changing display properties, see the online Help.

To preview a list of real-time displays

From the Real-Time Displays window, choose File → Print Preview. For step-by-step instructions, see the online Help.

To print a list of real-time displays

From the Real-Time Displays window, choose File → Print. For step-by-step instructions on printing, see the online Help.

To delete a real-time display

Note: You can only delete user-created real-time displays. Standard real-time displays cannot be deleted.

On the Real-Time Displays window, select the real-time display and choose File → Delete. For step-by-step instructions on deleting real-time displays, see the online Help.

Section B: Real-time statistics

In this section

Overview of real-time statistics

Introduction

The server can collect the following types of real-time statistics:

- agent statistics
- application statistics
- IVR statistics (Meridian 1 switch only)
- nodal call count statistics
- route statistics
- skillset statistics

Data collection interval

The Symposium Call Center Server offers two different data collection intervals.

Type	Description
moving window	■ The server reports the last ten minutes of activity. ■ The display size is fixed.
interval-to-date	■ The start time for statistics collection is user configurable. ■ Statistics are accumulated for intervals from 15 minutes to 24 hours (incremented by 15 minutes). ■ Data collection is reset to zero at the start of every interval.

Types of calls

Introduction

The following call types are referred to in the descriptions of real-time statistics: Symposium Call Center Servers calls, ACD calls, NACD calls, and DN calls.

Symposium Call Center Server calls

Symposium Call Center Server calls are calls that

- arrive at a CDN that is acquired by the Symposium Call Center Server
- are presented to the Incalls key of a phoneset that is acquired by the Symposium Call Center Server.

Local Symposium Call Center Server calls arrive at a CDN configured as a local CDN; network Symposium Call Center Server calls arrive at CDN configured as a network CDN (that is, incoming calls), or calls that are offered to a remote site by the local server (that is, outgoing calls).

Note: Unless otherwise specified, Symposium Call Center Server calls include both local and network calls.

Tracking

Symposium Call Center Server calls are tracked from the time that a call notification message arrives from the switch until the call is

- abandoned
- routed to the default DN
- given Force Disconnect command
- given Busy treatment
- given Overflow treatment
- given Queue to NACD treatment
- given Queue to Network Skillset treatment, and then
  - abandoned
  - answered

- reach a non-ISDN trunk
- treated by the Network script at the remote site

- released
- transferred or conferenced out by an agent or resource

ACD calls

ACD calls are calls to an Automatic Call Distribution Directory Number (ACD-DN) that are presented to a phoneset that is acquired by the Symposium Call Center Server. ACD calls are distributed to agents in an ACD group based on the routing table defined on the switch.

Notes:

- Networking statistics only contain calls controlled by the server. They do not include ACD calls.
- On the DMS switch, ACD call statistics include NACD calls.

Tracking

For ACD calls, the server does not record information about call activity on the switch. ACD calls are tracked from the time that they are answered at a phoneset acquired by the Symposium Call Center Server. 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

NACD calls

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

Notes:

- Delay and abandon statistics are not available for NACD calls.

- On the DMS switch, the Symposium Call Center Server cannot distinguish between ACD and NACD calls. NACD calls are pegged as ACD calls.

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 the Symposium Call Center Server. 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

DN calls

DN calls are presented to the DN key of a phoneset that is acquired by the Symposium Call Center Server. They are usually personal calls. The server only pegs DN calls in the agent performance statistics. Activity code and application statistics do not include DN calls.

Tracking

DN calls are tracked from the time that they are answered at a phoneset acquired by the Symposium Call Center Server. The server does not track activity for calls automatically redirected by the switch, including

- Hunting
- Call Forward—Busy
- Call Forward—All Calls
- Call Forward—No Answer

Note: For the DMS switch, only one DN key can be configured in the Phoneset Properties sheet and monitored by the Symposium Call Center Server. Activity on other DN keys is not reported.

Agent statistics

Introduction

Agent statistics provide information pertaining to a Symposium Call Center Server agent. The data fields are pegged based on agent activities. These statistics allow a supervisor to monitor an agent's current state.

Field descriptions

Agent ID

Description: The numeric ID the agent uses to log on to the phoneset, as defined in the Phoneset – User Properties property page.

Type: Fixed

Agent Name

Description: The name of the agent, as defined on the General – User Properties property page.

Type: Fixed

Answering Skillset

Description: The ID of the skillset for which this agent is currently answering a Symposium Call Center Server call.

Type: Instantaneous/Rate

Position ID

Description: A unique identifier for the agent's position ID, as received from the switch.

Type: Fixed

Site Name

Description: The name of the Symposium Call Center Server site, as assigned during installation.

Type: Fixed

State

Description: Indicates the state the agent is currently in on each key.

Type: Instantaneous/Rate

Valid values:

- ACD call active
- Busy—the agent is unavailable to answer a Symposium Call Center Server call
- DN In/Out call active
- Break—the agent is in Break state (Meridian 1 switch) or Variable Wrap state (DMS switch)
- Symposium Call Center Server call active
- Symposium Call Center Server active and DN In/Out call active
- Not Ready—Not Ready key activated
- Not Ready and DN In/Out call active
- Undefined—the state of the agent is unknown
- Waiting for Symposium Call Center Server call

Meridian 1 switch only:

- ACD call active and DN In/Out call on hold
- ACD call on hold
- ACD call on hold and DN In/Out call active
- ACD call on hold and DN In/Out call active and on hold
- ACD call on hold and DN In/Out call on hold
- Consultation with outside caller
- DN In/Out call on hold
- DN In/Out call on hold and active
- Not Ready and DN In/Out call on hold
- Not Ready and DN In/Out call on hold and active
- Emergency
- Symposium Call Center Server call active and DN In/Out call on hold
- Symposium Call Center Server call on hold
- Symposium Call Center Server call on hold and DN In/Out call active
- Symposium Call Center Server call on hold and DN In/Out call on hold

- Symposium Call Center Server call on hold and DN In/Out call active and on hold
- Symposium Call Center Server call presented
- Walkaway

NACD option only (Meridian 1 switch):

- NACD call active
- NACD call active and DN In/Out call on hold
- NACD call on hold
- NACD call on hold and DN In/Out call active
- NACD call on hold and DN In/Out call active and on hold
- NACD call on hold and DN In/Out call on hold

NACD/Networking options only (Meridian 1 switch):

- Reserved for a call

Notes:

1. Agents are in Busy state when they cannot be presented with a call. The following represent some of the conditions that result in agents being busy:
   - They are handling a call.
   - They are Not Ready (having pressed the Not Ready key).
   - They have programmed their phones for call forward.
   - They are in Variable Wrap (DMS switch) or Break state (Meridian 1 switch).
   - They are active on a secondary DN (DMS switch) or personal DN (Meridian 1 switch).
2. You can use agent threshold classes to define display thresholds for many of these states. You cannot define a threshold class for the State field.

Supervisor ID

Description: The numeric ID that the agent's supervisor uses to log on to the phoneset, as defined on the Phoneset – User Properties property page for the supervisor.

Type: Fixed

Supervisor Name

Description: The name of the supervisor, as defined on the General – User Properties property page for the supervisor.

Type: Fixed

Supervisor User ID

Description: The user ID of an agent's reporting supervisor, as defined on the Desktop – User Properties property page for the supervisor.

Type: Fixed

Time In State

Description: The amount of time that the agent has been in the current state.

Type: Instantaneous/Rate

Data collection option

Moving window or interval-to-date data collection can be enabled for the agent statistics group.

Application statistics

Introduction

Application (or script) statistics provide performance data on a per-application basis. The statistics provide a means to monitor an application's contribution to the operation of a call center.

Script: Definition

A script is defined as a set of instructions that relate to a particular type of call, caller, or set of conditions, such as time of day or day of week.

Note: Networking and NACD are not supported on the DMS switch.

Application: Definition

An application is a logical entity that represents a script for reporting purposes. The master script and each script that it references (that is, each primary script) has an application with a name that is the same as the script name.

Pegging

When a call enters the Symposium Call Center Server, it is handled by the master script. Most calls are handed off by the master script to a primary script. The primary script can hand off the call to a secondary script.

Calls handled by a master script

If the call does not leave the master script, all time delays and events (such as call treatments) are pegged against the Master_Script application.

Calls handled by a primary script

If a call is handed off to a primary script, all events occurring up to the hand-off are pegged against the Master_Script application. Events that occur after hand-off are pegged against the primary application.

Calls handled by a secondary script

If a call is handed off to a secondary script, all delays and events are pegged against the primary application.

Note: If a script is referenced by both the master script and a primary or secondary script, calls passing through the script are pegged against the master script.

Call traffic records

In real-time network call statistics, each site keeps records for all incoming and outgoing traffic taking place between applications at the local site and applications at the remote site.

Non-ISDN trunks and call information

If a call encounters a non-ISDN trunk while being networked to another Symposium Call Center Server site, the call information that normally travels with the call does not reach the destination site. This means that the destination site cannot distinguish that the call came from the Symposium Call Center Server network. At the destination site, the networked call is treated as a new call. At the source site, the network call is treated as terminated.

Field descriptions

Application ID

Description: A unique number to identify an application, which is assigned by the server when the application is added.

Application Name

Description: The name of the application, as defined on the General – Application Properties property page.

Calls Abandoned

Description: The number of local and incoming network Symposium Call Center Server calls abandoned for an application. You can define display thresholds for this field.

Type: Cumulative/Total

Calls Abandoned After Threshold

Description: The number of local and incoming network Symposium Call Center Server calls abandoned for an application after a wait greater than or equal to the service level threshold for the threshold class to which the application belongs.

Type: Cumulative/Total

Trigger: For local Symposium Call Center Server calls, delays begin when the Master_Script is initiated. For incoming network calls, delays begin when the call is logically queued to this site.

Calls Abandoned Delay

Description: The delay experienced by all local and incoming network Symposium Call Center Server calls abandoned for an application.

Type: Cumulative/Total

Trigger: For local Symposium Call Center Server calls, delays begin when the Master_Script is initiated. For incoming network calls, delays begin when the call is logically queued to this site.

Calls Answered

Description: The number of local and incoming network Symposium Call Center Server calls answered for an application.

Type: Cumulative/Total

Pegging: Symposium Call Center Server calls are pegged against the Master_Script or primary application, depending on the location of the call in the system. ACD calls are pegged against the ACD_DN_Application. NACD calls are pegged against the NACD_DN_Application.

Notes: If an incoming network call is answered at the source site, this field is not pegged.

Calls Answered After Threshold

Description: The number of local and incoming network Symposium Call Center Server calls answered after a wait greater than or equal to the service level threshold for the threshold class to which the application belongs.

Type: Cumulative/Total

Trigger: For local Symposium Call Center Server calls, delays begin when the Master_Script is initiated. For incoming network calls, delays begin when the call is logically queued to this site.

Calls Answered Delay

Description: The wait experienced by all local and incoming network Symposium Call Center Server calls answered for an application.

Type: Cumulative/Total

Trigger: For local Symposium Call Center Server calls, delays begin when the Master_Script is initiated. For incoming network calls, delays begin when the call is logically queued to this site.

Calls Answered Delay At Skillset

Description: The wait experienced in the skillset queue by all local and incoming network Symposium Call Center Server calls.

Type: Cumulative/Total

Trigger: Delays begin when the call is first queued to the skillset, and end when the call is answered.

Calls Given Termination Treatment

Description: The number of local and incoming network Symposium Call Center Server calls terminated with one of the following treatments:

- given force busy, force overflow, force disconnect, route to, or default treatment
- reached a non-ISDN trunk while being routed to a remote site (networking option only)
- transferred in an IVR session (Meridian 1 switch only)
- networked out through an NACD queue (Meridian 1 switch only)

Type: Cumulative/Total

Calls Offered

Description: The number of local and incoming network Symposium Call Center Server calls, ACD calls, and NACD calls offered for an application. This statistic includes local calls queued to a remote site.

Type: Cumulative/Total

Pegging: Symposium Call Center Server calls are pegged against the Master_Script or primary application, depending on the location of the call in the system. ACD calls are pegged against the ACD_DN_Application. NACD calls are pegged against the NACD_DN_Application.

Calls Waiting

Description: The number of local and incoming network Symposium Call Center Server calls for an application currently in Waiting state. This statistic includes local calls queued to a remote site.

Type: Instantaneous/Rate

Pegging: Decrements when the call is answered.

Delay Before Interflow

Description: The total amount of time that all calls spent in the Master_Script application before being passed to a primary application. For the Master_Script application, this is the total time for all calls. For primary applications, this is the total time spent in the Master_Script application by all calls that were answered for the primary application.

Type: Cumulative/Total

Max Waiting Time

Description: The amount of time that the oldest call for an application has been waiting to be answered.

Type: Instantaneous/Rate

Network Out Calls

Description: (Networking option only) The number of outgoing network calls sent from an application.

Type: Cumulative/Total

Network Out Calls Abandoned

Description: (Networking option only) The number of outgoing network calls sent by an application and abandoned at destination sites.

Type: Cumulative/Total

Network Out Calls Abandoned Delay

Description: (Networking option only) The total time delay experienced by all outgoing network calls sent by an application and abandoned at destination sites.

Type: Cumulative/Total

Network Out Calls Answered

Description: (Networking option only) The number of outgoing network calls sent by an application and answered by an agent, answered by IVR, or given termination treatment at destination sites.

Type: Cumulative/Total

Network Out Calls Answered Delay

Description: (Networking option only) The total wait experienced by all outgoing network calls sent by an application and answered by an agent, answered by IVR, or given termination treatment at the destination sites.

Type: Cumulative/Total

Network Out Calls Waiting

Description: (Networking option only) The number of outgoing network calls sent by an application that are currently in a waiting state.

Type: Instantaneous/Rate

Site Name

Description: The name of the Symposium Call Center Server site, as assigned during installation.

Waiting Time

Description: The total wait time for all local and incoming network Symposium Call Center Server calls waiting in the system.

Type: Instantaneous/Rate

Trigger: For local Symposium Call Center Server calls, delays begin when the Master_Script is initiated. For incoming network calls, delays begin when the call is logically queued to this site.

Data collection option

Moving window or interval-to-date data collection can be enabled for the application statistics group.

IVR statistics

Introduction

Interactive Voice Response (IVR) statistics, which apply only to the Meridian 1 switch, provide performance measurement information on a per-IVR queue basis. These statistics provide a means to monitor the usage of the port resources of an IVR queue from a real-time perspective.

Restrictions

IVR statistics may not be available if a third-party IVR application is used instead of a Meridian Mail application.

Field descriptions

Calls Answered

Description: The number of IVR calls answered by an IVR queue.

Type: Cumulative/Total

Calls Answered After Threshold

Description: The number of IVR calls answered that experienced a delay time greater than or equal to the service level threshold for the threshold class to which the IVR ACD-DN belongs.

Type: Cumulative/Total

Calls Answered Delay

Description: The total wait experienced by all IVR calls answered.

Type: Cumulative/Total

Trigger: The delay begins once a call enters an IVR queue.

Calls Not Treated

Description: The number of calls abandoned or pulled back while waiting in an IVR queue.

Type: Cumulative/Total

Calls Not Treated After Threshold

Description: The number of IVR calls abandoned or pulled back while waiting in an IVR queue that experienced a delay greater than or equal to the service level threshold for the threshold class to which the IVR ACD-DN belongs.

Type: Cumulative/Total

Trigger: The delay begins once a call is queued against the IVR queue.

Calls Not Treated Delay

Description: The total delay experienced by all IVR calls that were abandoned or pulled back from an IVR queue.

Type: Cumulative/Total

Trigger: The delay begins once a call is queued against the IVR queue.

Calls Waiting

Description: The number of IVR calls currently waiting at an IVR queue.

Type: Instantaneous/Rate

Site Name

Description: The name of the Symposium Call Center Server, as assigned during installation.

Type: Fixed

IVR Queue ID

Description: A unique number to identify an IVR queue, as defined on the General – IVR ACD-DN Properties property page.

Type: Fixed

IVR Queue Name

Description: The name of the IVR queue, as defined on the General – IVR ACD-DN Properties property page.

Type: Fixed

Data collection option

Moving window or interval-to-date data collection can be enabled or disabled for the IVR statistics group.

Nodal statistics

Introduction

Nodal statistics provide accounting information on a per-site basis. These statistics provide a means to monitor the nodal performance of call handling from a real-time perspective.

Note: Networking is not supported on the DMS switch.

Field descriptions

The server collects the following call center summary statistics:

Calls Answered

Description: The number of local and incoming network Symposium Call Center Server calls answered at this site.

Type: Cumulative/Total

Calls Offered

Description: The number of local and incoming network Symposium Call Center Server calls offered to this site.

Type: Cumulative/Total

Calls Waiting

Description: The number of local and incoming network Symposium Call Center Server calls currently waiting to be answered.

Type: Instantaneous/Rate

Network Calls Answered

Description: Networking option only. The number of incoming network calls answered at this site.

Type: Instantaneous/Rate

Network Calls Offered

Description: Networking option only. The number of incoming network calls offered to this site.

Type: Cumulative/Total

Network Calls Waiting

Description: Networking option only. The number of incoming network calls currently waiting to be answered.

Type: Instantaneous/Rate

Site Name

Description: The name of the Symposium Call Center Server, as assigned during installation.

Data collection option

For call center summary statistics, interval-to-date data collection can be enabled or disabled. Moving window data collection can be enabled but not disabled.

Route statistics

Introduction

Route statistics apply only to the Meridian 1 switch. Route statistics provide all trunks busy (ATB) information on a per-route basis.

Field descriptions

All Trunks Busy

Description: Indicates whether all trunks in the route are currently busy.

Type: Instantaneous/Rate

All Trunks Busy Time

Description: The total time that a route is in an all trunks busy state.

Type: Cumulative/Total

Site Name

Description: The name of the Symposium Call Center Server, as assigned during installation.

Type: Fixed

Route Name

Description: The name of the route, as defined on the General – Route Properties property page.

Type: Fixed

Route Number

Description: A unique number to identify a route, as defined on the General – Route Properties property page.

Type: Fixed

Data collection option

Moving window or interval-to-date data collection can be enabled or disabled for the route statistics group.

Skillset statistics

Introduction

Skillset statistics provide performance information based on a per-skillset basis. These statistics provide a means to monitor the real-time performance of active skillsets that your call center offers to incoming calls.

Pegging thresholds

You can define skillset threshold classes with different values for the service level threshold and the length (talk time) of a short call. Thus, the value for service level and short call length can vary from one skillset to another. For more information about threshold classes, refer to the *Administrator's Guide.*

Field descriptions

The server collects the following skillset statistics:

Agents Available

Description: The number of agents in a skillset who are currently waiting for calls. DMS switch only: This statistic includes agents who are active on a Secondary DN if

- the Not Ready on Secondary DN features is not enabled
- the DN is not acquired by the Symposium Call Center Server

It also includes agents who are reserved on the switch.

Type: Instantaneous/Rate

Agents In Service

Description: The number of agents who are currently logged on for a skillset.

Type: Instantaneous/Rate

Agents Not Ready

Type: Instantaneous/Rate

Description: The number of agents logged on for a skillset who are currently in the Not Ready state. Agents go into Not Ready state when they press the Not Ready key on their phoneset.

Agents On ACD-DN Call

Description: The number of agents logged on for a skillset who are currently handling ACD calls.

Type: Instantaneous/Rate

Agents On DN Call

Description: The number of agents logged on for a skillset who are currently handling a DN call. On the DMS switch, this statistic only includes agents active on the secondary DN key monitored by the Symposium Call Center Server.

Trigger: On the Meridian 1 switch, DN time starts when the agent answers the call. On the DMS switch, DN time starts when the agent presses the DN key.

Type: Instantaneous/Rate

Agents On In Call

Description: The number of agents logged on for a skillset who are currently handling calls on the Incalls key (including Symposium Call Center Server, ACD-DN, and NACD calls).

Formula: Agent On This Skillset Call + Agent On Other Skillset Call + Agent on ACD-DN Call + Agent on NACD-DN Call

Agents On NACD-DN Call

Description: (Meridian 1 switch only) The number of agents logged on for a skillset who are currently handling networked ACD calls.

Type: Instantaneous/Rate

Agents On Network Call

Description: (Networking option only) The number of agents logged on for a skillset who are currently handling network calls.

Type: Instantaneous/Rate

Agents On Non-Skillset Call

Description: The number of agents logged on for a skillset who are currently handling calls on the Incalls key that are *not* for a skillset.

Formula: Agent on ACD-DN Call + Agent on NACD-DN Call

Agents On Other In Call

Description: The number of agents logged on for a skillset who are currently handling calls on the Incalls key that are *not* Symposium Call Center Server calls.

Formula: Agent On Other Skillset Call + Agent on ACD-DN Call + Agent on NACD-DN Call

Agents On Other Skillset Call

Description: The number of agents logged on for a skillset who are currently handling calls for skillsets other than this skillset.

Notes:

- Agents can be assigned to multiple skillsets.
- Other skillsets can be local skillsets designed specifically for call handing at your location, or system skillsets that can be assigned from any site. An example of a system skillset is Agent Queue To.

Type: Instantaneous/Rate

Agents On Skillset Call

Description: The number of agents logged on for a skillset who are currently handling skillset calls.

Type: Instantaneous/Rate

Formula: Agent on Other Skillset Call + Agent On This Skillset Call

Agents On This Skillset Call

Description: The number of agents logged on for a skillset who are currently handling a call for this skillset.

Type: Instantaneous/Rate

Agents Unavailable

Description: The number of agents in a skillset who are currently unavailable to take calls.

Type: Instantaneous/Rate

Formula: AgentsInService – AgentsAvailable

Calls Answered

Description: The number of calls answered by an agent for a skillset.

Type: Cumulative/Total

Calls Answered After Experiencing Delay

Description: The number of calls answered by an agent for a skillset after a delay of at least one second.

Type: Cumulative/Total

Calls Answered After Threshold

Description: The number of calls answered after a wait greater than or equal to the service level threshold for the threshold class to which the skillset belongs.

Type: Cumulative/Total

Calls Offered

Description: The number of calls offered to a skillset. This statistic includes calls queued to a remote site.

Type: Cumulative/Total

Calls Waiting

Description: The number of calls currently waiting for an agent assigned to this skillset. This statistic includes calls queued to a remote site.

Pegging: Decrements when the call is presented.

Type: Instantaneous/Rate

Expected Waiting Time

Description: The total time that a new call is expected to wait before being answered by an agent assigned to this skillset.

Type: Instantaneous/Rate

Formula: (Calls Answered Delay x Calls Waiting) /(Calls Answered x Calls Answered)

Longest Waiting Time Since Last Call

Description: The longest idle time for all agents who are currently waiting to answer calls for a skillset.

Type: Instantaneous/Rate

Trigger: This idle timer is reset whenever a call is answered. For example, the longest waiting time since the last call is currently 14 seconds; Mary and Jim have been idle for 14 and 10 seconds, respectively. A call arrives and is presented to Mary. Her idle timer is set to 0, and the longest wait time is reset to 10.

Longest Waiting Time Since Login

Description: The longest waiting time of all idle agents who are currently waiting to answer calls for a skillset.

Type: Instantaneous/Rate

Trigger: This idle timer is reset when the agent logs on to the skillset. Waiting time increments until the agent answers a call. After the call ends, waiting time increments until the agent answers the next call.

Max Waiting Time

Description: The maximum waiting time spent by any call currently waiting for an agent with the required skillset.

Type: Instantaneous/Rate

Network Calls Answered

Description: Networking option only. The number of network calls answered by all agents with this skillset.

Type: Cumulative/Total

Network Calls Waiting

Description: Networking option only. The number of network calls currently waiting at this skillset.

Type: Instantaneous/Rate

Site Name

Description: The name of the Symposium Call Center Server, as assigned during installation.

Skillset Abandoned

Description: The number of local and incoming networks Symposium Call Center Server calls abandoned while queued to a specific skillset.

Type: Cumulative/Total

Skillset Abandoned After Threshold

Description: The number of local and incoming network Symposium Call Center Server calls abandoned for a skillset after a wait greater than or equal to the service level threshold for the threshold class to which the skillset belongs.

Type: Cumulative/Total

Trigger: Delays begin when the call is queued to the skillset.

Skillset Abandoned Delay

Description: The delay experienced by all local and incoming network Symposium Call Center Server calls abandoned for a skillset.

Type: Cumulative/Total

Trigger: Delays begin when the call is queued to the skillset.

Skillset ID

Description: A unique number to identify a skillset, which is assigned by the server when the skillset is added.

Skillset Name

Description: The name of the skillset, as defined on the General – Skillset Properties property page.

Skillset State

Description: The current state of the skillset.

Type: Instantaneous/Rate

Valid values:

- InService
- OutOfService

Total Calls Answered Delay

Description: The delay experienced by all calls answered at this skillset.

Type: Cumulative/Total

Trigger: Delays begin when the calls are queued against the skillset until the time they are answered.

Waiting Time

Description: The total waiting time for all calls currently waiting at this skillset.

Type: Instantaneous/Rate

Data collection option

For skillset statistics, interval-to-date data collection can be enabled or disabled. Moving window data collection can be enabled but not disabled.

Section C: Agent state tracking

In this section

Real-time status

Introduction

This section shows how agent state is reported on real-time displays.

If the agent key status is		Agent status displays as			
Incalls key	**DN key**	**Incalls Status**	**DN In Status**	**DN Out Status**	**Walk-away Status**
no call present	no call present	Idle			
no call present	incoming DN call active	Busy	Active		
no call present	incoming DN call on hold	Busy	On hold		
no call present	outgoing DN call active	Busy	Active		
no call present	outgoing DN call on hold	Busy	On hold		
no call present	incoming DN call ringing	Idle			
no call present	DN key pressed	Busy			
call ringing	no call present	Call present			
call ringing	incoming DN call ringing	Call present			
call active	no call present	Active			
call on hold	no call present	On hold			

If the agent key status is		Agent status displays as			
Incalls key	**DN key**	**Incalls Status**	**DN In Status**	**DN Out Status**	**Walk-away Status**
call active	incoming DN call on hold	Active	On Hold		
call on hold	incoming DN call active	On hold	Active		
call on hold	incoming DN call on hold	On hold	On hold		
call active	outgoing DN call on hold	Active		On hold	
call on hold	outgoing DN call active	On hold		Active	
call on hold	outgoing DN call on hold	On hold		On hold	
ACD/NACD call ringing	no call present	Busy			
ACD/NACD call active	no call present	ACD/ NACD Active			
ACD/NACD call on hold	no call present	ACD/ NACD on hold			
Not ready	no call present	Not ready			
Not ready	Incoming DN call active	Not ready	Active		
Not ready	Incoming DN call on hold	Not ready	On hold		

If the agent key status is		Agent status displays as			
Incalls key	**DN key**	**Incalls Status**	**DN In Status**	**DN Out Status**	**Walk-away Status**
Not ready	Outgoing DN call active	Not ready		Active	
Not ready	Outgoing DN call on hold	Not ready		On hold	
Call on hold; walkaway	no call present	On hold			Yes

Section D: Standard real-time displays

In this section

Overview

Introduction

The Symposium Call Center Server provides standard real-time displays of the following types:

- agent
- application
- call center summary
- IVR (Meridian 1 switch only)
- route (Meridian 1 switch only)
- skillset

You cannot change or delete standard real-time displays. This section describes the fields in the standard displays.

User-defined real-time displays

You can create user-defined real-time displays, using the standard displays as templates. You can customize the user-defined real-time displays by adding and removing fields. For a list of fields that you can add, refer to Section B: “Real-time statistics,” on page 81. In addition, you can use formulas to create customized real-time statistics fields for use in your real-time displays. To create formulas, combine existing fields using mathematical operators. (For more information, see the *Administrator’s Guide*.)

Standard_Agent_By_Supervisor_Display

Description

Use this template to create agent real-time displays. These displays allow you to monitor the current state of your agents. For detailed descriptions of the fields, see “Agent statistics” on page 86.

ATTENTION

On the DMS switch, agents cannot press the Emergency key while they are in conference with another agent.

Column descriptions

The standard agent real-time display contains the following columns:

Column	Field/Formula	Values
Agent ID	Agent ID	
Agent First Name	Agent Name	
Agent Last Name	Agent Name	
Answered Skillset	Answering Skillset	
DN In	State	■ Active ■ Hold
DN In Tag	State	+ the agent is active on an inbound DN call, and another inbound DN call is on hold
DN Out	State	■ Active ■ Hold
DN Out Tag	State	+the agent is active on an outbound DN call, and another outbound DN call is on hold

Column	Field/Formula	Values
In Calls Status	State	■ Active ■ Break ■ Busy ■ Call Present ■ Consultation (Meridian 1 only) ■ Emergency ■ Idle ■ Logout ■ Not Ready ■ On Hold (Meridian 1 only) ■ Reserve (Network/NACD options only) ■ Walkaway
In Calls Tag	State	Emergency the agent has pressed the Emergency key *the agent is in Walkaway state
Position ID	Position ID	
Supervisor First Name	Supervisor Name	
Supervisor Last Name	Supervisor Name	
Supervisor ID	Supervisor ID	
Time in State	Time in State	

Standard_Application_Display

Description

Use this template to create application real-time displays. These displays allow you to monitor the contributions of applications to your call center. For detailed descriptions of the fields, see “Application statistics” on page 90.

Display thresholds

You can define application threshold classes with different display thresholds for all real-time columns except Application Name. For more information about threshold classes, refer to the *Administrator’s Guide.*

Column descriptions

The standard application real-time display contains the following columns:

Column	Field/Formula
%Abandoned_Aft_ Threshold	Calls Abdnd Aft Threshold X 100 / Calls Abandoned
% Calls_Abandoned	Calls Abandoned X 100 / (Calls Abandoned + Calls Answered)
%Service_Level	{[(Calls Answered + Calls Abandoned) - (Calls Answered After Threshold + Calls Abandoned After Threshold)] X 100} / (Calls Answered + Calls Abandoned)
Application Name	Application Name
Average_Abandon _ Delay	Calls Abandoned Delay / Calls Abandoned
Average_Answer_ Delay	Calls Answered Delay / Calls Answered
Calls Abandoned	Calls Abandoned

Column	Field/Formula
Calls Abandoned Delay	Calls Abandoned Delay
Calls Abdnd Aft Threshold	Calls Abandoned After Threshold
Calls Answd Aft Threshold	Calls Answered After Threshold
Calls Answd Dly At Skillset	Calls Answered Delay At Skillset
Calls Answered	Calls Answered
Calls Answered Delay	Calls Answered Delay
Calls Given Terminate	Calls Given Termination Treatment
Calls Offered	Calls Offered
Calls Waiting	Calls Waiting
Max Waiting Time	Max Waiting Time
Waiting Time	Waiting Time

Standard_IVR_ACD-DN_Display

Description

IVR real-time displays are available only on the Meridian 1 switch. Use this template to create Interactive Voice Response (IVR) ACD-DN real-time displays. These displays allow you to monitor the usage of the port resources of an IVR queue. For detailed descriptions of the fields, see “IVR statistics” on page 97.

Display thresholds

You can define application threshold classes with different display thresholds for all real-time columns except IVR Queue Name and Queue Number. For more information about threshold classes, refer to the *Administrator’s Guide.*

Column descriptions

The standard IVR real-time display contains the following columns:

Column	Field/Formula
%Service_Level	{[(Calls Answered + Calls Abandoned) - (Calls Answered After Threshold + Calls Abandoned After Threshold)] x 100} / (Calls Answered + Calls Abandoned)
Average_Answer_Delay	Calls Answered Delay / Calls Answered
Calls Answered	Calls Answered
Calls Not Treated	Calls Not Treated
Calls Waiting	Calls Waiting
IVR Queue ID	IVR Queue ID
IVR Queue Name	IVR Queue Name

Standard_Nodal_Display

Description

Use this template to create call center summary real-time displays. These displays allow you to monitor the status of your call center. For detailed descriptions of the fields, see “Nodal statistics” on page 99.

Display thresholds

You can define a nodal threshold class for use with nodal real-time displays. In this threshold class, you can define thresholds for all columns except Nodal Name. For more information about threshold classes, refer to the *Administrator’s Guide.*

Column descriptions

The standard nodal real-time display contains the following columns:

Column	Field/Formula
Calls Answered	Calls Answered
Calls Offered	Calls Offered
Calls Waiting	Calls Waiting
Network Calls Offered	Network Calls Offered (Networking option only)
Nodal Name	Site ID

Standard_Route_Display

Description

Route real-time displays are available only on the Meridian 1 switch. Use this template to create route real-time displays. These displays allow you to monitor all trunks busy (AT) and network out call blocked information on a per-route basis. For detailed descriptions of the fields, see “Route statistics” on page 101.

Display thresholds

You can define a route threshold template for use with route real-time displays. In this template, you can define thresholds for all columns except Route Name and Route Number. For more information about threshold classes, refer to the *Administrator’s Guide.*

Column descriptions

The standard route real-time display contains the following columns:

Column	Field/Formula	Values
All Trunks Busy Flag	All Trunks Busy	Y all trunks are busy N all trunks are not busy
All Trunks Busy Time	All Trunks Busy Time	
Route Name	Route Name	
Route Number	Route Number	

Standard_Skillset_Display

Description

Use this template to create skillset real-time displays. These displays allow you to monitor the status of skillsets in your call center. For detailed descriptions of the fields, see “Skillset statistics” on page 103.

Display thresholds

You can define skillset threshold classes with different display thresholds for all real-time columns except Skillset Name and Skillset State. For more information about threshold classes, refer to the *Administrator’s Guide.*

Column descriptions

The standard skillset real-time display contains the following columns:

Column	Field/Formula	Values
% Service Level for Ans Calls	[(Calls Answered - Calls Answd Aft Threshold) X 100] / Calls Answered	
Agent Available	Agents Available	
Agent In Service	Agents In Service	
Agent Not Ready	Agents Not Ready	
Agent on DN call	Agents on DN Call	
Agent on In call	Agents on In Call	
Agent Unavailable	Agents Unavailable	
Average_Answer_ Delay	Total Answer Delay / Calls Answered	

Column	Field/Formula	Values
Calls Answd Aft Threshold	Calls Answered After Threshold	
Calls Answered	Calls Answered	
Calls Waiting	Calls Waiting	
Expected Wait Time	(Calls Answered Delay x Calls Waiting) /(Calls Answered x Calls Answered)	
Longest Wait Time Since Last Call	Longest Waiting Time Since Last Call	
Longest Wait Time Since Login	Longest Waiting Time Since Login	
Max Waiting Time	Max Waiting Time	
Skillset Name	Skillset Name	
Skillset ID	Skillset ID	
Skillset State	Skillset State	■ In Service ■ Out of Service
Total Answer Delay	Total Calls Answered Delay	
Total Wait Time	Waiting Time	

Chapter 6

Working with reports

In this chapter

Overview

Introduction

Reports help you to monitor your system performance by providing information on system activity. You can use reports to

- analyze productivity and efficiency
- assess staffing requirements
- identify trends
- identify seasonal behavior
- forecast future activity
- enhance service

Forecasting is especially helpful for predicting changes in call center traffic. For example, if a retailer's annual summer sale traditionally brings higher call volumes, detailed reports can help the center prepare for future sales. Similarly, tracking seasonal business trends makes it easier to manage staffing requirements from one year to the next.

You can use predefined standard reports or create customized reports.

Working with reports

Creating reports

You can create user-defined reports using either standard reports or user-defined reports as a template. When you create a user-defined report, you specify

- general report information—including report name and company name
- selection criteria—the entities to be included in the report
- report schedule—when the report is to be generated
- data range—the data collection period for the report
- output options—the printer or file to which the report is output

Managing reports

You can change report properties, change the site name, print a list of reports, or delete a user-defined or user-created report.

Using reports

You can preview a report, generate a report immediately, activate the report schedule (so that it is generated at the next scheduled time), or deactivate the schedule.

Types of reports

Introduction

Symposium Call Center Server reports can be classified in two ways:

- who created them
- what type of information they contain

Who created them

Standard

Standard reports are installed with the Symposium Call Center Server client. You cannot schedule standard reports, but you can run them on an ad hoc basis. You can modify the report data range and data type when you generate the report. All other report information is fixed.

User-defined

You create a user-defined report by duplicating a standard report template or another user-defined report. You can define schedules for user-defined reports, set filters, and modify any report information except predefined database information.

User-created

A user-created report is a customized report created using Crystal Reports 7.0 or any other ODBC- or SQL- compliant report writer. Only reports created with Crystal Reports can be imported into the Symposium Call Center Server. You can schedule imported reports and modify the data range and output option information.

For more information about creating customized reports, refer to the *Historical Reporting and Data Dictionary.*

Note: You cannot import reports created with CCMIS.

What type of information they contain

Historical reports

Historical reports provide information about the past performance of the call center. Two types of historical reports are available:

- summarized historical reports—These reports contains totals accumulated over a period of time (usually, 15-minute interval, day, week, or month).
- event (or detail) reports—These reports contain detailed information about each event that occurred.

Configuration reports

Configuration reports contain information about how your system is configured. You can use them as a reference when you are planning or making changes in your system.

Using reports to monitor your call center

Introduction

The Symposium Call Center Server provides a large number of reports that you can use to monitor the efficiency of your call center over time. This section lists some common questions supervisors have, and tells you which report you can use to find answers.

Which agents need assistance and training?

As a call center supervisor, you need to be able to identify agents with the following problems:

Problem	Report
Unusually long talk time—This may indicate that the agent is having difficulty responding to customer requests. (It may also indicate that the agent is handling more complex calls than other agents.)	Agent Average Calls Per Hour Agent Performance Agent Average Calls Per Hour, Bottom 5 (Use the Agent By Activity Code report to determine the complexity of the calls handled by the agent.)
Unusual number of short calls—This may indicate that the agent is terminating or redirecting calls, to meet call quota targets.	Agent Short Calls Agent Performance Agent Average Calls Per Hour, Top 5
Unusual number of transferred or conferenced calls—This may indicate that the agent is having difficulty responding to customer requests, or is redirecting calls to meet call quota targets.	Agent Transferred/Conferenced Activity Agent Performance

Problem	Report
Unusually long talk time or unusual number of short, transferred, or conference calls for a specific skillset—This may indicate that the agent does not have the skills required for a skillset.	Agent By Skillset Performance (Compare the same agent in several skillsets, and different agents in the same skillset.)
Over- or under-utilized agents—Look for agents with unusual amounts of Waiting time, or unusual number of Calls Presented. (Make sure you take into account time spent on ACD calls.)	Agent Performance
Unusual amount of time spent on personal calls.	Agent DN Performance, Top 5 Agent DN Performance
Habitual lateness, long break times, excessive walkaway time.	Agent Login/Logout

Note: To balance call distribution, your call center administrator can reconfigure parameters such as Agent Idle Time Preference, adjust agent skillset priorities, or redesign the call flow (adding or changing scripts, adding or removing skillsets, and changing skillset assignments).

Do I have enough agents assigned to each skillset?

As a call center supervisor, you must be able to identify skillsets that are underserviced. To do so, use the Skillset Performance report. Look at the following statistics:

- Skillset Answered—Shows the call volume for the skillset. Skillsets with high call volumes probably need more agents. (You should take into account the average call length for the skillset.)
- Average Answer Delay—Shows how long, on average, callers waited in the skillset queue. Skillsets with long delays may need additional staffing.
- Skillset Answered After Thresh—Shows how many calls were answered after the service level threshold for the skillset. Compare this total with

your department’s targets. If it is too high, you may need additional staffing.

Section A: Managing reports

In this section

Overview of managing reports

Introduction

A user-defined report is a report you create using a standard report or another user-defined report as a template. You can define the following properties for a user-defined report:

- general report information—including report name and company name
- selection criteria—the entities to be included in the report
- report schedule—when the report is to be generated
- data range—the data collection period for the report
- output options—the printer or file to which the report is output
- network sites—(network option only) for network consolidated reports, generated from the NCC, you can select the sites to be included in the report

Notes:

- You can define a data range only in historical reports.
- If the Report Listener is not running on the client PC on which the report was defined, a scheduled report is not generated (refer to “Starting the Report Listener” on page 161).
- If a default printer is not configured on the client PC on which the report was defined, you can export a scheduled report to a file, but you cannot output it to a printer (refer to “Configuring a default printer” on page 163).
- If a default printer is not configured on the client PC, you cannot preview reports on that PC.

Where reports are stored

Introduction

All reports are located on the client PC. Therefore, if you create a user-defined report on one PC and then log on to the server on another PC, the report will not be in the Reports window on the second PC. Similarly, if you import a user-created report on one PC, and then log on to the server on another PC, the user-created report will not be in the Reports window.

User-defined reports and user ID

When you save a user-defined report, your user ID is stored with it. Only the creator has access to the report. If another user logs on to the Symposium Call Center Server on the PC on which the report is stored, he or she will not see the report in the Reports window.

Note: If multiple users log in on the same client PC, they must assign unique names to any reports they created. For example, if one user creates a report named “Daily Agent Report,” the other users cannot create a report with the same name.

User-defined reports and server

When you save a user-defined report, the name of the server is stored with it. The report is available only when you log on to the server on which you created it. If you have more than one server, and you create a report on one server, that report will not appear in the Reports window when you log on to another server, even if you log on using the same user ID.

Creating user-defined reports

Introduction

The Symposium Call Center Server provides a number of standard reports. These reports cannot be scheduled or modified. However, you can use them as templates when creating customized (user-defined) reports.

CAUTION

Risk of data loss

Before generating a call-by-call report, make sure that the client PC has at least 150 Mbytes of disk space.

CAUTION

Risk of data loss

Before you define a consolidated report or generate a call-by-call report, check with your network administrator to make sure that the network has the capacity to support the resulting traffic.

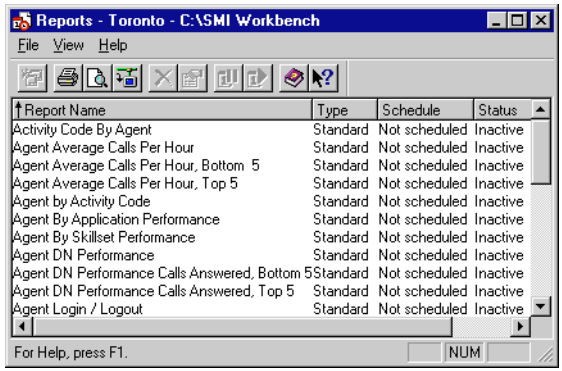
ATTENTION

The report generation process creates temporary files in the Windows TEMP directory on the client PC. To avoid running out of disk space, delete these temporary files regularly. For detailed instructions, see the *Software Installation and Upgrade Guide.*

To create a user-defined report

1 From the SMI window, choose Reports & Displays → Reports.

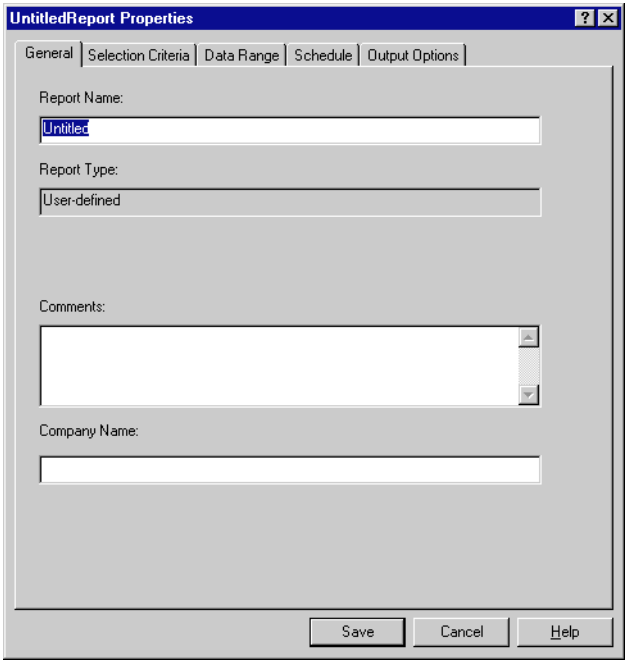
Result: The Reports window appears.



2 Select the report that you want to use as a template.

3 Choose File → Duplicate.

Result: The Report Properties property sheet appears. The General property page is on top.



4 On the General property page, complete the following boxes:

Report Name: The name of the report, as it will appear in the Reports window and in the report title.

Collection Frequency: For historical reports only the collection period (interval, daily, weekly, or monthly).

Note: If you choose Interval, the collection period is 15 minutes.

Comments: Optional. Additional information about the report.

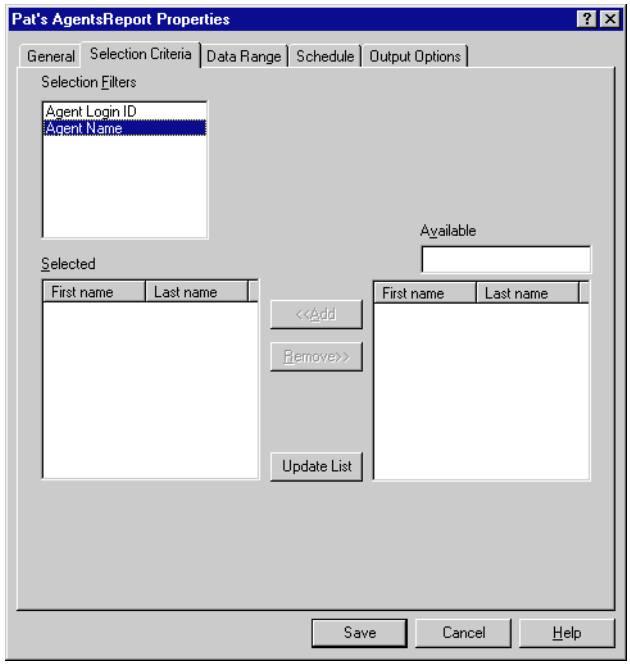
Company Name: The name of the company as it will appear in the top left corner of the report.

5 Go to the following procedure.

To limit the entities included in the report

1 Click the Selection Criteria tab.

Result: The Selection Criteria property page appears.



2 In the Selection Filters box, select the filter you want to use.

Note:

- The filters available depend on the type of statistics included in the report. If you are using a standard report as a template, then see the report description in *Historical Reporting and Data Dictionary* for a list of filters.
- If you select multiple filters, only entities that satisfy all filter criteria appear in the report. For example, you might choose to filter on five agents and three activity codes. If one of the selected agents has not used any of the specified activity codes, then that agent is not included in the report.

3 Click Update List to refresh the Available list.

4 To add an element, select it in the Available list and click Add.

Note: You can select up to 250 entities. If you use multiple filters, the total number of entities selected for all filters cannot exceed 250.

5 To remove an element, select it in the Selected list and click Remove.

6 For the Estimated Revenue By Agent report, in the Per Unit $ box, enter the dollar amount to be used to calculate the revenue value for each activity code.

Note: The system multiplies this number against the number of occurrences of the activity code.

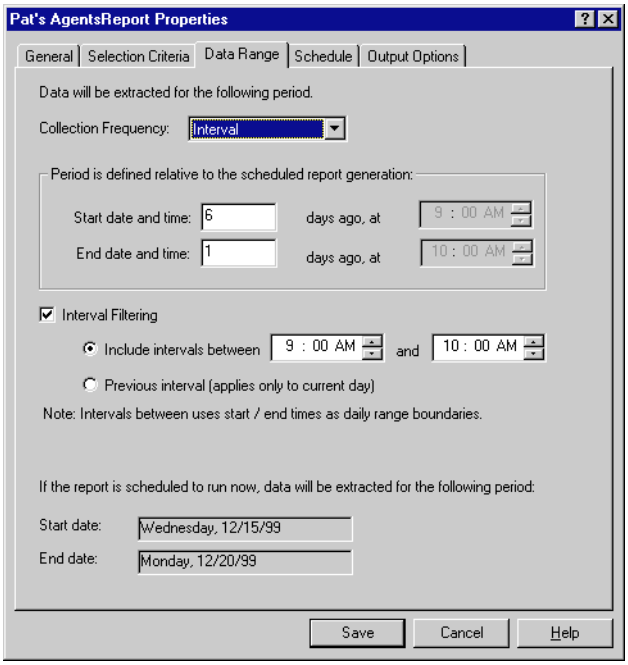
7 Go to the following procedure.

To define the data range

You must define a schedule before you can define a data range. To define a schedule, refer to “To define the report schedule” on page 144.

1 Click the Data Range tab.

Result: The Data Range property page appears.



2 Enter information into the following boxes:

Start date and time: The date and time (relative to the date and time that the report is generated) that you want data collection to start. To report on an interval ending at 12:00 a.m., you must increase the number of days ago by 1.

Example: To report on the interval from 11:45 p.m. to 12:00 a.m. on the current day, specify 1 for days ago.

Note: For consolidated reports, if you are using time zone conversion, enter the time at the NCC.

End date and time: The date and time (relative to the date and time that the report is generated) that you want data collection to end. To report on an interval ending at 12:00 a.m. on the current day, specify 0 for days ago.

Notes:

- The data collection period actually ends one second prior to the specified end time. For example, to collect data for the period from 4:00

p.m. to 4:14:59 p.m. enter a start time of 4:00 p.m. and an end time of 4:15 p.m.

- For consolidated reports, if you are using time zone conversion, enter the time at the NCC.

Interval Filtering: Not applicable for reports generated at the NCC. Select this option if you want to generate previous interval reports, or specify the intervals to be included in this report. If you choose this option, the following buttons become available.

- **Include intervals between:** For reporting periods that include more than one day, choose whether to report on the entire day.

  Example: Start date and time is June 7 at 8:30 a.m. and End date and time is June 8 at 5:00 p.m. If you choose this option, the report will contain statistics for June 7 from 8:30 a.m. to 5:00 p.m. and for June 8 from 8:30 a.m. to 5:00 p.m. If you do not choose this option, the report will contain statistics for June 7, from 8:30 a.m. to midnight, and for June 8 from 00:01 a.m. to 5:00 p.m.

- **Previous interval:** Generates an interval report at the end of each 15-minute interval in the selected period.

Time zone conversion: For reports generated at the NCC only. Select this option if you want to convert NCC time to local time for each site.

Example: The NCC is at Chicago, and the data extraction period is 10:00 a.m. to 11:00 p.m., and selected sites include Toronto and San Francisco. If you select this option, the report includes events occurring at Toronto between 11:00 a.m. and 12:00 p.m., and at San Francisco between 8:00 a.m. and 9:00 p.m.

Result: The Start date and End date boxes at the bottom of the property page show the data collection period if the report is run immediately.

3 Go to the following procedure.

To define the report schedule

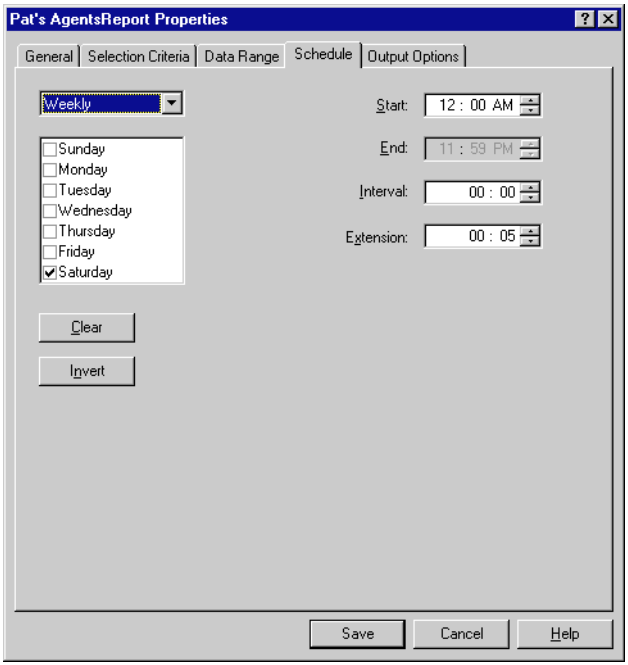
Notes:

- Ensure that the client PC on which the report was defined is on, and the Report Listener is running at the scheduled time. If client PC is not on, or if the Report Listener is not running, then the report will not be generated.

- If you want to output the report to a printer, ensure that a default printer has been configured on the client PC.
- User-defined reports based on the following standard report templates cannot be scheduled: Network Call By Call Statistics, Historical and Real Time Statistics Properties, Network Skillset Routing Properties, Network Site and Application Properties.

1 Click the Schedule tab.

Result: The Schedule property page appears.



2 Enter information into the following boxes:

Schedule Selection: The time period for which you want to schedule your report.

Schedule Date: The day, date, and month (as applicable) that you want to run the report.

Start: The time on the selected day that you want to generate your report. For example, you can start generating the report after 12:01 a.m.

End: For reports generated at intervals (specified in the Interval field). The time that you want report generation to end. For example, you can generate a report at one-hour intervals, starting at 8:00 a.m. and ending at 5:00 p.m. Enter 5:00 p.m. in this field.

Interval: The frequency, in 15-minute increments, with which you want the report generated between the start and end times. For the previous example, you enter 60. To print daily, weekly, monthly, or annual reports, enter 0.

Note: To calculate how often an interval report will be generated, find the number of times the interval can be completed within one hour, and then multiply the times per hour by the number of hours you have defined from start to finish for the report. For example, you can configure a report as follows:

Interval = 15 minutes
Start time = 9:00 a.m.
End time = 5:00 p.m.

The number of intervals per hour is four. The total number of hours from start to end is eight. Therefore, the total number of intervals is 32 (4 x 8).

Extension: The amount of time that the system should wait after a print job interruption before abandoning the print job.

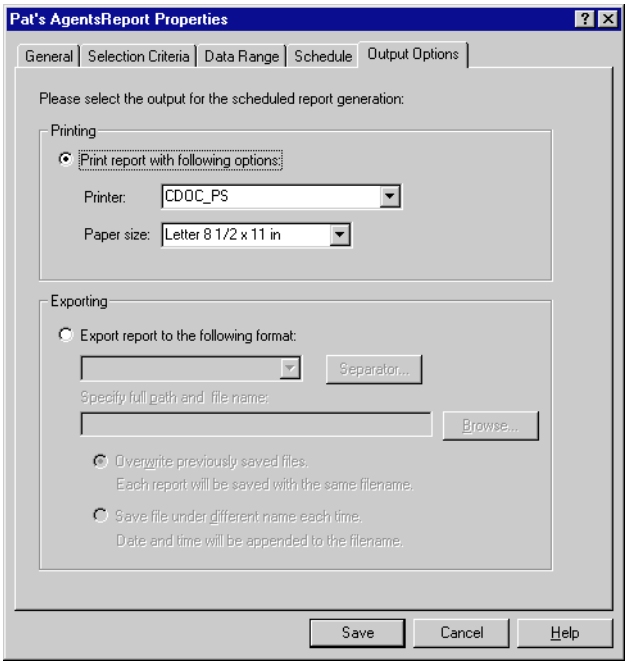
Note: If recovery takes place before the Extension time expires, then the print job finishes printing.

3 Go to the following procedure.

To define output options

1 Click the Output Options tab.

Result: The Output Options property page appears.



2 What do you want to do?

IF you want to	THEN
output the report to a printer	go to step 3.
output the report to a file	go to step 6.

3 Select Print report with following options.

4 In the Printer box, choose the printer to which you want to print the report.

5 In the Paper size box, choose the paper size that you want to use for the report. Then go to step 11.

6 Select Export report to the following format.

7 In the Export report to the following format list box, select the export file format that you want to use.

Note: Some export formats do not support all report features. If your report output does not look the way you expect, use a Crystal Reports, RTF, or Excel format.

8 If you selected comma-separated value (CSV) format in step 7, click Separator and choose the character that you want to use to separate fields in the report file.

9 In the Specify full path and file name box, specify the location in which you want to save the export file, and the file name.

10 Choose Overwrite previously saved files, or Save file under different name each time.

11 If the report is a network-consolidated report, then continue with the following procedure. If it is not, click Save.

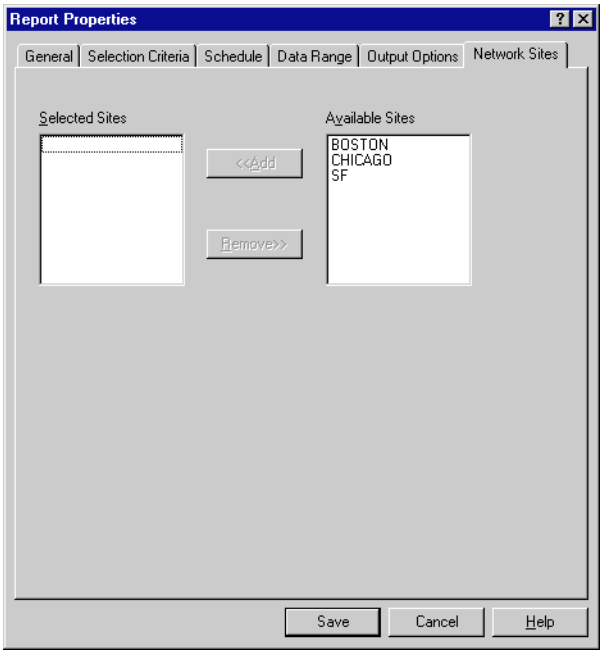
12 To return to the SMI window, choose File → Close.

To select the network sites to be included in the report

Note: This option is available only for consolidated reports generated on the Network Control Center. You can change this option for standard reports.

1 Click the Network Sites tab.

Result: The Network Sites property page appears.



2 To include network sites in the report, select them in the Available Sites list, and click Add.

3 To exclude network sites from the report, select them in the Selected Sites list and click Remove.

4 Click Save.

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

Changing the site name

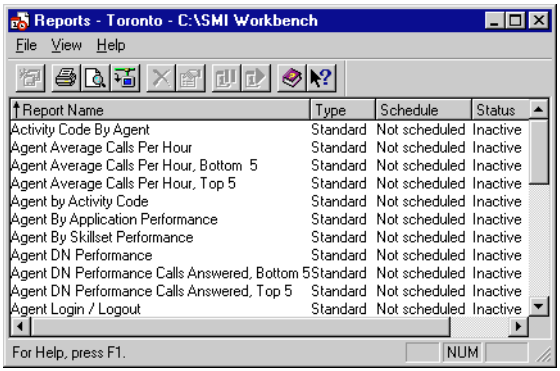
Introduction

During installation, your server is assigned a site name. If the site name for your server changes, you must define the new site name on the client, so that scheduled reports continue to run.

To change the site name

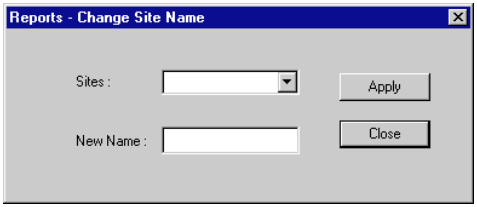
1 From the SMI window, choose Reports & Displays → Reports.

Result: The Reports window appears.



2 Choose File → Change Site Name.

Result: The Reports–Change Site Name dialog box appears.



3 In the Sites box, select the site whose name you want to change.

4 In the New Name box, type the site name that you want to use.

5 Click Apply.

Result: The new name appears in the Sites box.

6 Click Close.

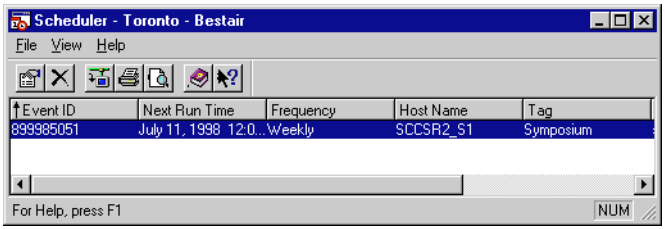
7 To return to the SMI window, choose File → Close.

Confirming a scheduled report

To confirm a scheduled report

1 From the SMI window, choose System Administration → System Configuration → Scheduler.

Result: The Scheduler window appears.



2 Check the scheduled report in the Scheduler window.

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

Other procedures for reports

Introduction

After you define a report, you can change it or delete it. You can also print a list of reports.

To change report properties

You can change the following properties for a user-defined report:

- general report information—including report name and company name
- selection criteria—the entities to be included in the report
- report schedule—when the report is to be generated
- data range—the data collection period for the report
- output options—the printer or file to which the report is to be output
- network site properties—(for network consolidated reports only) the sites to be included in the report

You can change the following properties for a user-created report:

- general report information—including report name and company name
- report schedule—when the report is to be generated
- data range—the data collection period for the report
- output options—the printer or file to which the report is to be output
- network site properties—(for network consolidated reports only) the sites to be included in the report

On the Reports window, select the report and choose File → Properties. For step-by-step instructions, press F1 to access the online Help.

To preview a list of reports

From the Reports window, choose File → Print Preview. For step-by-step instructions, press F1 to access the online Help.

To print a list of reports

From the Reports window, choose File → Print. For step-by-step instructions on printing, press F1 to access the online Help.

To delete user-defined or user-created reports

Note: You cannot delete standard reports.

ATTENTION

If the report schedule is active, you must deactivate it before you can delete it. For more information, refer to “Deactivating reports” on page 160.

On the Report window, select the report and choose File → Delete. For step-by-step instructions on deleting reports, press F1 to access the online Help.

Section B: Using reports

In this section

Overview of using reports

Introduction

Once you have created the user-defined or user-created reports, you can activate or deactivate their schedules and preview or print them.

Scheduled report printing prerequisites

A scheduled report prints at the schedule time if the following conditions are met:

- The Report Listener is running on the PC on which the report schedule was created.
- A default printer is configured on the PC on which the report schedule was created.

Standard reports cannot be scheduled, but you can preview or print them when you need them.

Interpreting comma- and character-separated value reports

When you export a report in comma or character-separated value format, the program generates a line for each record in the report. Each record line also contains all the header, summary, and footer information applicable to the record. The program processes headers and footers one line at a time.

For example, a comma-separated value record for the following report would look like this:

“Agent Average Calls per Hour - Daily”,“BestAir Airlines”,“Report Interval: 00:00:00 07 May, 1999 - 23:45:00 07 May, 1999”,“Site Name: TORONTO”,“Table Name: dAgentPerformanceStat”,“Average Answered”,“per Hour”,“Average Talk Time”,“Average Not Ready Time”,“GRAND TOTAL”,22.77,“00:46:56”,“00:02:12”,“Agent Name & ID: Jon Carlos -

6709”,“Summary:”,“16.80”,“00:44:39”,“00:02:32”, “4/6/99”,16.80,“00:44:39”, “00:02:32”,“Agent”,16.80,“00:44:39”,“00:02:32”,“GRAND TOTAL”,22.77, “00:46:56”,“00:02:12”,“C:\REPORTS\flat\dm-agt9.rpt”,“Printed By: sysadmin 5/8/99 10:23:21 AM”,“Page 1 of 1”

Agent Average Calls per Hour - Daily

BestAir Airlines
Site Name: TORONTO
Table Name: dAgentPerformanceStat

Report Interval: 00:00:00 07 May, 1999 - 23:45:00 07 May, 1999

	Average Answered per Hour	Average Talk Time	Average Not Ready Time
GRAND TOTAL			
	22.77	**00:46:56**	**00:02:12**
Agent Name & ID: Jon Carlos - 6709			
Summary:	16.80	00:44:39	00:02:32
4/6/99	16.80	00:44:39	00:02:32
Agent	16.80	00:44:39	00:02:32
Agent Name & ID: Tom Wilson - 6761			
Summary:	52.00	01:00:52	00:00:04
4/6/99	52.00	01:00:52	00:00:04
Agent	52.00	01:00:52	00:00:04
Agent Name & ID: Lori Vandenberg - 6763			
Summary:	48.00	00:57:12	00:03:40
4/6/99	48.00	00:57:12	00:03:40
Agent	48.00	00:57:12	00:03:40
Agent Name & ID: Brandon Woo - 6841			
Summary:	38.34	00:56:44	00:00:04
4/6/99	38.34	00:56:44	00:00:04
Agent	38.34	00:56:44	00:00:04
Agent Name & ID: Dylan Marcus - 6844			
Summary:	32.00	00:46:32	00:00:04
4/6/99	32.00	00:46:32	00:00:04
Agent	32.00	00:46:32	00:00:04
Agent Name & ID: Ronnie Heintz - 6912			
Summary:	68.00	01:01:28	00:00:04
4/6/99	68.00	01:01:28	00:00:04
Agent	68.00	01:01:28	00:00:04
GRAND TOTAL			
	22.77	**00:46:56**	**00:02:12**

C:\REPORTS\filation-ag19.rpt

Printed By: sysadmin 5/8/99 10:23:21 AM **Page 1 of 1**

Activating reports

Purpose

Follow this procedure to activate a report schedule. After you schedule a report, you must activate, or turn on, the schedule. The report is not generated until the schedule is activated. To schedule the report, refer to “To define the report schedule” on page 144.

To activate a report

1. From the SMI window, choose Reports & Displays → Reports.

   Result: The Reports window appears.

2. Select the report that you want to activate.
3. Choose File → Activate.
4. To return to the SMI window, choose File → Close.

Deactivating reports

Purpose

Follow this procedure to deactivate, or turn off, a report schedule. For example, you can deactivate reports on a holiday. When you deactivate a report schedule, the report definition and schedule remain, but the report is not generated until you reactivate it.

To deactivate a report

1. From the SMI window, choose Reports & Displays → Reports.

   Result: The Reports window appears.
2. Select the report that you want to deactivate.
3. Choose File → Deactivate.
4. To return to the SMI window, choose File → Close.

Starting the Report Listener

Introduction

The Report Listener is an application that runs on the client PC. If you schedule a report, the Report Listener must be running on the PC at the time that the report is scheduled to run. If the Report Listener is not running, the report will not be generated.

When you start the client PC, the Report Listener starts and runs minimized on your taskbar. If you do not see the Report Listener on your taskbar, use the following procedure to start it. (The Report Listener might not be on the taskbar if you closed it, or if you stop it from running when the client starts.)

To start the Report Listener

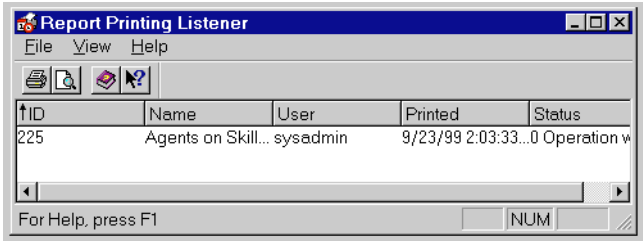
1 From the Start menu, choose Windows Explorer.

Result: The Explorer window appears.

2 Browse to Nortel\client\en\bin.

3 Double-click NicRLstn.exe

Result: The Report Printing Listener window opens.



This window contains a list of scheduled reports that have been generated on this PC. For each report, the window shows when the report was generated and the status of the operation.

4 To minimize the window, click the Minimize button.

Viewing the Report Listener

The Report Listener application runs minimized on your taskbar. To view the Report Listener window, double-click the Report Listener icon:

Configuring a default printer

Purpose

If you want to output scheduled reports to a printer, or if you want to preview reports, you must configure a default printer on the client PC. If a default printer has not been defined, then reports will not be output to a printer, and you cannot preview reports.

ATTENTION

If you use a postscript printer, use the printer driver provided by the manufacturer. Generic and old postscript printer drivers can result in cropping of letters and other problems.

To configure a default printer

1. From the Start menu, choose Settings → Printers.

   Result: The Printers window appears.

2. Select the printer on which you want to print the report.
3. Choose File → Set as Default.

Previewing and printing standard and ad hoc reports

Introduction

You can preview a report before printing it.

CAUTION

Risk of data loss

Before you print or preview a consolidated report, check with your network administrator to make sure that the network has been engineered with the bandwidth required to support the resulting traffic.

ATTENTION

You cannot print or preview reports if you connect to the server with a PPP link.

ATTENTION

If you use a postscript printer, use the printer driver provided by the manufacturer. Generic and old postscript printer drivers can result in cropping of letters and other problems.

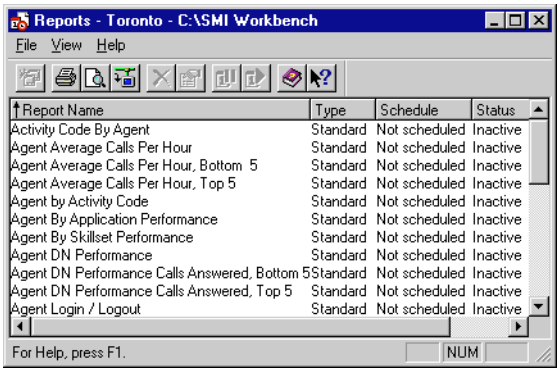
ATTENTION

The report generation process creates temporary files in the Windows TEMP directory on the client PC. To avoid running out of disk space, delete these temporary files regularly. For detailed instructions, see the *Software Installation and UpgradeGuide.*

To preview or print a report

1 From the SMI window, choose Reports & Displays → Reports.

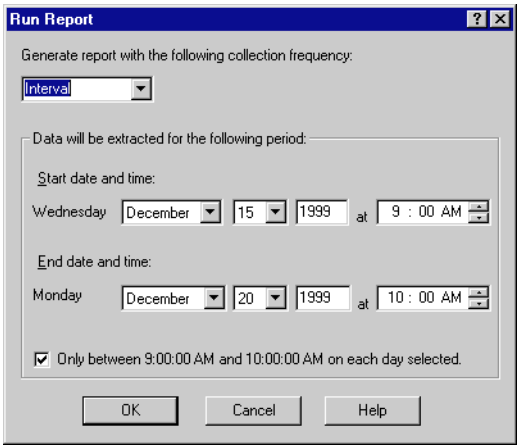
Result: The Reports window appears.



2 Select the report that you want to preview.

3 Choose File → Run Now.

Result: The Run Report dialog box appears.



Note: This dialog box does not appear for configuration reports. If you are previewing a configuration report, the print preview window appears. Go to step 6.

4 Enter information into the following boxes:

Generate report with the following collection frequency: The collection period (interval, daily, weekly, or monthly). The collection periods available depend on the type of report.

Start date and time: The date and time that you want data collection to start.

End date and time: The date and time that you want data collection to end.

Note: The data collection period actually ends one second prior to the specified end time. For example, to collect data for the period from 4:00 p.m. to 4:14:59 p.m., enter a start time of 4:00 p.m. and the end time of 4:15 p.m.

Only between ... on each day selected: Not applicable for reports generated at the NCC. For reporting periods that include more than one day, choose whether to report on the entire day.

Example: Start date and time is June 7 at 8:30 a.m. and End date and time is June 8 at 5:00 p.m. If you choose this option, the report will contain statistics for June 7 from 8:30 a.m. to 5:00 p.m. and for June 8 from 8:30 a.m. to 5:00 p.m. If you do not choose this option, the report will contain statistics for June 7, from 8:30 a.m. to midnight, and for June 8 from 00:01 a.m. to 5:00 p.m.

Time zone conversion: For reports generated at the NCC only. Select this option if you want to convert NCC time to local time for each site.

Example: The NCC is at Chicago, and the data extraction period is 10:00 a.m. to 11:00 p.m., and selected sites include Toronto and San Francisco. If you select this option, the report includes events occurring at Toronto between 11:00 a.m. and 12:00 p.m., and at San Francisco between 8:00 a.m. and 9:00 p.m.

5 Click OK.

Result: The print preview window appears.

6 What do you want to do?

IF you want to	THEN
send the report to a printer	a. click the Printer icon. b. set the Print options. c. click OK. d. click the Close box.
return to the Reports window	click the Close box.

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

Chapter 7

Emergency Help

In this chapter

Overview

Introduction

An agent may require assistance from the Supervisor, for example, if the caller is abusive. To contact the Supervisor, the agent presses the Emergency button on his or her phoneset. When the button is pressed, the following events occur:

- the Emergency button on the Supervisor's phoneset lights
- if the Supervisor is logged on to the server, the Emergency Help window pops up on the client PC

This chapter describes how to use Symposium Call Center Server Emergency Help.

Starting Emergency Help

Introduction

When you log on to a server, the Emergency Help application starts automatically.

Viewing the Emergency Help window

The Emergency Help application runs minimized on your taskbar.

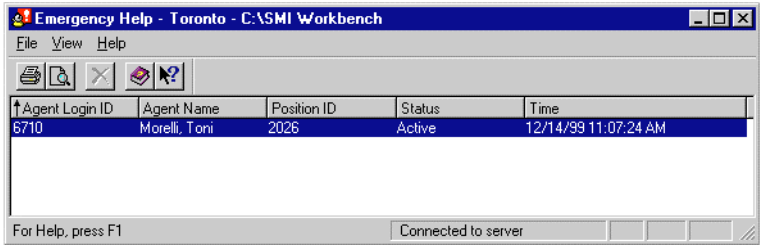
To view the Emergency Help window, double-click the Emergency Help icon:

You can also view the Emergency Help window by choosing Windows → Emergency Help from the SMI window.

Using Emergency Help

When an emergency occurs

When an agent presses the Emergency key, the following window appears on the Supervisor's PC.

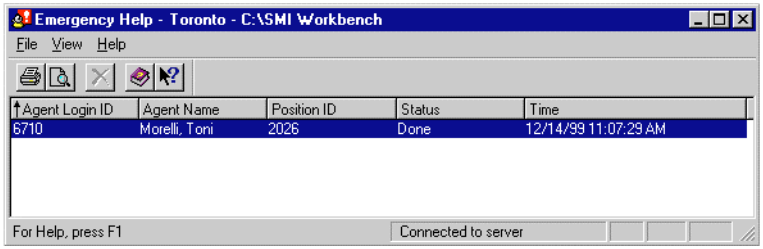


The window shows the name, login ID, and position ID of the agent who pressed the Emergency key. The agent's status is Active.

You can print the list of agents in this window by choosing File → Print. For more information about printing, see the online Help.

When an emergency is resolved

When the emergency has been resolved, and the agent presses the Emergency key again, the agent's status in the Emergency Help window changes to "Done."



When an agent's status changes to Done, you can delete the agent by selecting his or her Login ID, and choosing File → Delete. (You cannot delete an Active agent.)

Chapter 8

Troubleshooting

In this chapter

Overview

Introduction

This chapter provides simple investigative tips to use when solving problems that can arise during daily call center operation. This section is not intended as a comprehensive troubleshooting guide, but as a guideline for supervisors who experience difficulty in completing their normal functions.

You cannot access a report

Situation

You are logged on to the client and are attempting to generate a report. However, the Reports window does not contain the report that you want.

Investigation

To identify the reason why the window does not contain the desired report, answer these questions:

Question	Yes	No
Is the desired report type selected in the View menu?	Check the next question.	Choose the desired report type from the View menu. For example, to display Standard Reports, from the Reports menu, choose View → Standard Reports.
Do you have the necessary access rights?	Check the next question.	Ask your system administrator to assign you the necessary rights.
If the report is a user-defined report, was that report defined on your PC?	Check the next question.	When you save a user-defined report, it is stored on your PC. If you log on to another PC, you cannot access that report. To access a report, always use the PC on which that report was defined.
If the report is a user-defined report, are you logged on with the user ID of the user who created the report?	Check the next question.	When you save a user-defined report, your user ID is stored with it. Only you can access the report. If someone else logs on to the PC, he or she cannot access it. Therefore, make sure that you log on as the user who defined the report.

Question	Yes	No
If the report is a user-defined report, are you logged on to the server on which the report was defined?	Check the next question.	When you save a user-defined report, the server name is stored with it. If you log on to another server, you cannot access the report. Therefore, make sure you are logged on to the server to which you were connected when you defined the report.
If the report is a user-created report, was it imported on this PC?	Check the next question.	A user-created report must be imported on each PC from which you want to run it. If you have not imported the report on your PC, refer to the *Historical Reporting and Data Dictionary.*
Is the report in the Reports window?	No further action required.	Contact your administrator for assistance.

You cannot generate reports

Situation

You are logged on to the client and are attempting to generate a report. An error occurs during report generation.

Investigation

To identify the cause that prohibits reports from printing, answer the following questions:

Question	Yes	No
Is your connection to the server a non-PPP connection?	Check the next question.	Connect to the server from a PC on which the client is installed.
Is the site name correct?	Check the next question.	If the server name changes, you must change the site name. To do so, from the Reports menu, choose File → Change Site Name. The site name specified here must match the name of the server.
If the report is a user-created report, has it been moved?	Check the next question.	If you move the template file for a user-created report, you must reimport the report. Refer to the *Historical Reporting and Data Dictionary.*
If the report is a user-created report, are all data and formulas valid?	Check the next question.	Report the problem to the author of the report.
If the report is a network report, is the network site available?	Check the next question.	Contact the network administrator to determine whether you have access to the network site, and to find out whether the server is currently running.

Question	Yes	No
Can you generate the report?	No further action required.	Contact your administrator for assistance.

Scheduled reports are not printing

Situation

You have scheduled a report to be printed. After the time to print has elapsed, you find that no report was generated.

Investigation

To identify the cause that prevents reports from printing, answer the following questions:

Question	Yes	No
Is your PC turned on?	Check the next question.	The PC on which the report schedule was defined must be running. Check to ensure it is on. If this is not possible, then you must redefine and reschedule your report on another PC.
Is Report Listener running?	Check the next question.	The Report Listener must be running on the PC on which the report schedule was defined. Check to see whether the Report Listener is running. The Report Listener might be running minimized. Drag the cursor over each item on the taskbar, and check the tool tips Help to see if one of them is the Report Listener. If the Report Listener is not running, start it following the instructions in “Starting the Report Listener” on page 161.

Question	Yes	No
Is the default printer configured?	Check the next question.	If you are outputting the report to a printer, then a default printer must be configured on the PC on which the report schedule was defined. To configure a default printer, follow the instructions in “Configuring a default printer” on page 163. **Note:** If the default printer has been deleted since the report was defined, then after the report runs, its status in Report Listener is Successful, even though it did not print.
Does the selection criteria for the report contain less than 250 entities?	Check the next question.	Use the client to check the Selection Criteria–Report Properties property page. Make sure that the number of entities selected is 250 or fewer.
Is the Event Schedule (ES) service running?	Check the next question.	On the server, use the SmonW utility to find out whether the ES service is running. If the service is not running, restart it from the Windows NT Services control panel.
Are you using static IP addresses?	Check the next question.	If you are using Dynamic Host Configuration Protocol (DHCP), make sure that ■ DNS and WINS servers are configured in your network ■ the Symposium Call Center Server is not a DHCP client ■ DNS and WINS are configured properly on the client PC For more information, refer to the *Software Installation and Upgrad Guide*. If you do not have DNS and WINS servers in your network, you cannot use DHCP.

Question	Yes	No
Is the IP address of the client PC unchanged?	Check the next question.	Scheduled reports are saved with the IP address of the client. If the client IP address has changed, you must reschedule the report.
Is your scheduled report printing?	No further action required.	Contact your Nortel Networks customer support representative.

Network call-by-call reports are missing data

Situation

You have generated a network call-by-call report, but the report does not contain information about a call that was answered at the destination site during the selected interval.

Investigation

This problem occurs if the clocks at the source and destination sites are not synchronized. For example, a call is networked out from Toronto at 13:16:00 local time, and is answered at Chicago at 14:14:21 local time. In the Site parameters, the Time Zone Relative to GMT is configured as follows:

Site	Time Zone Relative to GMT
Toronto	GMT-5
Chicago	GMT-6

The Chicago administrator wants a Network Call By Call Statistics report with details about this call, and requests a report for the period from 13:00:00 to 13:15:00 (after converting local time to the time zone of the source site). The requested report does not contain any information about the desired call, because the Network Call By Call Statistics report only contains information about calls networked out from Toronto during this period, and the call was actually networked during the previous period.

To troubleshoot the problem, check and synchronize the clocks at the source and destination servers.

Phantom calls appear in statistics

Situation

Delays caused by phantom calls invalidate the information captured in your real-time and historical statistics. You can use the Phantom Calls Audit tool to delete these false records from your data.

Phantom Calls Audit tool

The Phantom Calls Audit tool automatically scans all active calls known to the Event Browser and searches for possible phantom call candidates based on call states. In general, there are four categories of call states:

- WaitingNoTreatment
- WaitingWithTreatment
- WaitingEnqueued
- Answered

A call is considered to be a phantom call if it remains in its state beyond the time limit set for that state. The following table lists the default time limits for each state.

State	Default clearing limit
WaitingNoTreatment	5 minutes
WaitingWithTreatment	1 hour
WaitingEnqueued	3 hours
Answered	3 hours

For more information about configuring Phantom Calls Audit time limits, contact your Nortel Networks customer support representative.

Glossary

A

accelerator key

A key on a phoneset that an agent can use to place a call quickly. When an agent presses an accelerator key, the system places the call to the configured number associated with the key. For example, if an agent presses the Emergency key, the system places a call to the agent's supervisor.

access class

A collection of access levels that defines the actions a member of the access class can perform within the system. For example, a member of the Administrator access class might be given a collection of Read/Write access levels.

access level

A level of access or permission given to a particular user for a particular application or function. For example, a user might be given View Only access to historical reports.

ACCESS link

A communication channel between the Symposium Call Center Server and Meridian Mail.

ACCESS voice port

A Meridian Mail voice port that is controlled by the ACCESS link.

ACD call

See Automatic call distribution call.

ACD-DN

See Automatic call distribution directory number.

ACD group

See Automatic call distribution group.

ACD routing table
See Automatic call distribution routing table.

ACD subgroup
See Automatic call distribution subgroup.

acquired resource
A resource configured on the switch that is under the control of the Symposium Call Center Server. Resources must be configured with matching values on both the switch and the Symposium Call Center Server.

activated script
A script that is processing calls or is ready to process calls. Before you can activate a script, you must first validate it.

activity code
A number that an agent enters on his or her phoneset during a call. Activity codes provide a way of tracking the time agents spend on various types of incoming calls. They are also known as Line of Business (LOB) codes. For example, the activity code 720 might be used to track sales calls. Agents can then enter 720 on their phonesets during sales calls, and this information can be generated in an Activity Code report.

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

agent
A user who is responsible for handling customer calls.

agent login ID
A unique identification number assigned to a particular agent. The agent uses this number when logging in. The agent ID is not associated with any particular phoneset.

agent to skillset assignment
A matrix that, when you run it, sets the priority of one or more agents for a skillset. Agent to skillset assignments can be scheduled.

agent to supervisor assignment

A definition that, when you run it, assigns one or more agents to specific supervisors. Agent to supervisor assignments can be scheduled.

application

1. A logical entity that represents a Symposium Call Center Server script for reporting purposes. The master script and each primary script have an associated application. The application has the same name as the script it represents. 2. A program that runs on a computer.

application program interface

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

associated supervisor

A supervisor who is available for an agent if the agent's reporting supervisor is unavailable. *See also* reporting supervisor.

Automatic call distribution 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

Primary and supplementary 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 group

An entity defined on the switch for the purpose of call distribution. When a customer dials an ACD group, the call is routed to any agent who is a member of that group.

Automatic call distribution routing table

A table configured on the switch that contains a list of ACD-DNs used to define routes for incoming calls. This ensures that incoming calls not processed by Symposium Call Center Server will be queued to ACD groups and handled by available agents.

Automatic call distribution subgroup

An entity defined on the switch to assign supervisory responsibilities. Each subgroup has one supervisor phoneset and a number of agent phonesets associated with it. Agents can log on to any phoneset within their ACD subgroup. The supervisor must log on to the supervisor phoneset to monitor his or her assigned agents.

C

call age

The amount of time a call was waiting in the system before being answered by an agent.

call destination

The site to which an outgoing network call is sent. *See also* call source.

call intrinsic

A script element that stores call-related information assigned when a call enters the Symposium Call Center Server. *See also* intrinsic, skillset intrinsic, time intrinsic, and traffic intrinsic.

call presentation class

A collection of preferences that determines how calls are presented to an agent. A call presentation class specifies whether a break time between calls is allowed, whether an agent can put DN calls on hold for incoming ACD calls, and whether an agent phoneset displays that the agent is reserved for a network call.

call priority

A numerical value assigned in a script that defines the relative importance of a call. If two calls are in the queue when an agent becomes available, and one call is queued with a higher priority than the other, the agent receives the higher priority call first. *See also* skillset priority.

call source

The site from which an incoming network call originates. *See also* call destination.

call treatment

A script element that enables you to provide handling to a call while it is waiting to be answered by a call center agent. For example, a caller can hear a recorded announcement or music while waiting for an agent.

call variable

A script variable that applies to a specific call. A call variable follows the call through the system and is passed from one script to another with the call. *See also* global variable, variable.

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 Call Center Server that runs on a personal computer or workstation and relies on the server to perform some operations. *See also* server.

command

A building block used with expressions, variables, and intrinsics to create scripts. Commands perform distinct functions, such as routing a call to a specific destination, playing music to a caller, or disconnecting a caller.

controlled directory number

A special directory number that allows calls arriving at the switch to be queued when the CDN is controlled by an application such as Symposium Call Center Server. When a call arrives at this number, the switch notifies the application and waits for routing instructions, which are performed by scripts in Symposium Call Center Server.

Customer local area network

The LAN to which your corporate services and resources connect. The Symposium Call Center Server and client both connect to the CLAN. Third-party applications that interface with the server also connect to this LAN.

D

DBMS

Database Management System

deactivated script

A script that does not process any new calls. If a script is in use when it is deactivated, calls continue to be processed by the script until they are completed.

default activity code

The activity code that is assigned to a call if an agent does not enter an activity code manually, or when an agent presses the activity code button twice on his or her phoneset. Each skillset has a defined default activity code.

default skillset

The skillset to which calls are queued if they have not been queued to a skillset or a specific agent by the end of a script.

desktop user

A configured user who can log on to the Symposium Call Center Server from a client PC.

destination site

The site to which an outgoing network call is sent. *See also* source site.

DHCP

See dynamic host configuration protocol.

Dial-Up Networking

See Remote Access Services.

Dialed Number Identification Service

An optional service that allows Symposium Call Center Server to identify the phone number dialed by the incoming caller.

An agent can receive calls from customers calling in on different DNISs and, if the DNIS is displayed on the phoneset, can prepare a response according to the DNIS.

directory number

The number that identifies a phoneset on a switch. The directory number (DN) can be a local extension (local DN), a public network telephone number, or an automatic call distribution directory number (ACD-DN).

directory number call

A call that is presented to the DN key on an agent's phoneset.

display threshold

A threshold used in real-time displays to highlight a value below or above the normal range.

DMS

Digital Multiplex Switch.

DN

See directory number.

DN call

See directory number call.

DNIS

See Dialed Number Identification Service.

dongle

The attachment plugged into the parallel port of a server connected to a DMS/MSL-100 switch that authenticates the serial number required at the time of server installation.

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

dynamic link library
A library of executable functions or data that can be used by a Windows application. Typically, a DLL provides one or more particular functions and a program accesses the functions by creating either a static or dynamic link to the DLL. 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 the Symposium Call Center Server and the switch.

Emergency key
A key on an agent's phoneset that, when pressed by an agent, automatically calls his or her supervisor to notify the supervisor of a problem with a caller.

event
1. An occurrence or action on the Symposium Call Center Server, such as the sending or receiving of a message, the opening or closing of an application, or the reporting of an error. Some events are for information only, while others can indicate a problem. Events are categorized by severity: information, minor, major, and critical. 2. An action generated by a script command, such as queuing a call to a skillset or playing music.

expression
A building block used in scripts to test for conditions, perform calculations, or compare values within scripts. *See also* logical expression, mathematical expression, and relational expression.

F

filter timer
The length of time after the system unsuccessfully attempts to route calls to a destination site, before that site is filtered out of a routing table.

first-level threshold

The value that represents the lowest value of the normal range for a statistic in a threshold class. The system tracks how often the value for the statistic falls outside this value.

G

global settings

Settings that apply to all skillsets or IVR ACD-DNs that are configured on your system.

global variable

A variable that contains values that can be used by any script on the system. The value of a global variable can only be changed in the Script Variable Properties sheet. It cannot be changed in a script. *See also* call variable, variable.

I

ICM

See Intelligent Call Manager.

Incalls key

The key on an agent phoneset to which incoming ACD and Symposium Call Center Server calls are presented.

Intelligent Call Manager

A high capacity call center TCP/IP interface to the switch that enables the exchange of messages between the switch and a remote host computer.

Interactive voice response

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

Interactive voice response ACD-DN

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

Interactive voice response event

A voice port login or logout. An IVR event is pegged in the database when a call acquires or de-acquires a voice port.

Internet Protocol address

An identifier for a computer or device on a TCP/IP network. Networks use the TCP/IP protocol to route messages based on the IP address of the destination. For customers using NSBR, site IP addresses must be unique and correct. The format of an IP address is a 32-bit numeric address written as four values separated by periods. Each value can be 0 to 255. For example, 1.160.10.240 could be an IP address.

intrinsic

A word or phrase used in a script to gain access to system information about skillsets, agents, time, and call traffic that can then be used in formulas and decision-making statements. *See also* call intrinsic, skillset intrinsic, time intrinsic, and traffic intrinsic.

IP address

See Internet Protocol address.

IVR

See Interactive voice response.

IVR ACD-DN

See Interactive voice response ACD-DN.

IVR event

See Interactive voice response event.

IVR port

See voice port.

L

LAN

See Local area network.

Line of Business code

See activity code.

LOB code

See activity code.

Local area network
A computer network that spans a relatively small area. Most LANs connect workstations and personal computers and are confined to a single building or group of buildings.

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

local skillset
A skillset that can be used at the local site only. *See also* network skillset, skillset.

logical expression
A symbol used in scripts to test for different conditions. Logical expressions are AND, OR, and NOT. *See also* expression, mathematical expression, and relational expression.

M

M1
Meridian 1 switch

master script
The first script executed when a call arrives at the Symposium Call Center Server. A default master script is provided with Symposium Call Center Server, but it can be customized by an authorized user. It can be deactivated but not deleted. *See also* network script, primary script, script, and secondary script.

mathematical expression
An expression used in scripts to add, subtract, multiply, and divide values. Mathematical expressions are addition (+), subtraction (-), division (/), and multiplication (*). *See also* expression, logical expression, and relational expression.

Meridian Link Services
A communications facility that provides an interface between the switch and a third-party host application.

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

Meridian MAX
A Nortel Networks product that provides call processing based on ACD routing.

MLS
See Meridian Link Services.

MM
See Meridian Mail.

music route
A resource installed on the switch that provides music to callers while they wait for an agent.

N

NACD call
A call that arrives at the server from a network ACD-DN.

NCC
See Network Control Center.

network call
A call that originates at another site in the network. *See also* local call.

Network Control Center
The server on a Symposium Call Center Server system where NSBR is configured and where communication between servers is managed.

network script
The script that is executed to handle error conditions for Symposium Call Center Server calls forwarded from one site to another, for customers using NSBR. The network script is a system-defined script provided with Symposium Call Center Server, but it can be customized by an authorized user. It can be deactivated but not deleted. *See also* master script, primary script, script, and secondary script.

Network Skill-Based Routing
An optional feature with Symposium Call Center Server that provides skill-based routing to multiple networked sites.

network skillset
A skillset that is common to every site on the network. Network skillsets must be created at the Network Control Center (NCC).

night mode
A skillset state in which the server does not queue incoming calls to the skillset, and in which all queued calls are given night treatment. A skillset goes into night mode automatically when the last agent logs off, or the administrator can put it into night mode manually. *See also* out-of-service mode, transition mode.

NPA
See Number Plan Area.

NSBR
See Network Skill-Based Routing.

Number Plan Area
Area code

O

object linking and embedding
A compound document standard that enables you to create objects with one application and then link or embed them in a second application.

ODBC
See Open Database Connectivity.

OEM
Original equipment manufacturer

OLE
See object linking and embedding.

Open Database Connectivity
A Microsoft-defined database application program interface (API) standard.

out-of-service mode
A skillset state in which the skillset does not take calls. A skillset is out of service if there are no agents logged on or if the supervisor puts the skillset into out-of-service mode manually. *See also* night mode, transition mode.

out-of-service skillset
A skillset that is not taking any new calls. While a skillset is out of service, incoming calls cannot be queued to the skillset. *See also* local skillset, network skillset, and skillset.

P

PBX
See private branch exchange.

pegging
The action of incrementing statistical counters to track and report on system events.

pegging threshold
A threshold used to define a cut-off value for statistics such as short call and service level. Pegging thresholds are used in reports.

PEP
See Performance Enhancement Package.

Performance Enhancement Package
A Symposium Call Center Server supplementary software application that enhances the functionality of previously released software by improving performance, adding functionality, or correcting a problem discovered since the original release.

personal directory number
A DN on which an agent can be reached directly, usually for private calls.

phoneset
The physical device, connected to the switch, to which calls are presented. Each agent and supervisor must have a phoneset.

phoneset display
The display area on an agent's phoneset where information about incoming calls can be communicated.

Position ID
1. A unique identifier for a phoneset, used by the switch to route calls to the phoneset. 2. Referred to as Telephony/Port Address in Symposium Call Center Server.

primary ACD-DN
A directory number that callers can dial to reach an ACD group.

primary script
A script that is executed or referenced by the master script. A primary script can route calls to skillsets, or it can transfer routing control to a secondary script. *See also* master script, network script, script, and secondary script.

private branch exchange
A telephone switch, typically used by a business to service its internal telephone needs. A PBX usually offers more advanced features than are generally available on the public network.

R

RAN
recorded announcement

RAN route
See recorded announcement route.

RAS
See Remote Access Services.

recorded announcement route

A resource installed on the switch that offers a recorded announcement to callers.

relational expression

An expression used in scripts to test for different conditions. Relational expressions are less than (<), greater than (>), less than or equal to (< =), greater than or equal to (> =), and not equal to (< >). *See also* expression, logical expression, and mathematical expression.

Remote Access Services

A feature built into Windows NT and Windows 95 that enables users to log on to an NT-based LAN using a modem, X.25 connection, or WAN link. This feature is also known as Dial-Up Networking.

reporting supervisor

The supervisor who has primary responsibility for an agent. When an agent presses the Emergency key on the phoneset, the emergency call is presented to the agent's reporting supervisor. *See also* associated supervisor.

round robin routing table

A routing table that queues the first call to the first three sites in the routing table, then the second three sites, then the third three sites, and so on, until an agent is reserved at one of the sites. *See also* sequential routing table.

route

A group of trunks. Each trunk carries either incoming or outgoing calls to the switch. *See also* music route, RAN route.

routing table

A table that defines how calls are routed to the sites on the network. *See also* round robin routing table, sequential routing table.

S

sample script
A script that is installed with the Symposium Call Center Server client. Sample scripts are stored as text files in a special folder on the client. The contents of these scripts can be imported or copied into user scripts to create scripts for typical call center scenarios.

SCM
See Service Control Manager.

script
A set of instructions that relates to a particular type of call, caller, or set of conditions, such as time of day or day of week. *See also* master script, network script, primary script, and secondary script.

script variable
See variable.

second-level threshold
The value used in display thresholds that represents the highest value of the normal range for a given statistic. The system tracks how often the value for the statistic falls outside this value.

secondary directory number
A DN defined on the agent's phoneset as a Centrex line for incoming and outgoing non-ACD calls.

secondary script
Any script (other than a master, network, or primary script) that is referenced from a primary script or any other secondary script. There is no pegging of statistics for actions occurring during a secondary script. *See also* master script, network script, primary script, and script.

sequential routing table
A routing table method that always queues a call to the first three active sites in the routing table. *See also* round robin routing table.

server
A computer or device on a network that manages network resources. Examples of servers include file servers, print servers, network servers, and database servers. The Symposium Call Center Server is used to configure the operations of the call center. *See also* client.

service
A process that adheres to a Windows NT structure and requirements. A service provides system functionality.

Service Control Manager
A Windows NT process that manages the different services on the PC.

service level
The percentage of incoming calls answered within a configured number of seconds.

service level threshold
A parameter that defines the number of seconds within which incoming calls should be answered.

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

site
1. A system using Symposium Call Center Server that can be accessed using SMI. 2. A system using Symposium Call Center Server and participating in Network Skill-Based Routing.

skillset
A group of capabilities or knowledge required to answer a specific type of call. *See also* local skillset, network skillset.

skillset intrinsic

A script element that inserts information about a skillset in a script. Skillset intrinsics return values such as skillsets, integers, and agent IDs. These values are then used in queuing commands. *See also* call intrinsic, intrinsic, time intrinsic, and traffic intrinsic.

skillset priority

An attribute of a skillset assignment that determines the order in which calls from different skillsets are presented to an agent. When an agent becomes available, calls might be waiting for several of the skillsets to which the agent belongs. The server presents the call queued for the skillset for which the agent has the highest priority.

source site

The site from which an incoming network call originates. *See also* destination site.

standby

In skillset assignments, a property that grants an agent membership in a skillset, but makes the agent inactive for that skillset.

supervisor

A user who manages a group of agents. *See also* associated supervisor, reporting supervisor.

supplementary ACD-DN

A DN associated with a primary DN. Any calls to the supplementary DN are automatically routed to the primary DN. A supplementary DN can be a toll-free (1-800) number.

switch

The hardware that receives incoming calls and routes them to their destination.

switch resource

A device that is configured on the switch. For example, a CDN is configured on the switch, and then is used as a resource with Symposium Call Center Server. *See also* acquired resource.

Symposium Call Center Server call

A call to a CDN that is controlled by the Symposium Call Center Server. The call is presented to the Incalls key on an agent's phoneset.

system-defined scripts

The Master_Script and the Network_Script (if NSBR is enabled). These scripts This script can be customized or deactivated by a user, but cannot be deleted. These scripts are This script is the first scripts executed for every local or network call arriving at the call center.

T

target site

See destination site.

TCP/IP

See Transport Control Protocol/Internet Protocol.

telephony

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

threshold

A value for a statistic at which system handling of the statistic changes.

threshold class

A set of options that specifies how statistics are treated in reports and real-time displays. *See also* display threshold, pegging threshold.

time intrinsic

A script element that stores information about system time, including time of day, day of week, and week of year. *See also* call intrinsic, intrinsic, skillset intrinsic, and traffic intrinsic.

Token Ring

A PC network protocol developed by IBM. A Token Ring network is a type of computer network in which all the computers are arranged schematically in a circle.

traffic intrinsic

An intrinsic that inserts information about system-level traffic in a script. *See also* call intrinsic, intrinsic, skillset intrinsic, and time intrinsic.

transition mode

A skillset state in which the server presents already queued calls to a skillset. New calls queued to the skillset are given out-of-service treatment. *See also* night mode, out-of-service mode.

Transport Control Protocol/Internet Protocol

The communication protocol used to connect devices on the Internet. TCP/IP is the standard protocol for transmitting data over networks.

treatment

See call treatment.

trunk

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

U

user-created script

A script that is created by an authorized user on the Symposium Call Center Server system. Primary and secondary scripts are user-created scripts.

user-defined script

A script that is modified by an authorized user on the Symposium Call Center Server system.

utility

A program that performs a specific task, usually related to managing system resources. Operating systems contain a number of utilities for managing disk drives, printers, and other devices.

V

validation

The process of checking a script to ensure that all the syntax and semantics are correct. A script must be validated before it can be activated.

variable

A placeholder for values calculated within a script, such as CLID. Variables are defined in the Script Variable Properties sheet and can be used in multiple scripts to determine treatment and routing of calls entering the Symposium Call Center Server. *See also* call variable, global variable.

voice port

A connection from a telephony port on the switch to a port on the IVR system.

W

WAN

See Wide area network.

Wide area network

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

workload scenarios

Sets of configuration values defined for typical patterns of system operations. Five typical workload scenarios (entry, small, medium, large, and upper end) are used in the Capacity Assessment Tool for capacity analysis for the Symposium Call Center Server.

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NORTEL NETWORKS™

How the world shares ideas.

Reader Response Form

Nortel Networks Symposium Call Center Server Product release 3.0
Supervisor's Guide
P0910107

Tell us about yourself:

Name: _____

Company: _____

Address: _____

_____

Occupation: _____ **Phone:** _____

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

   ☐ New user ☐ Intermediate ☐ Experienced ☐ Programmer

2. How do you use this book?

   ☐ Learning ☐ Procedural ☐ Reference ☐ Problem solving

3. Did this book meet your needs?

   ☐ Yes ☐ No

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

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

   _____

   _____

   _____

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

   _____

   _____

   _____

6. How could we improve this book?

   _____

   _____

   _____

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

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How the world shares ideas.

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Nortel Networks
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M5G 1W7

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