MITEL

MITEL NETWORKS™

6110
Contact Center Management

User Guide

version 3.0
03 June 2002

Contents

Chapter 4 Management Console

Chapter 5 YourSite

Chapter 6 Real-time monitors

Chapter 7 Reporter and Scheduled Reports

Chapter 8 Data-mining tools

Chapter 9 6110 CCM Enterprise Node

Chapter 10 6110 CCM Network and Collector Monitors

Chapter 11 WallBoarder

Chapter 12 4Sight

Chapter 13 Mitel Networks 6150 MCC

Chapter 1 The prairieFyre Contact Center Solutions suite

prairieFyre Contact Center Solutions suite

Features and benefits

The prairieFyre suite provides the following functionality:
- The browser-based user interface works across all 32-bit Windows platforms.
- It operates in conjunction with familiar office productivity tools.
- It is installed on the server only and can be accessed by an unlimited number of users.
- Configuration changes instantly deploy from the server to authorized intranet and Internet-based clients.
- You can remotely manage call center operations and restrict user access to program functions and individual call center elements — log on to any PC and monitor call center operations and program system features.

The prairieFyre Contact Center Solutions suite is designed for the SX-2000, SX-200, and SX-200 with real-time (SX-200 EL/ML LIGHTWARE Release 4.0 and greater) telephone systems. With the prairieFyre suite, you can manage your call center from anywhere, at any time. The suite provides data collection, analysis and storage, forecasting, real-time monitoring, online messaging, historical reporting, data mining, and wall sign messaging.

Licencing

NOTE: An employee is a physical person being tracked in your call center. Employees can have multiple agent IDs. The number of employees you program in the YourSite Database must be consistent with your software licence. If you have more employees programmed than your licence permits, "[licence Is In Violation of Max Agents Allowed]" will appear in place of your company name on the 6110 CCM user interface (UI) and on any reports you generate.

About the 6110 CCM User Guide

The 6110 Contact Center Manager User Guide provides information on the basics of ACD call center management and the use of 6110 CCM programs. The topics covered require the user to have a working knowledge of the Microsoft Windows operating environment and Microsoft Excel 97 or 2000. The tutorials that accompany Windows and Excel provide the information necessary for basic use.

User guide layout

Chapter 1: prairieFyre suite

Chapter 1 describes the features and benefits of the prairieFyre suite, the layout of the document, and basic information about client downloads from our Web site.

Chapter 2: Call center concepts

Chapter 2 describes the inbound call center environment and how resources interact to process calls.

Call centers process a high volume of calls to meet marketing, sales, customer service, technical support, and other business objectives. A fine-tuned call center distributes calls efficiently and optimizes the use of agents and other resources.

Chapter 3: Planning and managing your call center

Chapter 3 instructs you on how to plan and manage your call center.

Chapter 4: Management Console

Chapter 4 instructs you on how to configure the 6110 CCM server.

Management Console is located on the 6110 CCM Enterprise server. With Management Console, you can troubleshoot 6110 problems, manage the SQL database, inspect the SQL database object and back up and restore the database, or critical portions of the database.

Chapter 5: YourSite

Chapter 5 instructs you on how to configure your database and security. You add elements and groups to the database in the Configuration module. You program and enforce security in the Security module.

When you configure the YourSite Database, it must reflect the trunks, lines, routing and timing options, and agent positions in use on the telephone system. You can register account codes in YourSite for individual departments, projects, and services to generate reports. For example, an agent who receives calls for three catalog companies enters account code 1 for calls to company X, account code 2 for calls to company Y, and account code 3 for calls to company Z.
You enter resource information in YourSite so that you can generate reports with 6110 CCM. If you register the aforementioned catalog companies in YourSite, 6110 CCM generates reports on the number, origin, and handling of calls to the three companies.

You implement security to restrict the database teams and groups that individual users view when generating reports and monitoring real-time activities. If you do not implement security, then 6110 CCM users will see all of the devices, reports, and users listed in YourSite when running reports and monitoring real-time activities.

Chapter 6: Real-time Monitors

Chapter 6 instructs you on how to configure and use SuperAdvisor and AgentAdvisor. With SuperAdvisor, supervisors can view agent states and statistics in real-time. With AgentAdvisor, agents can view their own states and statistics.

SuperAdvisor
The SuperAdvisor program provides real-time and cumulative agent statistics, and real-time, by 15-minute intervals, over-the business-day, queue statistics. You can view real-time statistics across multiple queues or agents. You can define alarm thresholds for individual queues or across all queues, and customize display characteristics. SuperAdvisor includes an online chat feature that communicates essential information to one or more agents or supervisors quickly and securely.

AgentAdvisor

The AgentAdvisor program provides real-time agent statistics. It displays the agent state, agent name, agent number, extension number (or queue number for On ACD and on ACD Hold agents), and time in state for each agent. AgentAdvisor also provides real-time and over-the-business-day queue statistics. The displays change color when pre-defined performance thresholds are exceeded to keep agents informed of significant changes in the service provided to callers. AgentAdvisor includes a chat feature agents use to send online messages to supervisors.

Chapter 7: Reporter and Scheduled Reports

Chapter 7 instructs you on how to create reports and scheduled reports. You use Reporter to produce run-on-demand reports, and Scheduled Reports to set up timetables for generating reports.

The Reporter and Scheduled Reports programs provide detailed statistics on the performance of your call center resources. You can generate load activity, resource activity, ACD queue activity, and forecast reports for 15, 30, or 60-minute intervals across any series of days you specify.

The reporting programs provide presentation quality reports and graphs in a Microsoft Excel spreadsheet. You can customize the content and style of report grids and graphs directly in your browser.

Report Distributor

The Report Distributor application prints and e-mails your reports and displays the status of your printing and mailing jobs. It runs in the system tray on your computer and must be running at all times in order to print and e-mail reports automatically.

Chapter 8: Data-mining

Chapter 8 instructs you on various data-mining tools: Inspector, Advanced Inspector, and SuperAuditor.

Inspector

Inspector finds specific call center events, such as the exact time an agent logs off at lunch, the duration of time agents spend in Do Not Disturb from 1:00 P.M. to 2:00 P.M. on Monday, or the maximum number of callers that waited in queue for the day. In a single session you can search through the data from multiple days to find a specific event. The search follows a wild-card format; your specifications do not have to be exact. You can make the search as inclusive or exclusive as you wish. Inspector displays the results in an easy-to-interpret grid that you can print or save to file.

Advanced Inspector

Using Advanced Inspector, you can determine why there are discrepancies between reports, verify the programming of the telephone system and the YourSite Database, and compare the data output by the ACD and SMDR data streams. The results are displayed in a table. The search output also provides a written explanation for the results.

SuperAuditor

With SuperAuditor you can view historical real-time events for any date, at your own pace. As you are viewing the event, you can step forward, jump forward, advance to the end of the day, or rewind to the beginning of the day. SuperAuditor makes it possible for you to analyze when and why past service problems occur. With this knowledge, you can easily solve similar problems in the future.

Chapter 9: The Enterprise Node (CEN)

Chapter 9 instructs you on how to configure both local and remote nodes.

The Enterprise Node permits supervisors to access data from remote sites with a PC using Internet Explorer. A node is also known as a collector.

Chapter 10: Network and Collector Monitors

Chapter 10 instructs you on how to use the Network and Collector Monitors.

Network Monitor

With the Network Monitor, you can connect to a node (collector), view real-time data collection for all nodes, enable a popup alarm that notifies you of any data and system alarms, re-initialize the server, and view the Collector Monitor, which provides detailed node information.

Collector Monitor

The Collector Monitor verifies that the Collector Service is collecting real-time data from your telephone system. It forwards the real-time data to connected clients and to the Structured Query Language (SQL) database. With the Collector Monitor, you can view detailed node information.

Chapter 11: WallBoarder

Chapter 11 instructs you on how to configure and use WallBoarder.

WallBoarder uses one or more Spectrum Light Emitting Diode (LED) wall signs (reader boards) to provide real-time ACD statistics to agents and supervisors, such as the number of calls in queue, the wait time of the longest waiting caller, and the number of available agents. You can customize the size and color of the displayed statistics and the way they move across the wall sign.

Chapter 12: 6115 Interactive Contact Center

6115 CCM is a purchasable option that complements the SX-2000 and 3200 ICP/3300 ICP (Integrated Communications Platform) telephone systems.

Chapter 12 instructs you on how to configure and use SuperAdvisor and AgentAdvisor when used in conjunction with 6115 Interactive Contact Center.

With SuperAdvisor and 6115 CCM, supervisors can interact with agent states in real-time. Supervisors can control the availability of agents and ACD queues. They can log an agent out of one queue and into a busier queue, or place the agent in make busy or do not disturb. In addition, they can log a queue in and out, or place the queue in make busy or do not disturb.

With AgentAdvisor and 6115, agents have more control over their own states.

Chapter 13: 6120 Contact Center Scheduling

Chapter 13 instructs you on how to produce a 4Sight report. The 4Sight report can be imported into 6120 CCS to predict future workforce scheduling demands. For more information on 6120 CCS, please read the *6120 Contact Center Scheduling User Guide*.

Reporter and Scheduled Reports include a 4Sight report. You can accurately predict resource requirements using the Erlang C formula. Erlang C uses your historical call load data, average talk time data, service level percent, service level time, and wrap up time you specify to predict the agent requirement for the time interval and date range in the forecast.

Chapter 14: 6150 Multimedia Contact Center

Chapter 14 instructs you on how to use 6150 CCM.

User guide conventions

This user guide uses the following document conventions.

User Interface (UI) syntax

The following terms apply to actions you perform on user interface (UI) screens:
* *Click* precedes items you select with the mouse, such as buttons and items in list boxes.
* *Press* precedes items you select on the keyboard.
* *Select* or *clear* precedes items you turn on or turn off, such as check boxes.
* *Select* precedes items you select in combo boxes (text boxes with attached list boxes).
* *Using a drag-and-drop operation* means clicking an object on the screen with the left mouse button, and pressing the mouse button while you drag the object to a different position on the screen.

For example: click **OK**; press **ENTER**; select the **PFDatabase** check box.

Italic

Italic typeface is used to set off words, letters, and numbers referred to as themselves in the text, and for characters or words you type in the user interface. For example: *overflow* is the routing of calls to more than one queue; the program saves text files as *MMDDYYYY.sql*.

Quotation marks

Quotation marks are used for memorable or well known information. For example: perform "what-if" scenarios on the resultant data.

Bold

Bold designates paths you select in your root directory and items you click, press, or select. For example: Click **OK**; delete **50** and insert **60**; select the **Check database integrity** check box.

Menu items

Menu items you select are separated by an arrow [=>]. For example, **File**=>**Open** tells you to select the Open submenu on the File menu.

Note

The word **NOTE:** designates essential user information.

Client downloads from the 6110 CCM Web site

Client Downloads

Client Downloads consists of the Critical Component Pack, the Client Component Pack, and Optional Component Pack.

Critical Component Pack

The following Supervisor Desktop applications are included in the Critical Component Pack: MS Visual Basic version 6 Runtimes, MS MFC 6.2 version 6 Runtimes, MS MDAC 2.6 Runtimes, MS Standard OCX and DLL Redistributables, and Third Party licenced Redistributables Required by 6110 CCM/6150 MCC Programs.

Client Component Pack

The following Supervisor Desktop applications are included in the Client Component Pack:

AgentAdvisor
AgentAdvisor is an Agent Desktop applications for agent computers.

This is a download for 6110 CCM that provides a subset of the functionality of SuperAdvisor. It runs as an executable program instead of from within the Internet Explorer environment.

Excel Report Templates
These are the templates for all 6110 CCM performance reports. You must install these on your TEMP directory before you can run any reports. If you change or customize your report templates, please ensure you back up your files before re-running this installation.

Report Distributor
With this download you can print your scheduled reports from your computer. When installed, the Report Distributor resides in your system tray.

Network Monitor
The Network Monitor indicates if your ACD and SMRD data streams are running. If the data streams are not running, you can easily clear the alarms that indicate the data streams are not running and reset the ACD and SMRD links.

Auto Update
If you upgrade your server the Auto Update download will notify you when you open Outlook that a new version of the 6150 Mulitmedia Contact Center is available.

6150 MCC Outlook Extensions
With the 6150 Mulitmedia Contact Center Outlook Extensions download you can run 6150 MCC.

Optional Components

Microsoft Data Access Components (MDAC) 2.6
This is a Microsoft installation that provides access to your structured data across a network connection. It is required for all prairieFyre clients.

Adobe Acrobat Reader
This is the Adobe Acrobat Reader installation for version 5.5. You require Acrobat Reader to view the online user guide and user tutorial.

prairieFyre provides the following additional supporting applications.

Microsoft Internet Explorer 6.0
6110 CCM requires at least IE 6.0 to function.

CyberTerminal
This is an optional installation required *if* you are running a call center with a Mitel SX-200 Digital PBX, *and* you have not purchased the ACD real-time event option from Mitel or your Interconnect. This is the server component that provides a networked-based VT-100 session for clients on the 6110 CCM network. Please refer to the online Help or Chapter 7 of this guide for a more detailed description.

CEN
CEN software implements mulit-site call center capabilities with a single server configuration. The CEN software is designed for geographically dispersed call centers requiring consolidated management reporting and real-time capabilities. CEN software can be installed on a remote Windows NT/2000 Server or Window 2000 Professional computers. Please do not install CEN on the Enterprise 6110 CCM Server computer.

Navigating 6110 CCM

The following tips will help you navigate efficiently in 6110 CCM.

Viewing multiple sessions of 6110 CCM

Sometimes you will need to view two or more 6110 CCM programs simultaneously. For example, you open two or more sessions to perform multiple searches for event records, and to compare report data to SMDR search results.

To run multiple 6110 CCM sessions:

1. In the browser, type in the 6110 CCM Server IP address *http://[your 6110 CCM Server   address]/ 6110 CCM/.* Alternatively, double-click the **6110 CCM** desktop icon.
2. If you do not see the 6110 CCM desktop icon, to create a shortcut to 6110 CCM, drag-and-drop the 6110 CCM Web address to your desktop.
3. Click **Add to Favorites** to add the 6110 CCM Server IP address to your list of favorite addresses and click **OK**.
4. Click **Favorites**, locate the prairieFyre 6110 CCM entry (at the bottom of the list) and move it to the top of the list using a drag-and-drop operation.
5. Optionally click **Make Home Page** to set the 6110 CCM Server IP address as your home page.
6. Enter your username and password and click **Submit**.
7. Click **Change Password** and change your 6110 CCM password.

You can start additional 6110 CCM sessions by clicking the Internet Explorer icon on the Windows Taskbar and selecting 6110 CCM from your list of favorites.

Alternatively, you can click Tools=>Internet Options and set your Home Page to the 6110 CCM program (your 6110 CCM Server IP address) to run multiple sessions. You start the first instance of 6110 CCM by clicking the 6110 CCM desktop icon, and the second (and subsequent) 6110 CCM sessions by clicking the Internet Explorer icon on the Windows Taskbar.

You can open multiple browser sessions of the SuperAdvisor, YourSite Configuration, ACD Inspector, SMDR Inspector, and ACDLink applications from their respective menus.

For example, to open a new session of SMDR Inspector:

1. Click the **6110 CCM** desktop icon and log on to 6110 CCM.
2. On the **Tools** menu, right-click **SMDR Inspector**.
3. Click **Open in New Window** to start SMDR Inspector in a new browser session.

6110 CCM displays the new SMDR Inspector session in addition to your original 6110 CCM session.

NOTE: You can switch between 6110 CCM sessions by holding down the Alt key and pressing the Tab key until you locate the desired session.

Chapter 2 Call center concepts

A fine-tuned call center distributes calls efficiently and optimizes the use of agents and other resources.

Call center concepts

Call centers process a high volume of calls to meet marketing, sales, customer service, technical support, and other business objectives. A fine-tuned call center distributes calls efficiently and optimizes the use of agents and other resources. This chapter describes the inbound call center environment and how resources interact to process calls.

The ACD process

An Automatic Call Distributor (ACD) is a specialized telephone system program for distributing incoming calls. The primary goal of an ACD is to ration calls to agents in a cost-effective manner that provides acceptable service to callers.

To optimize the use of agents, you cross-train them so they can handle a variety of inquiries. Rather than distributing calls to a number of small, specialized agent or extension groups, the ACD distributes them efficiently among the entire pool of available agents. When you consolidate resources (use the Pooling Principle), the same number of call center agents handle more calls while maintaining service levels.

Typically, you program the ACD to ensure the first call to arrive reaches the first available agent or the agent who has been idle the longest. However, you can vary the order of calls and agents to provide superior service to preferred customers, and skills-based routing.

ACD call flow

Figure 2-1 illustrates how call center resources interact to process calls.

Figure 2-1 ACD call flow
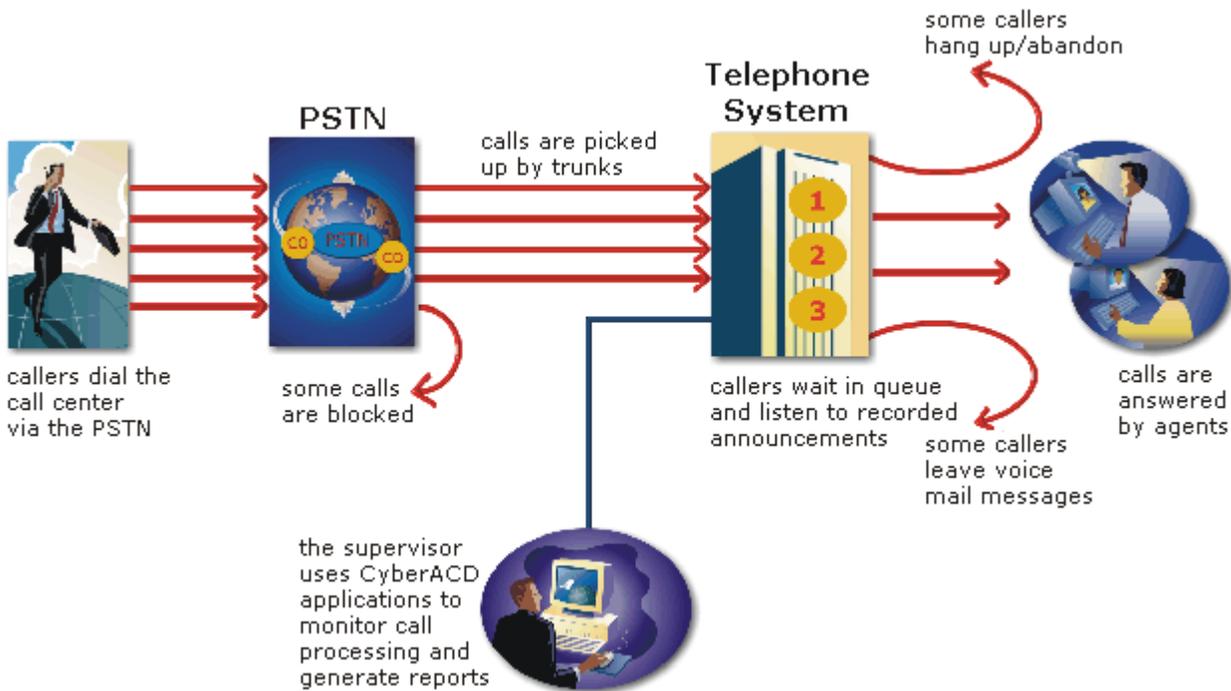
The path of an incoming call is as follows. A caller telephones your call center via the Public Switched Telephone Network (PSTN). (The PSTN is a global collection of Central Offices (COs) interconnected by long-distance telephone switching systems.) The local CO directs the call to one of your trunk groups. An available trunk picks up the call. Typically, calls from the PSTN arrive to the call center over incoming trunks and calls from the call center to the PSTN travel over outgoing trunks. If no trunks are available, the call does not get through to the system (is blocked) and the caller receives a busy signal.

When a trunk picks up a call, it forwards it through to a group of agents answering calls, or to some other answering point. The call arrives at the ACD queue of an agent group. The queue delays the call rather than blocking the call from entering the system. The length of time the caller waits in queue is the queue time. While waiting in queue, the caller listens to product features, announcements, or other messages provided by a Recorded Announcement Device (RAD). The caller can wait patiently in queue for an available agent, leave a voice mail message, or hang up (abandon) the call.

An agent answers the call. The time the caller spends talking to the agent is the talk time. When the call is completed, the agent may need to perform additional work associated with the call. The time taken to perform this work is the wrap up time.

Monitoring the call flow process

Second-by-second (real-time) statistics presented on wall signs and desktop monitors enable you to monitor the service provided to callers. You can monitor the number of incoming calls, the time it takes to process them, the queue load, and the availability of agents using a Management Information System (MIS). The term MIS refers to the processing of data produced by the telephone system. The MIS uses telephone system records to provide forecasting, real-time monitoring, and reporting functions.

Ensuring traffic-carrying efficiency

To optimize traffic-carrying efficiency ensure

- Sufficient trunks are available to carry incoming calls.
- Callers experience a delay in queue.
- There is a random distribution of calls among available agents.

Scheduling to optimize call flow

You schedule agents so the number of incoming calls at any given time typically exceeds the number of agents currently available. The intent is that callers experience a slight delay before agents answer their calls. The expected number of incoming calls forecasted for the time of day, and day of the week influence scheduling decisions.

Call routing

Call routing options you program in the telephone system provide a set of instructions that automate the movement of calls to their intended answering points. You can define options—if the caller dials 1 forward the call to customer service. You can specify re-routing for calls not answered after a set period of time and parse incoming Automatic Number Identification (ANI) and Dialed Number Identification Service (DNIS) data to direct call routing. Figure 2-2 illustrates some common routing options.

Figure 2-2 Call routing
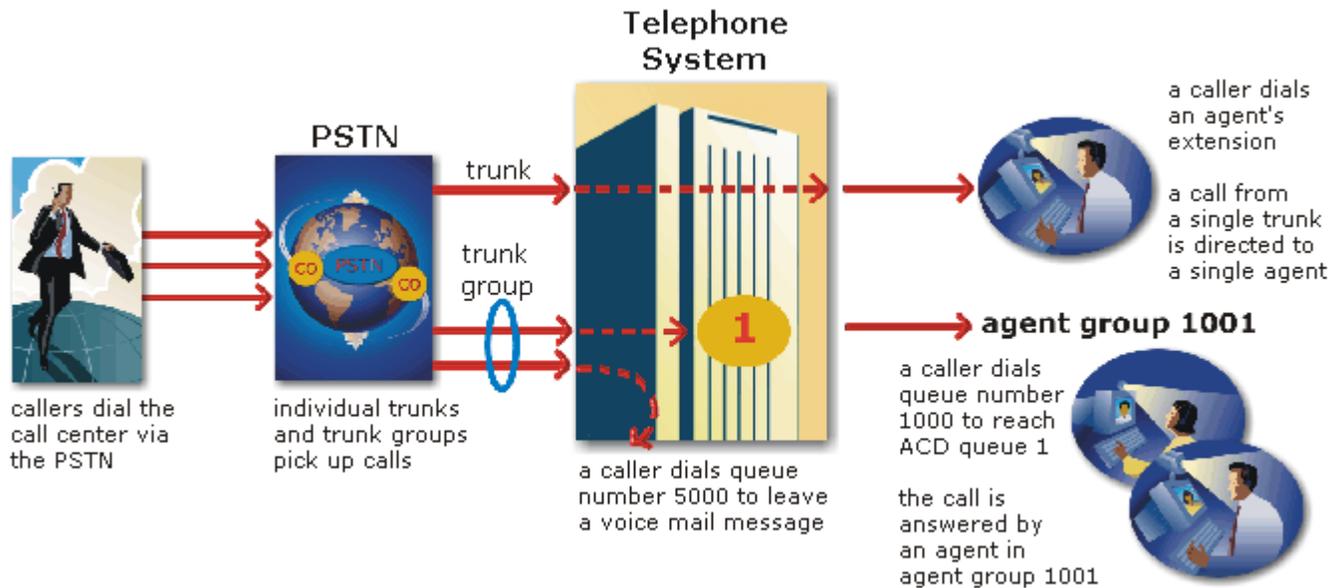
Dialing an agent's extension

In the simplest call scenario, a single trunk picks up an incoming call to your call center. The telephone system presents the caller with options to dial various answering points. The caller dials an individual agent at an extension through a queue number. A queue number is an address mechanism for a queue or other answering point. The programming associated with the queue number defines the routing and timing features of the call. The telephone system collects data on the agent and trunk involved in the call. The ACD management reporting program produces reports on agent and trunk activity.

Dialing a queue

In the next call scenario a trunk group picks up an incoming call to your call center. The system presents the caller with options to dial various answering points. The caller dials queue number 1 to reach queue 1 (Customer Service). The system forwards the call to the first available agent in the agent or extension group associated with queue 1. The call is an ACD call because one dialable number represents all agents in the group. The telephone system collects data records for the call. The ACD management software produces Queue Reports on queue 1.

Call overflow

An ACD call that is not answered immediately is placed in a queue. If an agent does not pick up the call after a set amount of time (the overflow time) the system places the call in the queue of another agent group, in addition to keeping it in the first queue. The first available agent in either group answers the call. The overflow feature limits the delay faced by callers by queuing calls against two or more agent groups, as illustrated in Figure 2-3.

Figure 2-3 Multiple queue routing
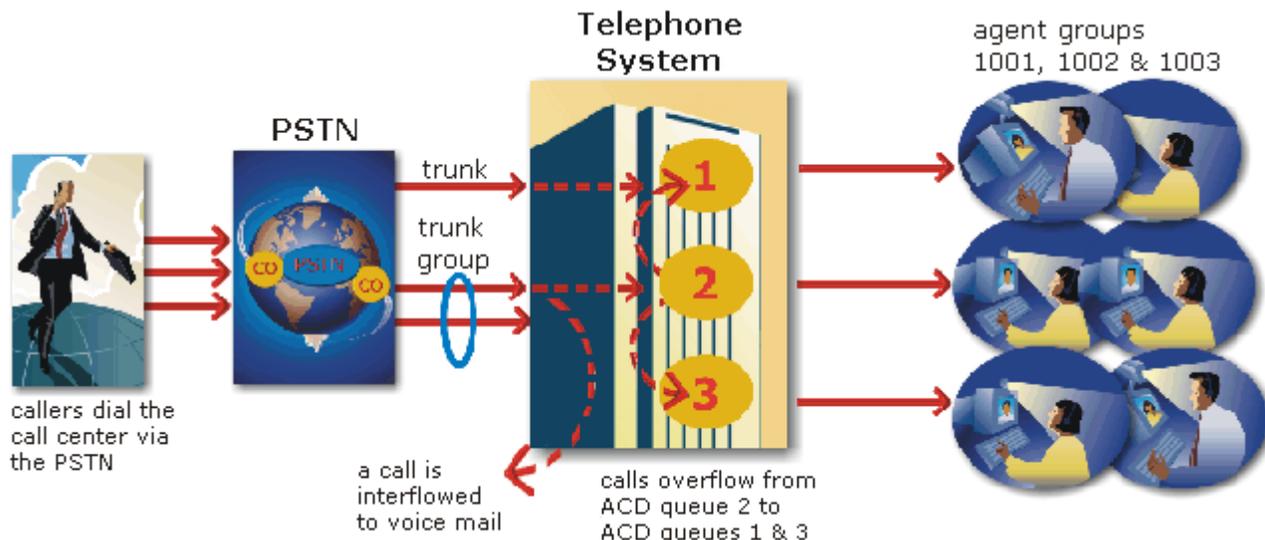
Call interflow

You can program the telephone system to direct a queue delayed call to voice mail or to another answering point. The interflow timer runs independently of the overflow timer. If the interflow timer expires, the system removes the call from the queue and re-directs it to another answering point, such as a trunk or voice mail.

Understanding the inbound call environment

The inbound call center environment has unique characteristics that must be considered in effective planning and management.

Random and predicted call arrival

Calls arrive randomly to call centers. You cannot predict the minute-to-minute arrival of calls. This results in unanticipated increases in workload, and impacts staffing calculations and the load carried by system and network resources.

You can predict the pattern of call arrivals for 15-minute or longer intervals. For example, you can predict that next Monday between 1:00 P.M. and 1:30 P.M. you will receive 60 phone calls. However, you cannot predict how many calls will arrive in the first five minutes, the second five minutes, and so on.

Caller tolerance

Several factors influence a caller's tolerance to queue delays:

- The immediacy of the caller's requirement
- The availability of similar products or services
- The caller's expectations for service
- The time available to make the call
- Whether or not the caller is paying for the call

Chapter 3 Planning and managing your call center

Ensure you have the right resources in place at the right times to handle an accurately forecasted workload at the desired level of service.

Planning and managing your call center

Effective call center management involves having the right resources in place at the right times to handle an accurately forecasted workload at the desired level of service. Commitment to a systematic planning and management strategy is essential; the strategy is based on corporate objectives that you continually access and refine.

Whether you are managing a start-up call center or refining the performance of an existing operation, the process illustrated in Figure 3-1 applies. It is the basic framework for achieving and maintaining your service objectives.

Figure 3-1 Planning cycle
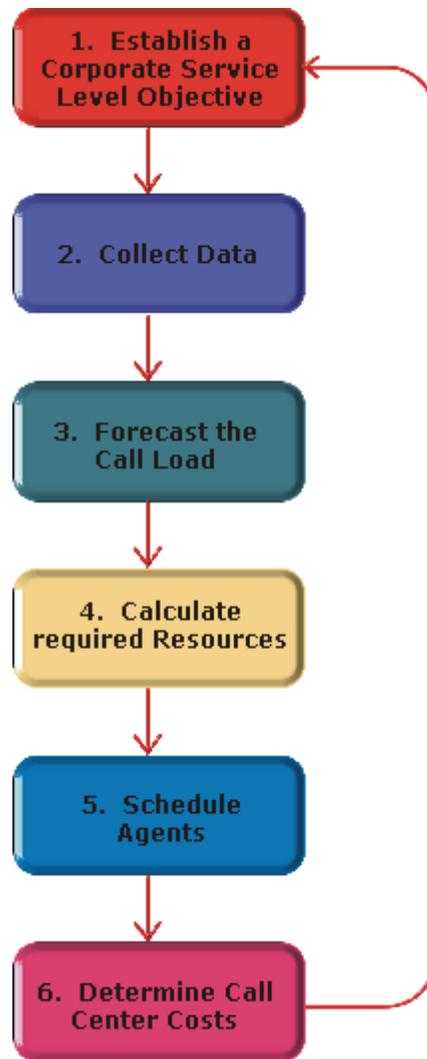
The objective of call center management is to find the right balance between the agents scheduled and the service provided to customers. This involves assessing and re-assessing trade-offs between the service level, agents scheduled, and average call duration for a known call load for each 15-minute or half-hour interval of the day. Collecting, properly interpreting, and applying ACD and other information allows you to accurately forecast the workload and schedule sufficient agents to meet your service objectives.

Step #1 establish a corporate service level objective

Defining and adequately funding a service level should be closely tied to your corporate mission. The service level identifies the average length of time a caller who has obtained a trunk waits for an available agent. It is the basis for planning and budgeting and links the resources you require to your service objectives. Choosing a service objective is the first step in a comprehensive planning and management solution. Once you set a service objective, you should routinely access it to see how consistently you are meeting it, on a 15-minute or half-hour basis.

Call centers in different industries use different criteria for measuring service. Your service level objective should reflect the type of service being provided and the expectations of callers seeking the service. For example, a company that sells magazine subscriptions has less to lose in the outcome of any one call than a car dealership does. A caller to a credit card "lost or stolen" line might expect different service than a caller to a customer service department at a bank. Call center metrics across industries are designed to reflect this.

Performance targets must suit the primary function of a call center. In revenue-based call centers where agents sell products or services, the net revenue per call is considered when defining a service objective. Revenue-based call centers strive to provide a high level of service with minimal blocking and delays.

In cost-based call centers where agents provide customer service, call handling incurs costs but does not provide additional revenues. The level of service in cost-based call centers is typically not as high as the level of service in revenue-based centers. Although the chance of blocking is minimal, an almost certain delay in the ACD queue is to be expected.

Service defined

Service level is expressed as *X percent of calls answered in Y seconds*, such as 80 percent of calls answered in 20 seconds. Why is service level the standard measurement of service? The answer is service level provides the most accurate representation of the callers' experience; it is ultimately the caller who decides what constitutes good service, and whether or not to end a call. The service level is sometimes called the telephone service factor (TSF). It applies to inbound transactions that must be addressed as they arrive.

Service Level

The term *service level* is total number of calls which are answered, abandoned, and interflowed *before a defined threshold time (Service Level Time)*, compared to the total number of calls answered, abandoned, and interflowed. It's the average length of time a caller who has obtained a trunk waits for an available agent. The service level = (Calls Answered + Long Calls Abandoned + Long Interflow) within the Service Level Time ÷ (Calls Answered + Long Calls Abandoned + Long Interflow).

Service Level Percent

The *service level percent* is the proportion of calls, expressed as a percentage, which are answered, abandoned, and interflowed within a defined threshold time compared to the total number of calls answered or abandoned (after the short abandon time).

Service Level Time

The *service level time* is the threshold time used in calculating the service level percentage, such as 90 percent of calls answered in 20 seconds. The service level percentage and service level time are parameters you define as your service objective.

Why is service level more meaningful than other metrics?

Service level is one of many ACD statistics used to measure performance. Each statistic has its purpose. For example, the *grade of service* (GOS) statistic relates the number of trunks to the level of traffic and indicates the likelihood an attempted call will receive a busy signal. It is expressed as a decimal fraction. For example, a GOS of P.02 means a caller will have a two percent chance of receiving a busy signal. Since trunk costs are insignificant compared to agent costs call centers are well advised to schedule sufficient trunks; abandons should be minimal.

A *delayed call* is a call placed in the ACD queue because it can not be answered immediately by an agent. The *probability of delay* statistic relates the number of agents or extensions to the level of traffic carried by the trunks and indicates the likelihood and amount of delay experienced. The GOS, probability of delay, and quality of service rendered by agents provide vital information about the callers' experience, as illustrated in Figure 3-2.

Figure 3-2 Service criteria
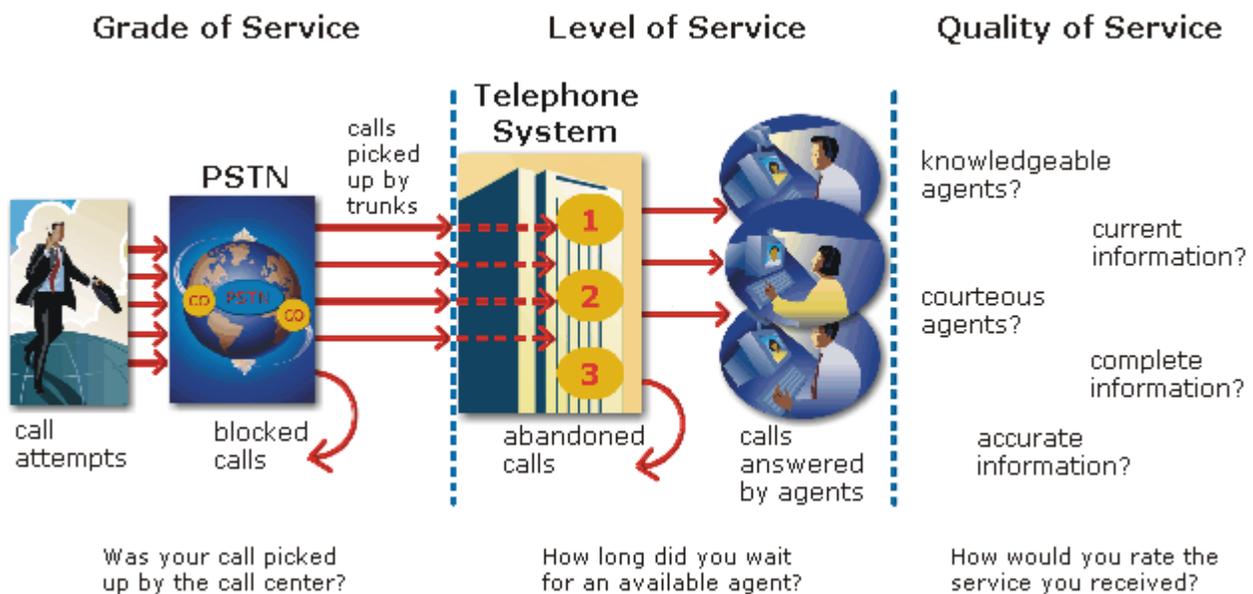
The GOS and probability of delay contribute to our understanding of what happens to the calls not answered in Y seconds, and give meaning to service level. Service level is the primary statistic used in planning and budgeting because it is the most stable measurement of queue activity.

ASA

The average speed of answer (ASA) is an ACD statistic that measures how long the average caller waits on hold before his or her call is picked up by an agent. ASA is a valuable measure of service quality, but is often misinterpreted. The average does not represent what is typically experienced by individual callers. Most calls are answered by agents more quickly than the average, but a small percentage of callers wait several minutes in queue. ASA is a useful parameter, but service level is a more reliable indicator of what callers experience.

Abandonment

ACDs collect statistics on how long callers wait before abandoning calls, and what percentage of calls are abandoned. Unfortunately, abandonment is difficult to forecast because it is impossible to predict caller behavior with any reliability. Sometimes when the service level is high more callers abandon than expected. There are no industry standards for abandonment; it is a somewhat unreliable measure of call center performance. However, abandonment statistics assist in planning service levels, and provide valuable information used to create in-queue and message-on-hold announcements.

Calls Abandoned Parameter

The Calls Abandoned Parameter specifies the value which determines whether a call is a Short Abandoned Call or a Long Abandoned Call. If the abandon time is less than the Call Abandoned Parameter, then it is a Short Abandoned Call. If the abandon time is more than the Call Abandoned Parameter, then it is a Long Abandoned Call.

You assign the Calls Abandoned Parameter (called the Queue Short Abandon Time) values to ACD queues in the YourSite Database.
Callers can abandon after they reach a trunk (before they reach the ACD queue) or while they are in queue waiting for an available agent (either before or after the short abandon time you specify).

Calculating the service level

The *service level* is the total number of calls which are answered, abandoned, and interflowed *before a defined threshold time (Service Level Time)*, compared to the total number of calls answered, abandoned, and interflowed. It's the average length of time a caller who has obtained a trunk waits for an available agent. The service level = (Calls Answered + Long Calls Abandoned + Long Interflow) within the Service Level Time ÷ (Calls Answered + Long Calls Abandoned + Long Interflow).

How do I choose a service level goal?

Contrary to popular belief, there is no industry standard service level. Some call centers base their service level goal on the targets of same-industry companies. In doing so, they assume these companies are actually meeting their intended targets. Companies are setting increasingly rigorous service level targets in sectors where outstanding customer service is the norm. In a survey of over 100 UK call centers Opta Consulting was surprised to find an average performance target of 90 percent of calls answered in 15 seconds. They found that companies setting extremely rigorous targets did not necessarily meet them, and the investment required to achieve "best in class" targets was difficult to justify.

Setting an appropriate service level goal for your call center is not easy. The motivation and expectations of your customers, the availability of similar goods or services, the service level targets of same-industry companies, and the value of calls are things to consider. It may be useful to run some calculations to determine the trade-offs in service level associated with adding or removing an agent, and implement customer satisfaction surveys. When defining your corporate service level, consider several factors and rate their relative importance.

An appropriate service level is one that
- Satisfies callers' expectations for service
- Keeps abandonment in check (at less than five percent)
- Minimizes expenses and maximizes revenue
- Meets with the approval and support of agents, supervisors, and senior management

Consider this modest objective. For a service level of 80 percent of calls answered in 20 seconds, callers receive the following service:

- Approximately 30 percent of callers experience a delay in queue.
- The longest wait time is approximately three minutes.
- The average speed of answer is approximately 12 seconds.

Is this acceptable service for you and for your callers?

Quality of service

Agent statistics reflect the time agents spend in various states and are used to assess agent performance; the average time an agent spends in talk time, make busy, unavailable, and wrap up states directly affects his or her availability and the service level provided to callers.

Service level alone does not ensure customer satisfaction. The quality of the interaction between the caller and agent leaves a lasting impression. The *quality of service* reflects an agent's ability to provide excellent service to each customer. The knowledge of the agent, the accuracy and completeness of the information provided, and the courtesy extended to the caller contribute to the caller's experience.

Silent monitoring

Silent monitoring systems complement ACD statistics by providing a snapshot of quality and productivity in your call center. You can track call handling techniques and determine where improvements can be made in individual performance. Advanced systems capture the voice conversations between agents and callers and record agent data screens for a complete picture of call handling. They provide online evaluation forms so you can annotate recordings with feedback.

Silent monitoring takes the bias out of performance evaluation; it provides a systematic process for monitoring and grading agent calls. You can schedule sessions across different times of the day, days of the week, and evaluators promoting fairness and consistency. Showing agents where improvement is needed is more effective than just telling them. Silent monitoring can contribute to a reduction in call time, a reduction in monitoring time and personnel, and increased training efficiency.

You can use pre-recorded conversations between agents and customers to train agents and for ongoing evaluation. You can use the information to

- Provide recorded examples of exceptional service and unacceptable service to agents in training.
- Record, review, annotate with feedback, and forward call records to agents who then review your comments within the context of the actual call.
- Calibrate and routinely access the scoring consistency of call monitors.
- Assess the effectiveness of current training programs.
- Assess the efficiency of the monitoring and assessment process.

Defining scoring parameters

The parameters used to evaluate how well agents handle calls are based on the purpose of the calls. Goals vary across calls for inbound and outbound services. For example, in an outbound sales environment quality may be based on whether or not the agent made the sale, took advantage of cross-sell opportunities, and adhered to a pre-defined script. In an inbound environment quality may be based on the completeness and accuracy of the information and whether or not the caller's questions were answered satisfactorily. Agents are also evaluated on "soft skills", such as voice quality, pausing at regular intervals, rate of speech, use of positive language, and other listening and communication skills.

Setting performance standards and goals

Once you determine appropriate scoring parameters, you define standards for exceptional and acceptable levels of performance. Assessment standards are based on consensus and must be clearly defined and communicated to monitors and agents. Collaborate with agents in setting performance goals and clearly define exceptional service and interim performance steps. Determine a baseline of current performance and set performance steps for an agent group. Provide agents in the group who meet or exceed the interim target with rewards and recognition commensurate with their performance. When systematically used in training and coaching recorded sessions positively impact productivity. Fair assessment is good for moral and motivation, and contributes to an environment in which agents can learn and grow.

Frequency of monitoring sessions

The frequency of monitoring sessions is determined by individual companies and ranges from once a month to 15 or 20 sessions a month. Implementing five to 10 monitoring sessions per month is common practice. Trainees and agents with consistently low scores are monitored more frequently than other agents. Resource limitations typically influence the frequency of monitoring.

Silent monitoring systems

Silent monitoring systems range from tape recorders to client/server based recording systems. Advanced systems schedule, record, and store voice files in a compressed digital format using a real-time link to your telephone system. They capture any data screens accessed by the agent in addition to voice data. Silences are eliminated to optimize monitoring efficiency. Recording sessions can be played back from any telephone, anywhere, at anytime. You can customize agent evaluation forms and define parameters for quality with advanced systems. They provide activity, status, and management reports for evaluating agents and observation practices.

IT support systems

Information Technology (IT) support systems are commonplace in call centers. Call center agents divide their time between listening to customer requests, entering and updating customer information and other entries, searching for required information, and providing feedback to customers. In order to provide prompt and complete information, agents must have immediate online access to information including customer records and case histories, products and services, and company policies and procedures.

The push to increase agent efficiency and customer service has placed new demands on computer information systems and information technology. Information products that enhance agent productivity are continually being developed. Call center systems are designed to incorporate some, or all of the following specialized support functions.

CTI

Computer telephony integration (CTI) is the merging of computers and telephone systems. Today's computer-based telephone systems deliver synchronized voice and data, voice and data conferencing, automatic information retrieval for calls, caller-based messaging and routing, and desktop productivity tools. You can use customer databases in call handling to enhance customer service and agent productivity. When databases are shared between call center departments each agent can access a caller's contact information, purchasing records, call history, and preferences by a caller ID number.

ANI

*Automatic Number Identification (ANI) i*dentifies the telephone numbers of callers to your call center, *so* agents can receive screen pops with calls. You can connect a database to your telephone system to simultaneously send calls and caller information. The telephone system forwards the caller's telephone number to a software program that relays database records on the caller to the agent. Alternately, the caller enters an ID number that the database associates with a set of records for the caller and the agent is sent the information.

ANI saves agents time since they do not have to ask for and enter a name for a caller, and wait for the database to respond. This time savings significantly impacts staffing requirements and telephone service charges. ANI also identifies telephone numbers of callers who abandon calls so they can be contacted later for potential business.

Reports can identify the volume of usage and costs of internal line numbers, and help you track the long distance distribution per line number and maximize long distance efficiency.

DNIS

Dialed Number Identification Service (DNIS) is a feature of toll-free lines that identifies the telephone number the caller dials. This assists agents who answer calls for more than one business or product line. Each business or product line has its own toll-free number. When a caller dials a toll-free number, the telephone system forwards information to the agent so the agent can identify who the caller dialed. For example, a caller dials a tool-free number for a cruise line. The telephone system sends a script to the agent along with the call. The agent then knows to answer "Good morning. Thank you for calling Southern Cruises," instead of the name of another cruise line serviced by the center.

Automated Help desk workflow

Agents at IT help desks require quick access to customer information and call history, and the ability to rapidly log all support calls and incidents. Advanced help desk packages offer automated desk help workflow systems. They assist agents in logging service requests (tickets), dispatching them to prioritized queues or agents, tracking them, and documenting activities.

External programs, help desk operators, or end users (in Web-based programs) generate tickets. The system generates them manually, or in some cases automatically, in response to system events. It can correlate multiple incidents with single tickets, and multiple problems with a single call.

Automated help desk workflow systems track each step taken in the resolution of a call, with automatic time stamping of all referrals, escalations, reminders, alerts, and email notifications. Calls are prioritized and referred to other departments without reassignment, reassigned (escalated) to other technicians or specialized staff, and placed in an alert condition when they are not resolved promptly. Activities are date and time stamped automatically. Most help desks offer outgoing email notification and paging. Some help desks offer automated logging of incoming e-mails, and automated call acknowledgment e-mails to clients.

Step #2 collect data

Telephone systems generate an enormous amount of real-time and historical data used in planning and management. You use real-time data to monitor the current call load and agent availability so minute-to-minute adjustments can be made. You use historical information in forecasting, staffing, and scheduling. Other critical management information comes from customer surveys, market studies, employees, external departments, telephone networks, workforce management systems, competitors, and the media. Data collection is a continuous process you implement as soon as your telephone system is up and running.

Telephone systems provide detailed report data on every aspect of call transactions. You can program computer-based telephone systems connected to a Local Area Network (LAN). Users on the LAN can view or print real-time and historical reports. With Web-enabled telephone systems, you can view and generate reports in a Web browser. You can monitor call center activities remotely, and distribute reports to people on different networks.

Collecting data on call handling

Call center reporting software displays real-time telephone system data on desktop monitors and wall signs. With real-time data, you can manage current conditions and ensure agents respond to changing call center events. The telephone system provides information on call activity, agent activity, and queue activity.

You can use historical data in forecasting and in assessing the performance of your resources. Historical reports provide vital information on load activity, resource activity, and queue activity. For example, resource activity reports on trunks can tell you the highest number of trunks used during peak traffic periods, and the total duration of calls handled by each trunk for the reporting period. You can determine how busy your trunks are, and whether or not you have the right number of trunks scheduled. You can produce reports categorized by the requirement for call center resources, the reporting period, and by time interval.

CTI provides in-depth information on call transactions. Detailed information on keystroke sequences, databases searched on, and on-screen assistance provides a clear picture of agent activities. With ANI data, you can identify callers by area code and collate information on demographic trends in caller behavior.

Workforce management systems use telephone system data to forecast and schedule agents. Some packages monitor the real-time adherence of agents to scheduled activities, so you know the number of agents currently logged on and available to answer calls. Workforce management systems collect and store real-time adherence data. This data provides a historical account of adherence used in agent assessment.

Customer surveys provide valuable supporting information on callers' tolerance to delay, and expectations for service. They address some of the following questions: Was the agent accessible? Was the caller put on hold for too long? Was the agent courteous and responsive to my request? Was the agent well informed? Did the agent provide the correct information and keep commitments? Call centers use this information to estimate the repercussions of poor service: escalated costs, duplication of work, lost customers.

As the economy moves towards individual, personalized services, new ways of handing calls continue to emerge. These new features add to the complexity of collecting and measuring information. It is vital you establish an integrated, reliable system for measuring the key indicators of performance: the efficiency of call handling, the service callers experience, and their perceptions of that service.

Step #3 forecast the call load

Finding the right balance between resources and traffic volumes is a critical step in effective call center management. Estimating resource requirements is particularly challenging as the number of calls and the total duration of calls expected for a given time interval is difficult to predict. Forecasting involves taking historical data generated by your telephone system and using it to predict future traffic volumes and patterns.

The importance of forecasting

The importance of accurate forecasting can not be overstated. Forecasting is the basis for estimating required resources, such as agents, trunks, and workstations, and impacts call center operations and performance in the following ways:

- The number of blocked and abandoned calls
- The level of service provided to callers and callers' perception of service
- Agent workload, call behavior, and retention
- The accuracy and usefulness of schedules
- The success of periodic sales campaigns

Forecasting is an imprecise science. It involves taking a year (or preferably two or three years) of queue traffic data and performing the following steps:

1. Examine trends in call load patterns.
2. Break the information down into monthly, weekly, daily, half-hour, and 15-minute intervals that reflect call load patterns.
3. Determine the handling times of calls.
4. Modify the forecast based on current call center activities and other considerations, such as absenteeism, agent breaks, holidays, and training.

The range of forecast dates you specify depends on the purpose of the forecast. With long-term forecasts, you can estimate future budgets and expansion opportunities, and establish corporate objectives. With short-term forecasts (of one to three months) you can determine seasonal staffing requirements, plan for short-term sales campaigns, and assess upcoming hiring needs. You can use weekly, daily, hourly and half-hour forecasts to tweak agent schedules and adjust for absenteeism.

Conducting a forecast

Conducting a forecast involves accurately estimating the three components of call load: talk time, wrap up time, and calls offered. The accuracy of your forecast increases markedly with the size of your data sample. For example, the call load estimate derived from data on 30 agents who receive 950 calls will be more accurate than the call load estimate on 10 agents who receive 280 calls during the same period. Extraneous values for talk time and transient changes in agent availability become less significant as the data sample increases.

Most integrated call center management programs include software that will do the preliminary forecasting for you. Forecast programs analyze your historical traffic data and display the results in a spreadsheet program, such as Microsoft Excel. Forecast programs calculate the following parameters based on your historical data.

Call load

The *call load* is the combined effect of the number of calls received by the ACD queue and their duration, or the *calls offered x (average talk time + average wrap up time).*

Calls Offered

All calls received by the ACD queue, regardless of how they are handled or routed, are referred to as the *calls offered*. This includes Calls Answered, Long Interflowed Calls, and Long Abandoned Calls. Calls Requeued, Path Unavailable Calls, Short Abandoned Calls and Short Interflowed Calls are not considered. Telephone system data on the calls offered and average talk time is used by the Erlang C equation in calculating the agents required.

Talk time

The *talk time* is the time the caller spends talking to an agent.

Average talk time

The *average talk time* is the average time the agent spends talking to callers during a given time interval; it is the total average call duration plus any wrap up time you add.

Wrap up time

The *wrap up time* is the time an agent spends completing transactions associated with a call after the agent hangs up. The wrap up time is a standardized period. If an agent requires additional time to complete paperwork or online transactions, the agent can leave the ACD queue temporarily for this purpose.

After you run a forecast, it is useful to examine the data and make adjustments based on present call center conditions. Tweak the forecast by adding or reducing calls based on your intuition and on information gathered by yourself and others. Devise a system that involves the collaboration of supervisors and managers from various departments. Meet routinely to discuss factors that may influence the forecast for the year and adjust it accordingly.

You may need to consider the following issues: hardware or software system changes, expected callers, advertising and media, changes to your products, services, or pricing, new products, product performance, competitors actions, and international, national, and company events. It is vital to have a systematic forecasting process in place that all departments support.

Step #4 calculate required resources

You calculate the agent requirement in conjunction with the trunking requirement. The number of available agents affects the likelihood and length of delay experienced by callers. The delay affects the load trunks must carry. Because the number of available agents impacts the number of trunks required, you calculate the agent requirement first.

Predicting the agent requirement

Agent costs account for over 60 percent of all call center costs. Accurately predicting the agent requirement, making the most effective use of agents, and standardizing and monitoring agent activities are paramount to achieving your service objectives. Agents are your most valuable resource: make team building and team management a high priority.

You can predict the agent requirement for your service level percentage and service level time targets by applying the Erlang C equation to the estimated call load and average talk time.

Erlang C

Staffing models consider important factors unique to the inbound call center environment:

- Call arrival is random.
- Consolidating resources allows the same number of call center agents to handle more calls while maintaining service levels.
- Maintaining high service level targets requires staffing a large number of agents that will be idle a significant portion of the day.

The industry standard Erlang C equation operates on these principals. Most call center reporting packages use Erlang C.

An Erlang measures telephone traffic, or the flow of calls and call attempts to your call center during a given period. One Erlang equals one hour or 60 x 60 = 3,600 seconds of telephone conversation. This could be one call lasting one hour, six calls lasting 10 minutes, or any combination of calls and call durations that equal 60 minutes. The Erlang formulas provide a mathematical basis for making predictions about randomly arriving workloads.

A.K. Erlang, a Danish engineer who worked for the Copenhagen Telephone Company, developed Erlang C in 1917. Agent and delay calculations use the Erlang C equation. It predicts the resources required to keep delay times within your service level objective. Three variables influence the delay time: the number of agents, the number of waiting callers, and the average time it takes to handle each call.

Erlang C has fundamental principles that do not reflect real-world circumstances; it assumes all calls reach the call center and all callers wait indefinitely to reach agents. Because Erlang C assumes no blocking or abandons, it may overestimate the agents you need. Erlang C requires accurate information on call flow where voice messaging and call overflow are employed, assumes your call load prediction is extremely accurate, and assumes you have the same number of agents answering calls the entire half hour.

Although Erlang C has its limitations, it is the preferred planning tool as it provides reasonable traffic estimates for call centers that maintain good service-minimal blocking and few abandons. Erlang C provides theoretical numbers for staffing that you need to assess in light of the following call center realities:

- The call center blocks a certain proportion of calls and some callers abandon their calls.
- Talk time is unpredictable, and although most calls may last two to three minutes, a few calls can last upwards of an hour.
- Agents in training may require more time to process calls.
- Agents may use wrap up (after-call paperwork) time inconsistently during busy periods.
- Not all agents within an agent group are available at all times to handle calls offered to the agent group.

Erlang C predicts staffing needs fairly accurately. However, call centers that use skills-based routing, overflow, interflow, and advanced routing options need to use intuition and experience in adjusting the final numbers.

Service Level

The term *service level* is total number of calls which are answered, abandoned, and interflowed *before a defined threshold time (Service Level Time)*, compared to the total number of calls answered, abandoned, and interflowed. It's the average length of time a caller who has obtained a trunk waits for an available agent. The service level = (Calls Answered + Long Calls Abandoned + Long Interflow) within the Service Level Time ÷ (Calls Answered + Long Calls Abandoned + Long Interflow).

Service Level Percent

The *service level percent* is the proportion of calls, expressed as a percentage, which are answered, abandoned, and interflowed within a defined threshold time compared to the total number of calls answered or abandoned (after the short abandon time).

Service Level Time

The *service level time* is the threshold time used in calculating the service level percentage, such as 90 percent of calls answered in 20 seconds. The service level percentage and service level time are parameters you define as your service objective.

Determining the agent requirement

The Erlang C formula uses your historical call load and average talk time data to predict the agent requirement for the time interval and date range in the forecast. The resultant spreadsheet displays the call load and agents required across time intervals.

Performing what-if scenarios

After you run a forecast, you can perform "what-if" scenarios on the resultant data by changing the value of forecast parameters and recalculating the results. You can enter values for the calls offered, average talk time, wrap up time, and service level percentage and time and recalculate the number of agents required. For example, you can reduce the average talk time and recalculate the agents required and the calls handled across 15-minute time intervals for the shift.

The relationship between agents and trunks

You are already familiar with the terms GOS (probability of blockage) and service level (average wait time). The following definitions are essential to understanding the relationship between agents and trunks.

Delay

Trunk calculations assume no queueing. For trunk calculations, the *delay* includes the time from when a trunk picks up a call until an agent answers it.

Agent load

The *agent load* includes the talk time and wrap up time.

Trunk load

The *trunk load* includes the time from when a trunk picks up a call until the agent finishes speaking to the caller and disconnects. The trunk load does not include wrap up time.

Callers expect to have a 95 percent or better chance of obtaining a free trunk into your call center, and expect to connect to an agent within a reasonable amount of time. There must be sufficient trunks available to pick up calls, and sufficient agents available to handle the level of traffic carried by the trunks. The more agents handling a given call load, the less delay callers' experience. Callers experience a delay if there are insufficient agents available. If the delay is considerable, calls back up and some calls do not reach the call center.

Traffic engineering involves estimating the number of trunks and amount of communications equipment needed to service an anticipated number of callers. It revolves around basic questions concerning the relationships between service parameters and trunk and agent resources. How much traffic can a particular number of trunks handle for a particular GOS? What is the GOS for a particular number of trunks and traffic level? How many trunks are required to handle a particular traffic level and GOS? What is the probability of delay and length of delay experienced for a particular traffic level and number of agents? How many agents are required to handle a particular traffic level for a given set of delay characteristics?

Predicting the trunk requirement

The number of trunks you require reflects the level of traffic expected during your busiest hour of operation. The busy hour is the hour during the workday in which a trunk group carries the most traffic. You calculate the trunk load after you forecast the call load for the busiest hour and determine the number of agents required to handle the call load for your service level objective.

Erlang B

Call centers use the Erlang B equation to estimate the number of trunks required. Erlang B assumes calls are not queued and that callers who receive a busy signal do not attempt to call again. It can underestimate the trunks required. Predicting your trunk requirement involves determining your busy hour traffic and deciding how many blocked calls you can tolerate.

Busy hour traffic

The *busy hour traffic*, measured in Erlangs, is the number of hours of call traffic (or trunk traffic) you experience during the busiest hour of operation. It is important that your busy hour Figure represent the busiest call load your trunks will ever receive, and not just today's peak traffic. The busy hour traffic is the (*average call duration + average delay*) x *calls per hour ÷ 3600*. This value represents the total trunk load (occupancy) in hours.

The *call center traffic* is the average number of trunks busy during the hour in question. One Erlang equals one hour or 60 x 60 = 3,600 seconds of telephone conversation. If a call center experiences 6.12 erlangs (or 6.12 hours of telephone conversation) during an hour, an average of six trunks were busy.

GOS

The *Grade of Service* (GOS) value is a decimal fraction. A GOS of P.02 means a caller has a two percent chance of receiving a busy signal. Call centers use GOS in calculating the number of trunks required. It is important to specify a GOS that is right for you in order for the trunk calculation to be realistic.

Determining trunk requirements

Traffic calculators used to predict call center resource requirements are available on the Web from companies such as Westbay-www.erlang.com. You can obtain basic calculators at no cost. Calculators that display and print results or calculations made during the previous week are available at a modest cost.

To calculate the trunks required you simply input two of the Figures and calculate the third. For example, if you know that your busy hour traffic is 10 erlangs and you want to determine how many trunks are required if only two calls are blocked in every 100 call attempts, you input the busy hour time (10) and your target rate of blocking (0.02). The calculator displays a value for the trunks required (17).

Figure 3-3 illustrates the trunks required across a spectrum of GOS values. Whether you chose a GOS of 0.01, 0.05, or somewhere in between these values reflects how may calls per 100 call attempts you can afford to lose. In revenue-based call centers minimal blocking and delay is a priority.

Figure 3-3 Estimating the trunk requirement

Calls per Hour	Target GOS				
	0.01	0.02	0.03	0.04	0.05
100	13	12	11	11	11
150	18	16	15	15	14
200	22	20	19	19	18

Average Talk Time = 240s

Although some call centers base the trunk requirement on a staff-to-trunk ratio, such as 1.5 trunks per agent, many use the Erlang B equation. Whatever ratio results will be the right one for you.

It is better to slightly overestimate than slightly underestimate the number of trunks required: trunks are inexpensive, compared to agent costs. You can always cancel a trunk if periodic trunk load calculations show low occupancy on the trunk.

No staffing approach is absolute. You need to acknowledge the assumptions implicit in your calculations and use common sense when estimating your resource requirements. When you schedule resources, they must be closely monitored to ensure you are making full use of them.

Step #5 schedule agents

Scheduling involves accurately forecasting the workload and determining which agents should work which shifts. This has traditionally been a labor-intensive manual process for call center supervisors. You can schedule agents for breaks, split shifts, ACD and non-ACD work periods, repeating work patterns, holidays, and on call work. You can categorize agents by pay level, overtime eligibility, skill level, employment status (part time or full time), and scheduling preferences. Matching these shift and agent variables to the anticipated workload, and re-allocating agents in response to employee absenteeism can be a daunting task.

Scheduling is becoming increasingly challenging, as call centers support a wider range of products and services, and agents require more frequent and specialized training. Advances in technology have automated many agent tasks and have resulted in more varied and challenging calls and responsibilities. Accurately forecasting and building schedules that reflect the workload as it changes across intervals for days of the week, weeks of the month, and seasons of the year is essential in meeting your service objectives. You need a schedule that accurately matches agents to the anticipated workload and agents who aspire to adhere to the activities scheduled.

You can track the availability and activities of agents throughout the day and verify agents are performing the duties for which they are scheduled. Not adhering to the schedule, such as forgetting to log out for a break, or performing non-ACD work when scheduled to perform ACD work (answer telephones) adversely affects your service level and the moral of other agents who must compensate for the unavailable agent.

The shrinkage factor

Accurately forecasting the workload and scheduling agents to satisfy your service level objective is a good start, but does not account for the activities that prevent agents from sitting at their desks and answering telephones. Agents scheduled for ACD work can be involved in some of the following activities:

- On a bathroom break
- Making or receiving personal calls
- Conferring with the supervisor or another agent
- On the phone with other departments
- Sending emails or faxes
- Involved in a lengthy difficult call
- Prolonged in after-call work
- Absent due to illness or compassionate leave

To account for short-term or daily unscheduled absences, you can calculate the rostered staff factor (shrinkage factor). The *shrinkage factor* is a numerical value that defines the percentage of time agents are scheduled to work but are unavailable to answer calls. It tells you the number of agents you must schedule in addition to the base number of agents required to meet your service level. You calculate the shrinkage factor for one or more agent groups as follows:

1. Determine the base staff forecasted by hour or half hour for the day.
2. Make a list of activities that prevent ACD agents from answering calls.
3. Add the base staff to the number of agents who are unavailable to answer calls because they are absent, on break, at a unanticipated meeting, etcetera.
4. Calculate the shrinkage factor for each time interval by dividing the scheduled staff   by the base staff required to answer telephones.

The result is a set of shrinkage factors that represent the expected shrinkage by half hour, as illustrated in Figure 3-4.

You multiply shrinkage values against the base staff required on telephones when setting future schedules. If your agent requirements vary considerably on certain days of the week, you can calculate a separate set of shrinkage factors for these days. You must use your good judgement in identifying absences that are relevant to include in your shrinkage factor calculations; anticipating higher absenteeism on Fridays and Mondays is a safe bet while factoring in daily compassionate leave is not. As with all steps in call center planning, routinely assess the accuracy of your shrinkage predictions and adjust them as required.

Figure 3-4 Calculating the shrinkage factor

	Base Staff Required on Phones		Break	Absent	Research & Unscheduled Non-ACD Work		Scheduled	Shrink Factor
13:00 - 13:30	50		12	5	4		71	1.1
13:30 - 14:00	54		0	5	7		66	1.22
14:00 - 14:30	48		8	5	3		64	1.33

$$\text{Shrink Factor} = \frac{\text{Scheduled Staff}}{\text{On Phone Agents}}$$

Creative scheduling

Now that you have adjusted your agent requirement to account for unanticipated absences, the next step is to design a schedule that makes the most of your resources. The following examples illustrate ways to adequately staff a call center without having agents sit idle during slower periods.

Scheduling split shifts

Although not everyone likes to take a long break in the middle of a shift, for some agents split shifts fit well with priorities outside of work. For call centers that experience heavy call traffic in the morning and evening, split shifts prevent overstaffing during these periods.

Staggering shifts

Staggering shifts allows you to maintain staffing levels over busy periods or periods when agents are on breaks. For example, one set of agents could start at 8:00 A.M., a second group at 9:00 A.M., and a third group at 10:00 A.M. so the call center is fully staffed when it starts getting busy mid morning. Alternately, you could schedule morning and afternoon shifts that overlap from noon until 1:00 P.M. to enable the morning shift to break for lunch while the afternoon shift answers calls.

Staggering breaks

Making slight adjustments to the timing of morning, lunch, and afternoon breaks has a tremendous effect on call handling, as illustrated in Figure 3-5. The Erlang C equation predicts 28 agents can handle 300 calls, each lasting 280 seconds and delayed 20 seconds.

Figure 3-5 Staggering breaks to optimize call handling

Calls Handled	Call Duration	Average Delay	Required Agents
300	280s	20s	28
300	280s	15s	29
316	280s	20s	29

Figure 3-5 illustrates that changing the availability of only one agent decreases the average delay time by five seconds, and allows the call center to handle 16 additional calls.

Forecasting non-ACD work

Not all non-ACD work must be performed immediately. For example, call-backs to clients, e-mails, and discussions with staff and supervisors can sometimes wait until less busy periods. Forecast and schedule non-ACD work for slow times to ensure sufficient agents are available during peak periods. Set availability priorities and regularly communicate them to agents.

Scheduling part-time agents and agents on call

When practical, scheduling part-time agents and agents on call can be an effective strategy for topping up your pool of available agents. Scheduling agents on call is particularly useful for days of the week and seasons when absenteeism is noticeably higher.

Call routing to optimize coverage

To optimize service, you can use routing strategies that involve resources outside of the target agent group.

Overflowing calls to less busy agent groups

You can overflow calls from busy agent groups to less busy agent groups during peak periods. You can route calls to agents who primarily perform non-ACD work but act as reinforcements during busy periods, and to supervisors.

Employing call-back messaging

You can program the ACD to forward calls to voice mail so callers can leave messages instead of waiting for live agents. Call-back messaging helps to balance agent workloads between peak call periods and slow periods.

Contracting calls to customer care bureaus

Contracting calls is a growing industry. During peak periods, you can route simple, routine calls externally to customer care bureaus. Service bureaus collaborate with call centers to set up scheduling and monitoring practices, and train agents to handle calls that vary in complexity.

Employing ACD enterprise call routing

Call centers that provide extended, or around-the-clock service, can interflow calls to other sites. For example, you can interflow mid-day calls received by a busy center in San Francisco to agents working the late-afternoon shift at a center in Philadelphia. This optimizes call handling without scheduling additional agents.

Scheduling considerations

Scheduling should be a collaborative effort. Agents have schedule preferences, and want to know when they are working well in advance. Agents are more likely to adhere to schedules if they are involved in defining the conditions of schedule adherence and non-adherence, and in other areas of the planning process.

Producing long-term schedules is less efficient than producing monthly schedules, as call center conditions and agent availability are continually changing. Short-term scheduling is more accurate, but less popular with agents. It is important to find a good balance.

How accurate is your scheduling?

You can measure the effectiveness of your scheduling process. Create a line graph of the service level for each half-hour interval for each day over the past week. Draw a horizontal line across the graph to indicate your service objective. Look for inconsistencies in the service provided for different time intervals across days, and how far you stray from your service objective.

If the service level is erratic, you may have enough resources in place, but they may not be consistently available to answer calls. If the service level is inconsistent at certain time intervals across the week, or you are not meeting your service level objective, investigate to see if you are adequately staffed at these times and are making the best use of resources. Try to assess how consistently the agents are responding to real-time information displays. Determine if they are restricting non-ACD activities to slow periods and adhering to the schedule.

Workforce management tools

Workforce management tools assist you in scheduling agents for work and holiday periods. Many packages offer an integrated forecasting component that uses historical data to partially automate the scheduling process for established agents. Scheduling is not entirely automated: you must tweak agent schedules and enter shift and agent variables for agents manually.

Step #6 determine call center costs

An effective budget conveys what is currently happening in the call center, projections for the upcoming year, and business objectives. It is important to highlight the trade-offs between the service provided to callers and costs to the organization by developing at least two budgets that reflect different scenarios.

You need to provide a clear indication of how the money is being spent, what you are doing to reduce or curb spending, and what equipment is required to meet service objectives and expected growth over the next year. Budgeting is on-going process that needs continuous refinement.

A breakdown of expenses

The costs associated with call center operations include

- Loaded labor costs
- Equipment and automation costs
- Transmission costs

Loaded labor costs include wages, fringe benefits, and facilities, and account for over 60 percent of call center costs. This is a significant cost and underlines the importance of accurate forecasting and scheduling. Equipment and automation costs include the cost of the telephone system, computer systems, and furniture, and account for about five percent of total expenses. Transmission costs include costs incurred for voice (telephone lines) and data (email, fax, and modem) transmission, and account for 25 to 30 percent of call center costs. Transmission costs have decreased considerably in the past few years and are continuing to drop. In revenue-based call centers, toll-free lines cost approximately 15 cents per minute, or nine dollars per hour, per line.

Cost of delay

When insufficient agents are available to handle a given call load, the delay increases as does the trunk load. Calls are queued. For toll-free services each call delayed in queue is a cost to the organization. You are charged for the toll-free service from the time a trunk picks up a call until an agent completes the call and hangs up. The expense of queueing callers is known as the *cost of delay*. Staffing affects toll-free service costs: if insufficient agents are available and the service level is continually low, network costs will be high. You need to consider the cost of delay when estimating the agent requirement, and closely monitor it.

Cost per call

You use a cost-per-call analysis to measure call center profitability and performance. The *cost per call* measures labor, communication, and equipment costs against the revenue generated. You calculate it by dividing the total cost by the total calls for a particular period of time.

Average call value

You use the *average call value* in revenue-based call centers. You calculate it by dividing the total revenue by the number of calls received for a given period. Sales and reservations environments use the average call value; the value of each call is balanced against the service provided to customers.

Anticipating growth

Predicting company growth is a challenging and essential aspect of call center costing. Growth predictions impact budgeting considerations and must be clearly communicated to senior management. It is useful to map out your projected costs and time frames for the upcoming year and substantiate them with statistics and graphs. Determine when and how many resources you require, and lead-time issues.

Chapter 4 Management Console

Keep on top of system settings with Management Console. Edit comport values and IP addresses.

Management Console

There are two versions of the Management Console application: Management Console Enterprise and Management Console Node. Call centers that have 6110 CCM Server software installed use Management Console Enterprise. Call centers that do not have 6110 CCM Server software installed use Management Console Node.

You use the Management Console application for configuring your database if you have the SX-2000 or 3200 ICP/3300 ICP, and for troubleshooting problems, SQL database management, and SQL database object inspection. You can verify the existence of all critical 6110 CCM Database objects, change your IP address and comport settings, and back up and restore the 6110 CCM Database or critical portions of the database. You also use Management Console to configure multi-site monitoring and reporting.

You start the Management Console program on the 6110 CCM Server. Before you start Management Console you must log on to the Windows NT Server with an account that has administrative privileges.

Using Management Console

To start Management Console:

1. Log on to the Windows Server with an account that has administrative privileges.
2. Click **Start**=>**Programs**=>**Mitel Networks**=>**6110 CCM Management Console** to start Management Console.

Figure 4-1 appears. Management Console consists of the System Settings, Enterprise/Nodes, and Database (Management Console Enterprise version only) tabs. You use the System Settings and Enterprise tabs to change settings in the registry. You use the Database tab to view 6110 CCM Database records and perform diagnostics.

Figure 4-1 Management Console Enterprise - System Settings tab
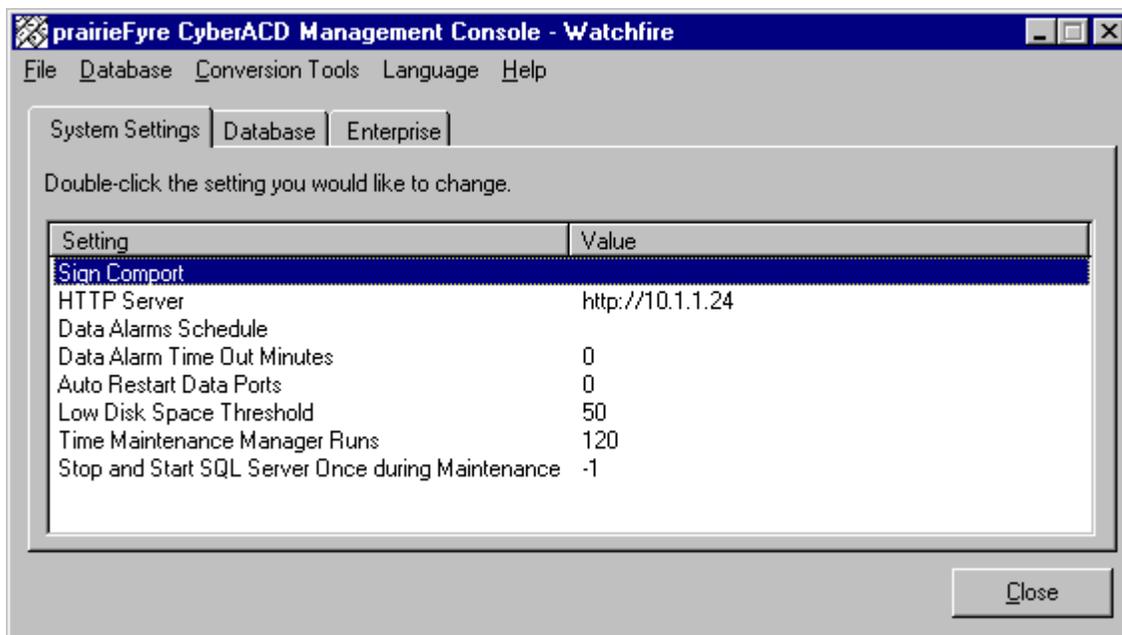
Management Console has the following menus.

File menu

You can demonstrate the complete functionality of 6110 CCM using a simulation mode. You must click the Local Node Simulation Settings command and select the Run in simulation mode check box to run 6110 CCM in simulation mode.

The Reload System Settings command refreshes the values displayed on the System Settings tab.

The 6110 CCM User Manager command specifies 6110 CCM users (managers and supervisors), and which 6110 CCM applications the managers and supervisors are authorized to use.

The Force Collector Settings Reload command forces the main NT Enterprise Service on the 6110 CCM Enterprise Server to reinitialize the local enterprise nodes.

The Force Node Synchronization command synchronizes the raw data from remote nodes (CENs) with the data stored on the local hard drive of the 6110 CCM Enterprise Server.

The Exit command quits Management Console.

Database menu (Management Console Enterprise version only)

The Load SQL Databases command updates the settings displayed on the Database tab.

The Launch prairieFyre Query Tool command starts an advanced diagnostic tool used for examining database data. It is intended you use this tool on technical support calls with prairieFyre.

The Change 6110 CCM Login Password command edits the default 6110 CCM Web application login account. This is a single account that validates user logins. Before you click Change 6110 CCM Login Password, you must click Database=>Load SQL Databases.

The Change SQL System Administrator Password command edits the administrator password.

The Truncate SQL Transaction Log and Shrink Database Files command manually shrinks the transaction logs and SQL database files on the 6110 CCM Server. This action is performed by the prairieFyre Maintenance Service during the nightly maintenance routine.

The SQL transaction log is a critical part of the SQL Server. It is used for disaster recovery and up-to-the-second restorations. If the SQL database transaction log reaches the 100 MB maximum without a backup being done, then the SQL server will stop working. Therefore, ensure the prairieFyre Maintenance Service is always enabled.

During the prairieFyre Maintenance Service nightly routine SQL writes a checkpoint into the transaction log. The log marks a certain amount of space as available to ensure it operates continuously. The Truncate and Shrink SQL Transaction Log function programmatically causes a checkpoint to be written into the log. Although this function helps move 6110 CCM towards a zero-maintenance model, it is not a substitute for implementing and following a regular backup plan.

The Re-Index Database Tables command manually re-indexes the SQL database tables. This action is performed by the prairieFyre Maintenance Service during the nightly maintenance routine.

The Start SQL Server and Stop SQL Server commands manually stop and restart the SQL Server. These actions are performed by the prairieFyre Maintenance Service during the nightly maintenance routine. The Back Up YourSite Configuration command backs up the current programming in the YourSite Database to a file in your Temp directory. The naming syntax is MMDDYYYY.sql.

The Restore YourSite Configuration command restores the YourSite Database to the time of your last database backup.

The Back Up 6110 CCM Database command backs up the current 6110 CCM Database configuration to a file in your Temp directory. The naming syntax is PFDB_BackupMMDDYYYY.bak.

The Restore 6110 CCM Database command restores the 6110 CCM Database to the time of your last database backup. Call prairieFyre technical support at (613) 599-0045 before you restore the 6110 CCM Database.

The Summarize Data command uploads historical data from the telephone system to the prairieFyre Service and SQL database for a particular date range.

If you run a report and notice that data for a particular device is missing from the report output, verify the device is programmed in the telephone system and in the YourSite Database. If you determine the device is missing from the database, add it to the database and use the Summarize Data command to update the prairieFyre Service and the SQL database with the complete raw telephone system data (stored on the local hard drive). You can then produce reports on the device.

The Notify Realtime Clients command updates the SuperAdvisor, AgentAdvisor, Reporter, and Scheduled Reports applications with any changes you make to the YourSite Database.

The Delete Data from Database command deletes all data files from the database tables.

Conversion Tools Menu (Management Console Enterprise version only)

The Convert V2 6110 CCM Data Files to V2.5 command updates the raw 6110 CCM data files from version 2 to version 2.5.

To update the raw data files:

1. Click **Database**=>**Convert V2 6110 CCM Data Files to V2.5**.
2. Click **Move Files** to move the source data from the DataDirectory directory to the Node_01 destination directory.
3. Click **OK**.

The Convert V5 Toolbox Database command exports your existing database to ACCESS and converts it to a format 6110 CCM can use.

To convert the database:

1. Click **Database**=>**Convert V5 Toolbox Data**.
2. Click **Browse** and select the directory housing your existing database data.
3. Click **Convert** and click **Close**.

The Convert V5 Toolbox Text Files command converts your existing text files to a format 6110 CCM can use.

To convert the text files:

1. Click **Convert V5 Toolbox Text Files**.
2. Click **Move Files** to move the source data from the Desktop directory to the 6110 CCM Desktop destination directory.
3. Click **OK** and click **Exit**.

The Convert V2 6110 CCM Database to V2.5 command updates the version 2 6110 CCM Database to version 2.5.

To update the database:

1. Click **Convert V2 6110 CCM Database to V2.5**.
2. Click **Convert** to convert the database and update all users and schedules.
3. Click **Close**.

Help menu

The Contents and Index option provides access to the current Help file. The About option provides Management Console licencing information.

Enabling the Real-time Demo Simulation on the 6110 CCM Server

To run the simulation, you must perform a complete installation of the 6110 CCM production version software (preferably your FREE in-house demonstration software).

With a typical installation, prairieFyre automatically provides a sample database, PBX simulation data files, and a SuperAdvisor real-time profile. To locate these files, click <drive:>\program files\prairiefyre software\6110 CCM\acd manager\demo.

Create the 6110 CCM Database

To restore the demo database:

1. Click **Start**=>**Programs**=>**prairieFyre Software Inc.**=>**prairieFyre Management Console**.
2. Click **Database**=>**Restore Database** and navigate through the restore wizard. Ensure you select the directory where the demo database files reside: <drive:>\program files\prairiefyre software\6110 CCM\acd manager\demo\demodb.
3. Click **Finish**.

Before you generate example reports, you must summarize the demo data into the recently restored database.

To summarize the data:

1. **Start** Management Console and click **Database**=>**Summarize Data**.
2. Select **March 16, 2001** and click **OK**.

To run 6110 CCM in simulation mode:

1. In Management Console, configure the comports to "read from a file", and select the **A20010316.txt** and **S20020010316.txt** files included in the **DemoData** folder.
2. Click **File**=>**Local Node Simulation Settings**.
3. In the **Local Node Simulation Settings** dialog box, select the following settings:

*   The Run in simulation mode check box enables the 6110 CCM simulation mode.
*   The Enable 6110 CCM Interactive simulation mode check box allows you demonstrate the 6115 CCM functionality without a MiTAI link to the PBX.

The next two settings specify the intervals during the day for which you read data.

*   The Run fast from midnight until this time option skips through the file to a point in time where there is activity in the call center. In this case, select 8 A.M.
*   The Run fast from this time to midnight option specifies the point in time you would like to stop reading data and fast forward to midnight (to the next day).

This function skips through files to midnight. In this case, select 5 P.M.

Additional simulation options

The Run simulator for this many days option replays the same SMDR and ACD files repeatedly for x number of days. It dynamically changes the date in the SMDR and ACD files displayed in the real-time and report applications.

The Run simulator at this time multiplier option varies the speed at which the ACD and SMDR files are read. For example, if you choose 10, the simulator will run through 10 seconds of the ACD and SMDR files for each second of time that elapses.

To stop or start the real-time simulation, navigate to the Services window, and stop and start the prairieFyre Collector Service.

To log on to 6110 CCM, type demo for the username and demo for the password.

Gaining access to database menu options

You logged on to the Windows NT Server to start Management Console. You do not need to log on a second time if you only want to change system settings, such as the wall sign comport value. You do not need to log on to the SQL Server to back up or restore the YourSite Database: SQL Server uses your current credentials.

You must log on to the SQL Server to gain access to all database menu options. To log on, you click Database=>Load SQL Databases. The first time you log on to the SQL Server, you use the following credentials:

> Username: sa
> Password:

To change the sa password, click Database=>Change SQL System Administrator Password. Be sure to record the new password for your records. Do not disclose the password to anyone who does not absolutely require it.

System Settings tab

You use the System Settings tab to change settings in the registry. It is illustrated in Figure 4-1.

Editing registry settings

To edit a registry setting you double-click the setting and enter one or more values.

The following registry settings are available on the System Settings tab:
- Sign Comport
- HTTP Server
- Data Alarms Schedule
- Data Alarm Time Out Minutes
- Auto Restart Data Ports
- Low Disk Space Threshold (MB)
- Time Maintenance Manager (Maintenance Service nightly routine) Runs
- Stop and Start SQL Server Once During Maintenance
- Enable MDR SMDR Buffering
- MiTAI Runtime Version

You click File=>Reload System Settings to refresh the values displayed on the System Settings tab.

Sign Comport
When you double-click Sign Comport Figure 4-2 appears. You configure the comports so the prairieFyre Service knows where to go to find data.

Figure 4-2 Select configuration type
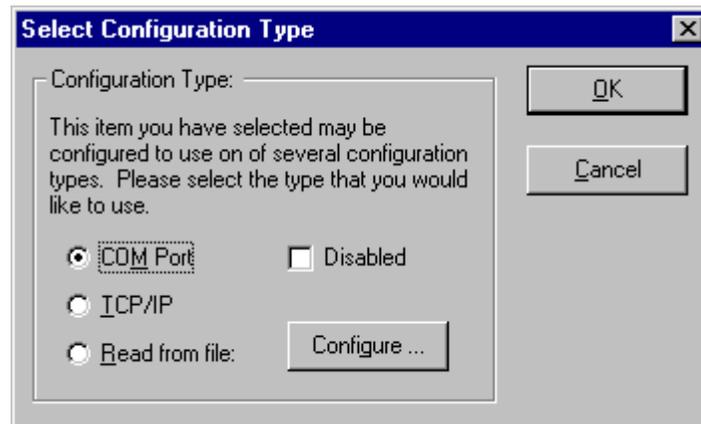
You configure the comport to use one of three configuration types: COM Port, TCP/IP, or Read from file.

HTTP Server
The HTTP Server setting specifies the server IP address used by the 6110 CCM Web program. You must select the This Server uses SSL (Secure Sockets Layer) check box if you have SSL installed on your Web site. SSL encrypts communications between the client and server.

Setting alarms

You set alarms in Management Console so the system will notify you if the prairieFyre Service is not receiving data or the server disk space is low.

Data Alarms Schedule

The Data Alarms Schedule setting specifies the system raise data alarms when it detects the prairieFyre Service is not receiving data. You can program alarms across individual days of the week.

Data Alarm Time Out Minutes

The Data Alarm Time Out Minutes setting specifies the number of minutes the system waits (when it detects the prairieFyre Service is not receiving data) before it raises an alarm.

Auto Restart Data Ports

The Auto Restart Data Ports setting attempts to reopen the data ports when it detects the prairieFyre Service is not receiving data. Provided alarms are set, the system closes the comports for 30 seconds and then attempts to reopen them.

Low Disk Space Threshold

The Low Disk Space Threshold setting detects if the disk space is low on the disk housing the text files and SQL database. If the disk space is less than the threshold specified, the system sets off an alarm in the SuperAdvisor program.

When the system raises an alarm, the prairieFyre Network Monitor icon on your desktop flashes. Right-click it and click Summary of Alarm Status to view any alarms.

On the 6110 CCM Server, you can click Start=>Programs=>Administrative Tools=>Event Viewer to view additional information on the error.

Figure 4-3 illustrates the time out error details provided by the Event Viewer.

Figure 4-3 Event details

Time Maintenance Manager Runs

The Time Maintenance Manger Runs setting specifies the time the nightly maintenance service runs.

Stop and Start SQL Server Once During Maintenance

The Stop and Start SQL Server Once During Maintenance setting instructs the maintenance manager to stop and restart the SQL server during the nightly maintenance routine. This ensures the SQL database makes optimal use of memory.

Enable MDR SMDR Buffering

The Enable MDR SMDR Buffering setting stores SMDR telephone system data in a separate file. The MDR application uses this data to generate call costing reports.

MiTAI Runtime Version

The MiTAI Runtime Version setting specifies the version of MiTAI software you are using. You configure this setting if you have installed the 6110 CCM 6115 CCM add-on application.

Database tab

The Database tab is not available on the Management Console Node application.

You use the Database tab to configure your database if you have the SX-2000, or to view 6110 CCM Database objects and perform diagnostics. All objects are read-only. The objects are comprised of server logins (user groups for cross-domain resource sharing), tables, stored procedures, and database users. Figure 4-4 illustrates the Database tab.

Figure 4-4 Management Console Enterprise - Database tab
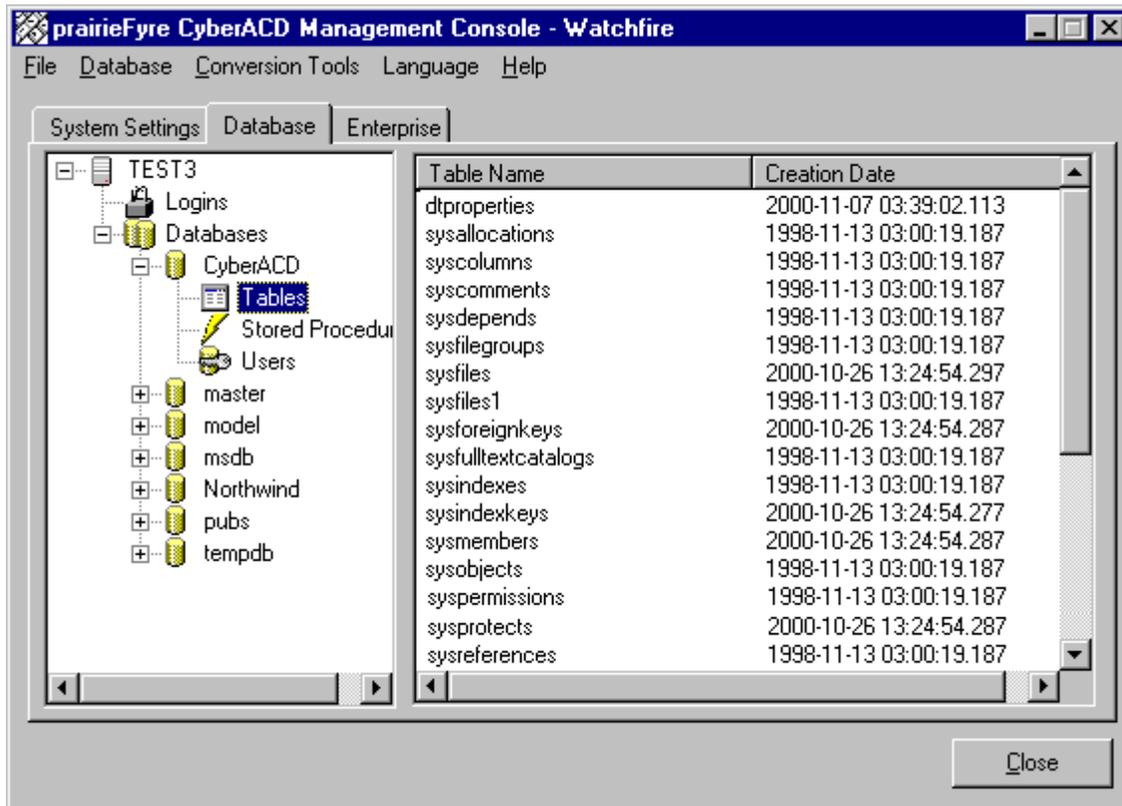
You click Database=>Load SQL Databases to update the settings displayed on the Database tab.

Quick Configuration Tool for the SX-2000

If you have the SX-2000, then you can use the Quick Configuration Tool to configure your database. If you have the SX-200 or the SX-200 real-time, you must configure the database with YourSite. See "There are three ways to configure the 6110 CCM system. The first time you configure your database" on page 58.

The Agent Group Assignment Form and the Path Assignment Form are found on the PBX. First you must convert these files to .txt files. Then you use the Quick Configuration tool to input the information from these forms into Mitel Networks 6110 Contact Center Management with the Management Console.

Converting Mitel forms to a .txt file:

1. Click **Start=>Programs=>Accessories=>Hyperterminal=>HyperTerminal** or
   if you have Windows 2000,
   click **Start=>Programs=>Accessories=>Communications =>HyperTerminal**.

The New Connection - HyperTerminal window and Connection Description window appear.

2. On the **Connection Description** window, under **Name**, type the name of this
   connection (e.g. Connection1).
3. Click **OK**.

The Connect To window appears.

4. After **Connect using**, select the comport (e.g. COM1).
5. Click **OK**.

The COM1 Properties window appears.

6. Verify that the bits per second, data bits, parity, stop bits, and flow control are
   correct.
7. Click **OK**.

The Connection1 HyperTerminal window appears.

8. Click **Transfer=>Capture Text**.

The Capture Text window appears.

9. Click **Browse** and select the destination of the text file.
10. Click **Start**.

The Mitel forms information will appear in the Connection1 HyperTerminal window.

11. When all the Mitel forms information is converted to text, close the Connection1
    HyperTerminal window.

On the PBX, you now send all valid Agent Group Assignments and Path Assignment to the file. Save the
text file and proceed to *Configuring Agents, Agent Groups, and/or Queues*.

Configuring Agents, Agent Groups, and/or Queues:

1. Click **Start=>Programs=>prairieFyre software Inc.=>prairieFyre Management Console**.
2. Click **Database=>Import Configuration from Mitel Assignment Forms**.

The Interpret Mitel Assignment Forms window appears.

3. After **Select a File**, click **Browse**.
4. Select the data file created by the SX-2000 telephone switch.
5. Click **OK**.

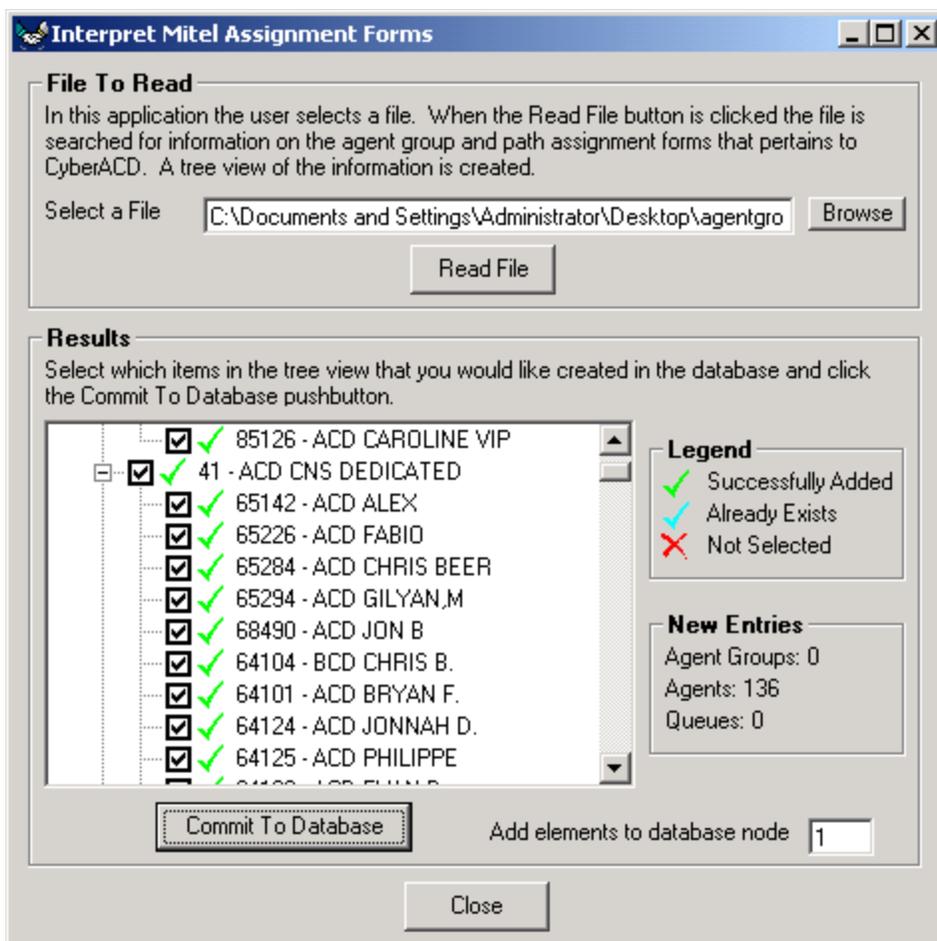The Interpret Mitel Assignment Forms window reappears.

6. Click **Read File**.

Under Results, the information retrieved from the forms is displayed.

7. Select **Agents**, **Agent Groups**, and/or **Queues**.
8. Click **Commit to Database**.
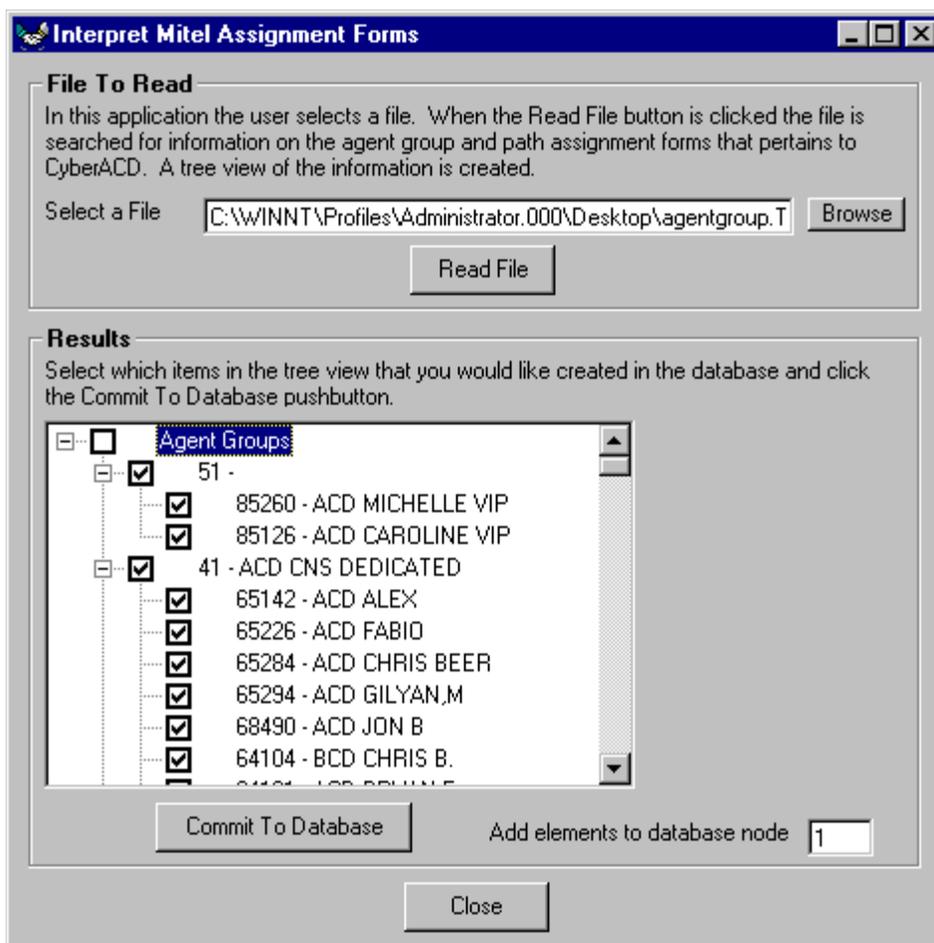
A legend appears that indicates if the data has been successfully added, if it already exists, or if it was not selected.

9. Click **Close**.

Backing up the YourSite Database

You click Database=>Back Up YourSite Configuration to back up the current programming in the YourSite Database to a file in your Temp directory. The naming syntax is *MMDDYYYY.sql*. If required, you can later recover the YourSite Database data exclusively, rather than restoring the entire SQL database.
This backup offers protection in case you program the database incorrectly, or a careless user reconfigures it. prairieFyre recommends you perform this backup weekly, in addition to regular database maintenance.

Restoring the YourSite Database

You click Database=>Restore YourSite Configuration to restore the YourSite Database to the time of your last database backup.

NOTE: Restoring the YourSite Database deletes all current database table entries and replaces them with the entries defined at the time of your last database backup. Any changes made to the database in the interim are lost. Backing up the YourSite Database also deletes all report permissions defined for users in the Report Permissions component of YourSite.

Backing up the 6110 CCM Database

The 6110 CCM Database stores the YourSite Database, the telephone system call record data, and the stored procedures used to store and retrieve historical data.

You click Database=>Back Up 6110 CCM Database to back up the current 6110 CCM Database configuration to a file in your Temp directory. The naming syntax is *PFDB_BackupMMDDYYYY.bak*. If required, you can later recover the 6110 CCM Database information exclusively, rather than restoring the entire SQL database.

You use this backup for disaster recovery. prairieFyre recommends you perform this backup weekly, in addition to regular database maintenance.

Restoring the 6110 CCM Database

Clicking Database=>Restore 6110 CCM Database restores the database to the time of your last database backup.

NOTE: Call prairieFyre *before* you restore the 6110 CCM Database! Restoring the 6110 CCM Database deletes the *entire* 6110 CCM Database, which is the core of the 6110 CCM program. After you restore the database you need to take further steps to re-enter the telephone system data in the database.

Enterprise tab

You use the Enterprise tab to change settings in the registry and to configure your nodes for multi-site monitoring and reporting. It is illustrated in Figure 4-9.

Local and Remote Nodes

A node is a data collection point for a single telephone system. Local nodes reside in call centers that have 6110 CCM Server software installed. Remote nodes reside in call centers that have 6110 CCM Enterprise Node (CEN) software installed on computer running NT Workstation or Windows 2000 Professional.

Figure 4-5 Management Console Enterprise - Enterprise tab
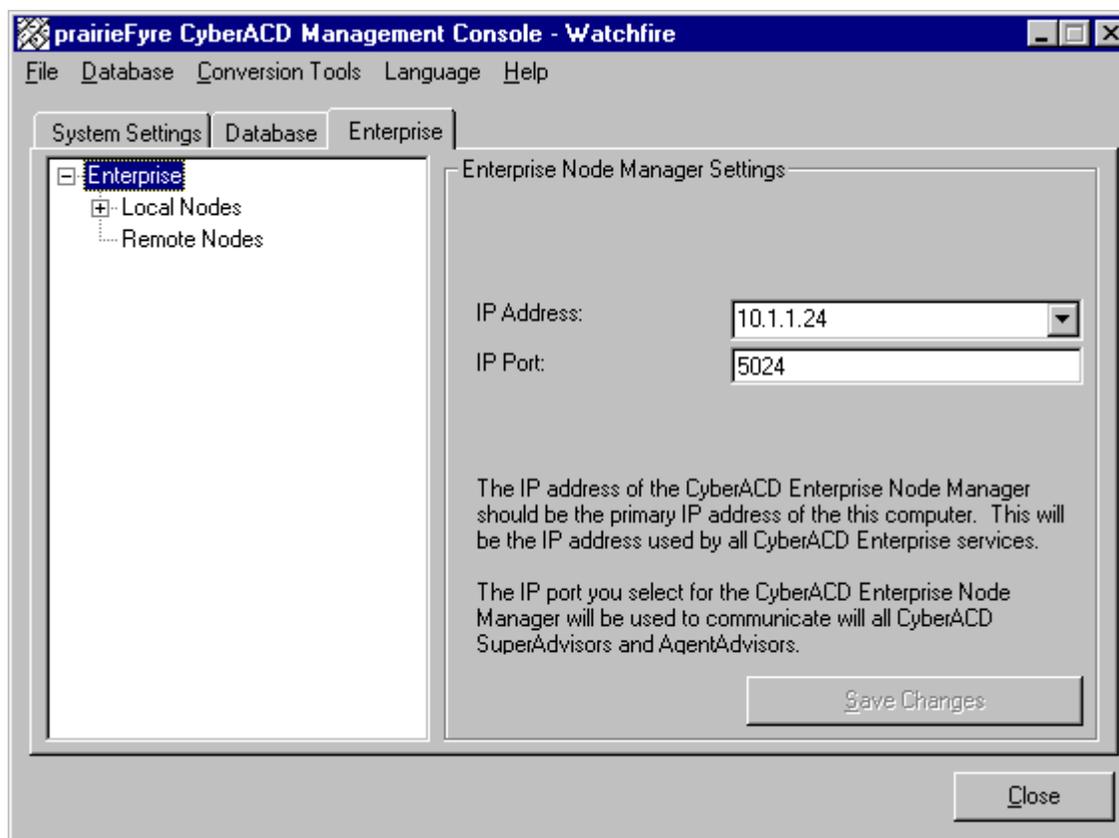
When you click Enterprise, the following 6110 CCM Server settings appear.

IP Address

The IP Address box specifies the IP address for the 6110 CCM Server Web application.

IP Port

The IP Port box specifies the port number over which the 6110 CCM Server communicates all with real-time clients.

When you expand the Enterprise tree in the left pane, the settings illustrated in Figure 4-10 appear.

Figure 4-6 Enterprise tab
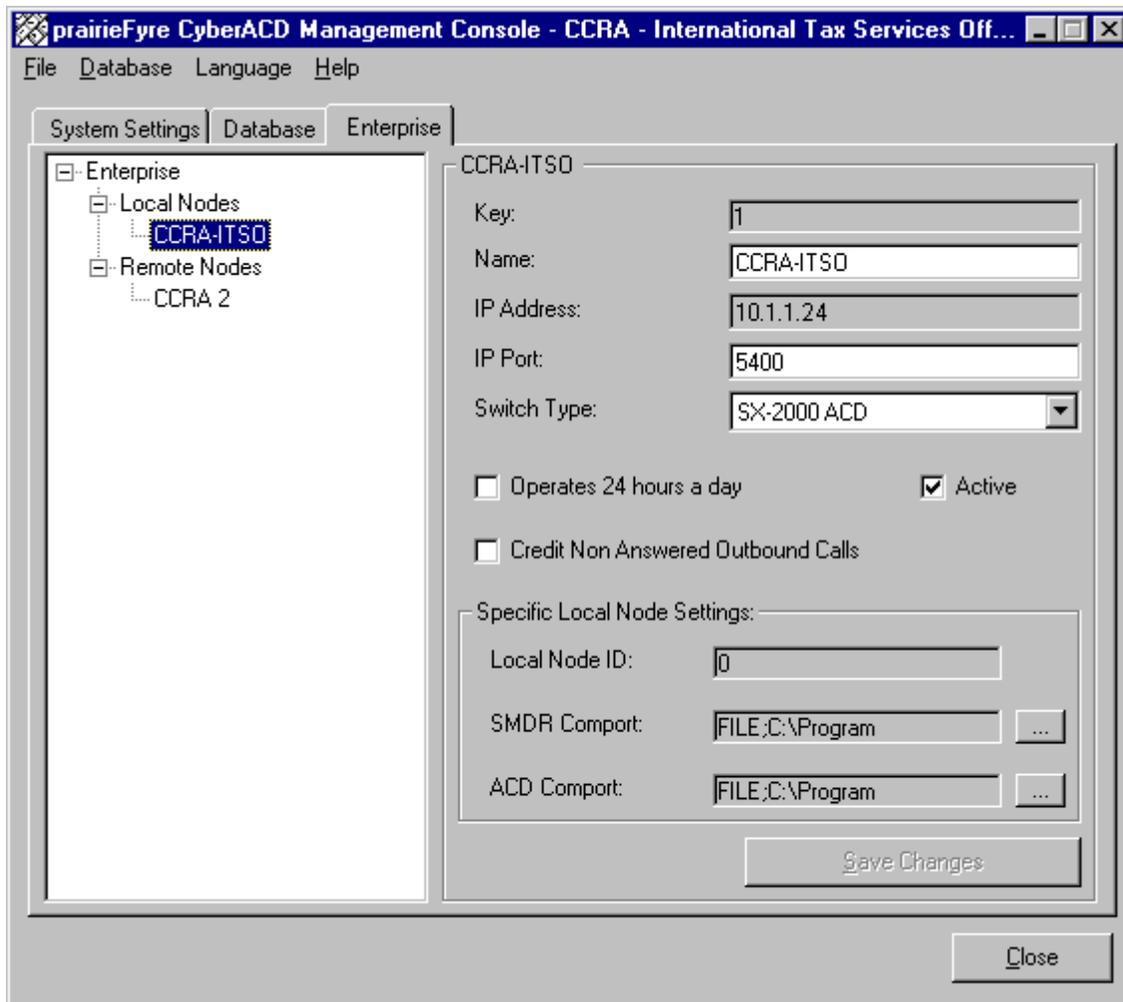
IP Address

The IP Address box specifies the IP address of the local computer where data collection occurs.

IP Port

The IP Port box specifies the port number over which the 6110 CCM Server service communicates with local data collection mechanisms. For remote nodes, both parties must use enter the same port number in order for communication to be successful.

Switch Type

The Switch Type setting specifies the type of telephone system used at the node.

Operates 24 hours a day

The Operates 24 hours a day option ensures proper reporting for call centers that operate over the midnight hour.

Credit Non Answered Outbound Calls

The Credit Non Answered Outbound Calls option includes non-answered outbound calls in the data collected for reporting.

SMDR Comport

The SMDR Comport setting specifies the SMDR comport setting for the local telephone system.

ACD Comport

The ACD Comport setting specifies the ACD comport setting for the local telephone system.

6110 CCM Enterprise Node

6110 CCM Enterprise Node (CEN) software provides multi-site call center capabilities with a single server configuration. It provides centralized reporting for geographically dispersed call centers. To learn how to install CEN software and configure local and remote nodes, see *Chapter 11 6110 CCM Enterprise Node*.

Chapter 5 YourSite
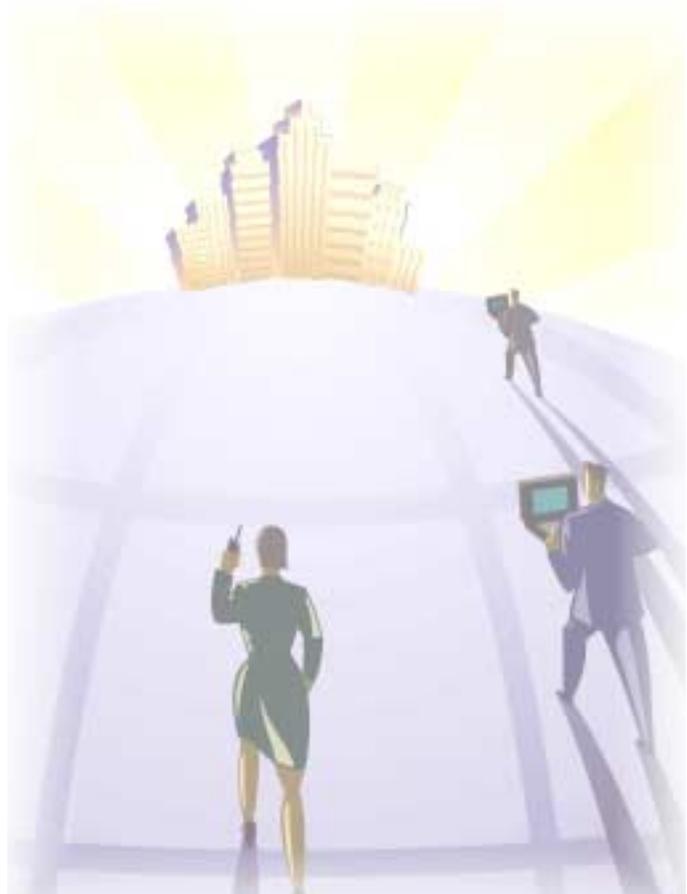
Program your call center database from anywhere, at any time with YourSite.

YourSite

The YourSite application consists of the configuration and the security for 6110 CCM.

There are three ways to configure the 6110 CCM system. The first time you configure your database
- if you have the SX-2000, you use the Quick Configuration Tool. See "Quick Configuration Tool for the SX-2000" on page 48.
- if you have Mitel Networks 6115 Interactive Contact Center, you use the Automatic Synchronization Tool. See "Automatic Synchronization with 6115 ICC" on page 85.
- if you have the SX-200 with real-time, or the SX-200, you must configure your system manually.

Starting with version 2.8, 6110 CCM has new security features. The security can now be as basic or as flexible (advanced) as you need it. You must assign each user a security role. With these security roles, you can restrict what you want users to have access to. By default the security role is Not Restricted (to the Web site).

Configuration

Call centers that use 6110 CCM (Contact Center Management) have two main databases: the telephone system database and the prairieFyre YourSite Database. In the Configuration module, you program the YourSite Database to mirror the lines, routing and timing options, and agent positions in use on the telephone system. For example, if you enter Deborah Black as Agent ID 5000 in the telephone system database then you must enter Deborah Black as Agent ID 5000 in the YourSite Database.

For reporting purposes, the trunk, extension, agent, agent group, queue, dialable, and account code numbers you program in the YourSite Configuration Database must be identical to those of the telephone system.

Configuration main screen

When you click YourSite=>Configuration Figure 5-1 appears featuring the Employee tab.

Figure 5-1 Configuration main screen

Determining which call center devices to configure

Before you program devices and device groups in the YourSite Database you must consider your needs.

Reporting

- Will you report on all devices and device groups, or only on agents, agent groups, queues, and queue groups?

Real-time

- SuperAdvisor and AgentAdvisor display statistics on agents, agent groups, queues, queue groups, employees, and employee groups. You must configure these devices in the YourSite Database and associate them to groups in order to view data on them in real-time.

Online chat

- Agents log on to the chat module using employee IDs: you must configure them in the database.

NOTE: Mitel Networks 6110 CCM permissions are based on database teams and groups. If you have the SX-2000, you can use the Quick Configuration Tool (see the Management Console). If you have the SX-200 with real-time or the SX-200, you must programming the YourSite Database in the traditional way. You must create agent IDs and associate the agents to employees and to agent groups. Then you associate the agent groups to the queues for which they answer calls. Associate the employees to employee groups and the queues to queue groups and then create these associations in the database in order to view real-time data and report on these devices. If you are reporting on extensions, trunks, and employees, you must add these devices to the YourSite Database and associate the extensions to extension groups, trunks to trunk groups, and DNIS numbers to DNIS groups.

NOTE: When you upgrade from a Toolbox version 5.0 system to a Mitel Networks 6110 CCM system, 6110 CCM creates an employee ID for each agent ID programmed in the PBX. During the upgrade, if an agent has three agent IDs, 6110 CCM creates a unique employee ID for *each* of the three agent IDs. This is a problem. Agents must have only *one* employee ID. Following the upgrade, you must go into the YourSite Database and re-associate the three agent IDs (for the agent) to *one* employee number.

The Configuration module is comprised of the following tabs: Agent, Agent Group, Team, Queue, Queue Group, Extension, Extension Group, Trunk, Trunk Group, Account Code, Automatic Number Identification (ANI), Dialed Number Identification Service (DNIS), DNIS Group, Employee, Employee Group, and Make Busy Reason Codes. Each of these tabs contains one or more grids with records. A record is a set of entries for a particular element.

Agent tab

The grid in Figure 5-1 displays the employee and agent IDs in YourSite. You define agent names and IDs by right-clicking the grid and clicking Add. You can double-click grid headers and sort the data by ascending or descending order.

Node

The Node field lists the call center site to which the agent is currently associated.

Employee ID

The employee ID field lists employee reporting numbers for employees defined in YourSite. You add employee reporting numbers on the Employee tab.

Reporting

The agent Reporting field specifies agent IDs/reporting numbers for agents defined in YourSite.

You assign multiple agent IDs to agents who are cross-trained to answer calls for different departments and log in and out of various queues. For example, agent Carol Jones answers calls for English, French, and Spanish queues. In the YourSite Database you assign agent Jones three agent IDs (one for each queue for which she answers calls) and an employee ID.

Name

The Name field lists the names of agents defined in YourSite.

Last Modified

The Last Modified field specifies the date that database information on the device was last edited.

Add

The Add command adds new agents to YourSite.

Edit

The Edit command edits reporting numbers, names, and nodes for agents.

Delete

The Delete command deletes one or more agents from the Agents tab and from all corresponding database groups.

Show Deleted

The Show Deleted command displays devices you have deleted from YourSite.

Find

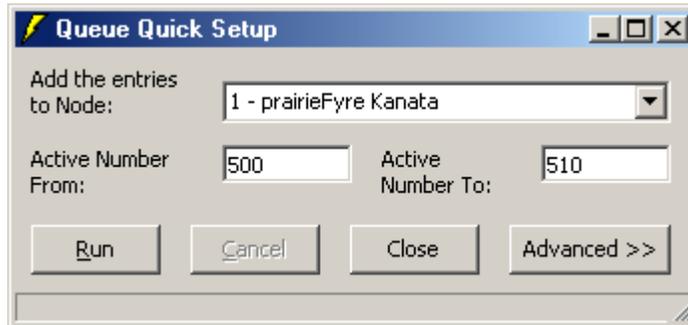The Find command locates a reporting number, name, or row number.

Print

The Print command prints the grid currently displayed.

Quick Setup

The Quick Setup command adds a series of agents to YourSite. It is illustrated in Figure 5-2.

Figure 5-2 Quick Setup

NOTE: The YourSite Database programming must mirror that of the telephone system.

The Advanced option specifies advanced numbering features illustrated in Figure 5-3.

On the General tab, you can specify prefixes and postfixes for device names and dialable numbers, for a range of devices.

On the Reporting tab, you can specify prefixes and postfixes for reporting numbers. You can use algorithms (+, -, *, /) to specify ranges of device numbers. For example, you can enter an active range of agent reporting numbers from 700 to 708 and an operator number of + 2. The resulting agent reporting numbers programmed are 702, 704, 706, 708, and 710.

On the Metrics tab, you can specify service level time, short abandon time, and short talk time values for a range of queues or agent groups.

On the Answer By tab, you can specify the answering priority for up to four agent groups for a range of queues.

Example 1

You want to add a series of queues to the database with queue dialable numbers from 7900 to 7930 and queue reporting numbers from 900 to 930.

To add the series of queues to YourSite:

1. Click **Quick Setup**.
2. Click **Advanced**.

The dialog box illustrated in Figure 5-3 appears.

Figure 5-3 Quick Setup advanced features

3. In the **Add the Entries to Node** box, select a node.
4. In the **Active Number From** and **Active Number To** boxes, type 7900 and 7930 respectively.
5. Select the lower **Create Reporting Number from** check box.
6. Type **P** for the prefix, select the minus sign [**-**] for the active number, and type **7000** for the operator number.
7. Click **Run** and click **Close**.

Notify Realtime Clients

The Notify Realtime Clients command updates the SuperAdvisor, AgentAdvisor, Reporter, and Scheduled Reports applications with changes you make to the database.

Agents

The Agents counter displays the number of agents programmed in YourSite. If you click the ACD Queue, Extension, or Trunk tab, the counter displays the number of ACD queues, extensions, or trunks programmed in YourSite.

Adding elements to YourSite

To add elements, such as agents, extensions, and account codes to YourSite:

1. Click the **Agent**, **Extension**, **Trunk**, **Account Code**, **ANI**, or **DNIS** tab.
2. Right-click the grid and click **Add**.
3. Add one or more elements to the database, being sure to select the call center site (node) to which the element belongs.
4. Click **Add All**.
5. Click **Close** to save changes to the database.

To add a series of elements to YourSite:

1. Click the **Agent**, **Extension**, **Trunk**, **Account Code**, **ANI**, or **DNIS** tab.
2. Right-click the grid and click **Quick Setup**.
3. In the **Add the Entries to Node** box, select the call center site to which the   elements belong.
4. In the **Active Number From** and **Active Number To** boxes, enter a range of elements/device numbers.
5. Click **Run** and click **Close**.

NOTE:
- An employee is a physical person being tracked in your call center. Employees can have multiple agent IDs. The number of employees you program in the YourSite Database must be consistent with your software licence. If you have more employees programmed than your licence permits, "[licence Is In Violation of Max Agents Allowed]" will appear in place of your company name on the Mitel Networks 6110 CCM user interface (UI) and on any reports you generate.

- For the SX-200 and the SX-200 with real-time, the dialable number and queue number you define (in the YourSite Database) for a particular queue must be identical. If you use 5300 as the dialable number for the primary customer service queue, you must use P5300 for the corresponding queue number. You define queue numbers on the Queue tab and dialable numbers on the Extension tab.

- If you attempt to add an element to YourSite that is already in the database the system notifies you the element is already present. When you add a series of elements to YourSite, such as Extensions 5001 to 5005, if the system detects you have already added Extension 5002, then it will not add Extension 5002 or any subsequent extensions in the series (that is, Extensions 5003 to 5005) to the database.

Editing YourSite elements

To edit YourSite elements:

1. Click the **Agent**, **Extension**, **Trunk**, **Account Code**, **ANI**, or **DNIS** tab.
2. Select a device.
3. Right-click the grid and click **Edit**.
4. Click a grid cell and make the required changes.
5. Click **Update** and click **Close**.

Deleting YourSite elements

To delete YourSite elements:

1. Click the **Agent**, **Extension**, **Trunk**, **Account Code**, **ANI**, or **DNIS** tab.
2. Right-click the grid and click **Delete**.
3. Select one or more agents or account codes to delete and click **Clear All**.
4. Click **Remove** and click **Close**.

YourSite removes the element from the current table and from all corresponding database groups.

Agent Group tab

Figure 5-4 illustrates the Agent Group tab. The Agent Group tab displays agents who belong to the agent group currently selected. You define agent group numbers, group names, and service level time values on the Agent Group tab by right-clicking the grid and clicking Add. You associate agents to agent groups on the Agent Group tab. You can sort the information presented in grid fields by ascending or descending order by double-clicking grid headers.

Figure 5-4 Agent Group tab

The following functions are available on the Agent Group, Team, Queue, Queue Group, Extension Group, Trunk Group, DNIS, DNIS Group, Employee, Employee Group tabs, and the Make Busy Reason Codes.

Add

The Add command adds agent groups to YourSite.

Edit

The Edit command edits group names and service level time values for agent groups.

Delete

The Delete command deletes one or more agent groups.

Show Deleted

The Show Deleted command displays devices you have deleted from YourSite.

Find

The Find Command locates a reporting number, name, or row number.

Print

The Print command prints a list of all agents programmed in YourSite for the current agent group.

Print Members

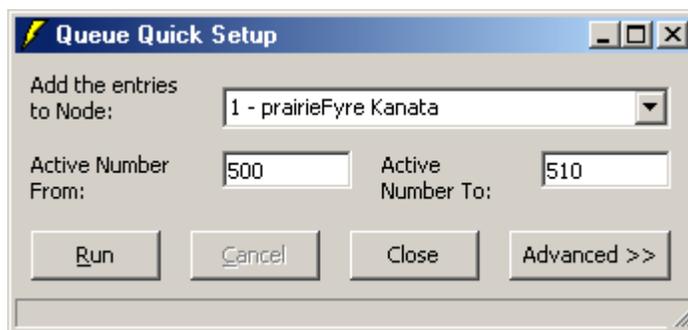The Print Members command prints a list of members who belong to the group currently selected.

Add as Member

The Add as Member command adds the device currently selected to the Members grid.

Quick Setup

The Quick Setup command adds a series of agents to YourSite. It is illustrated in Figure 5-5.

Figure 5-5 Quick Setup

NOTE: The YourSite Database programming must mirror that of the telephone system.

The Advanced option specifies advanced numbering features.

On the General tab, you can specify prefixes and postfixes for device names and dialable numbers, for a range of devices.

On the Reporting tab, you can specify prefixes and postfixes for reporting numbers. You can use algorithms (+, -, *, /) to specify ranges of device numbers. For example, you can enter an active range of agent reporting numbers from 700 to 708 and an operator number of + 2. The resulting agent reporting numbers programmed are 701, 702, 704, 706, and 708.

On the Metrics tab, you can specify service level time, short abandon time, and short talk time values for a range of queues or agent groups.

On the Answer By tab, you can specify the answering priority for up to four agent groups for a range of queues.

Example 1

You want to add a series of queues to the database with queue dialable numbers from 7900 to 7930 and queue reporting numbers from 900 to 930.
To add the series of queues to YourSite:

1. Click **Quick Setup**.
2. Click **Advanced**.

The dialog box illustrated in Figure 5-6 appears.

Figure 5-6 Quick Setup advanced features

Notify Realtime Clients

The Notify Realtime Clients command updates the SuperAdvisor, AgentAdvisor, Reporter, and Scheduled Reports applications with changes you make to the database.

Agent Groups

The Agent Groups counter displays the number of agent groups programmed in YourSite.

Available Members

The Available Members counter lists the number of agent available to become members of the agent group currently selected. The Available Members grid lists the agents you can add to the group.

Members

The Members counter lists the number of agents that belong to the agent group currently selected. The Members grid lists the agents that are members of the group.

Node

The Node field lists the call center site to which the agent group is currently associated.

Reporting

The Reporting field specifies reporting numbers for agent groups defined in YourSite.

Name

The Name field lists the names of agent groups defined in YourSite.

Last Modified

The Last Modified field specifies the date that database information on the device was last edited.

The following four fields appear on the Queue and Agent Group tabs only.

Dialable Number

The Dialable Number field specifies the number the caller dials to reach a device.

Adding groups to YourSite

When you assign numbers to groups in YourSite, use numerical characters only, such as *1* (for Extension Group 1). Do not insert symbols, such as a star [*] or pound sign [#], in the number.

To add groups, queues, or teams to YourSite:

1. Click the **Agent Group**, **Team, Queue**, **Queue Group**, **Extension Group**, **Trunk Group**, or **DNIS Group** tab.
2. Right-click the grid and click **Add**.
3. Add one or more groups, queues, or teams to the database, being sure to select the call center site (node) to which the group belongs.
4. Click **Add All** and click **Close**.

To add a series of groups, queues, or teams to YourSite:

1. Click the **Agent Group**, **Team, Queue**, **Queue Group**, **Extension Group**, **Trunk Group**, or **DNIS Group** tab.
2. Right-click the grid and click **Quick Setup**.
3. In the **Add the Entries to Node** box, select the call center site to which the groups belong.
4. In the **Active Number From** and **Active Number To** boxes, enter a range of group numbers.
5. Click **Run** and click **Close**.

NOTE: If you attempt to add a group to YourSite that is already in the database the system notifies you that the group is already present. When you add a series of groups to YourSite, such as Extension Groups 1 to 5, if the system detects you have already added Extension Group 3, then it will not add Extension Group 3 or any subsequent extensions in the series (that is, Extension Group 4 or 5) to the database.

Editing YourSite groups

To edit YourSite groups:

1. Click the **Agent Group**, **Team, Queue**, **Queue Group**, **Extension Group**, **Trunk Group** or **DNIS Group** tab.
2. Select a group, queue, or team.
3. Right-click the grid and click **Edit**.
4. Click a grid cell and make the required changes.
5. Click **Update**.
6. Click **Close**.

Deleting YourSite groups

To delete YourSite groups:

1. Click the **Agent Group**, **Team, Queue**, **Queue Group**, **Extension Group**, **Trunk Group**, or **DNIS Group** tab.
2. Right-click the grid and click **Delete**.
3. Select one or more groups to delete and click **Clear All**.
4. Click **Remove** and click **Close**.

Adding elements to YourSite groups

To add elements to YourSite groups:

1. Click the **Agent Group**, **Team, Queue**, **Queue Group**, **Extension Group**, **Trunk Group**, or **DNIS Group** tab.
2. Select a group, queue, or team.
3. In the **Available Members** grid, select an element (or select multiple elements by clicking an element, holding down the left mouse button, and dragging down the list) and click the right [**>>**] arrow button to add it to the **Members** grid.

Alternatively, you can select the Select All check box to add all elements to the Members grid.

The elements are added to the members database instantly.

Deleting elements from YourSite groups

To delete elements from YourSite groups:

1. Click the **Agent Group**, **Team, Queue**, **Queue Group**, **Extension Group**, **Trunk Group**, or **DNIS Group** tab.
2. Select a group, queue, or team.
3. In the **Members** grid, select an element (or select multiple elements by clicking an element, holding down the left mouse button, and dragging down the list) and click the left [**<<**] arrow button to add it to the **Available Members** grid.
   The elements are removed from the members database instantly.

Team tab

Figure 5-7 illustrates the Team tab. The Team tab displays the agent groups that belong to the team currently selected. The functions on the Team tab are the same as those presented in the section entitled *Agent Group tab*. When you build teams, you can run reports for several agent groups simultaneously. You define team numbers and names on the Team tab by right-clicking the grid and clicking Add.

Figure 5-7 Team tab

Queue tab

Figure 5-8 illustrates the Queue tab. The Queue tab displays the agent groups that belong to the queue currently selected. You define queue numbers, dialable numbers, queue names, short abandon time values, short talk time values, and service level time values for queues by right-clicking the grid and clicking Add.

Figure 5-8 Queue tab

NOTE: You must associate at least one agent group to a queue in order to produce reports on the queue.

Queues

The Queues counter lists the number of ACD queues programmed in YourSite.

AnsBy

In the Members grid, the AnsBy field specifies the answering priority of up to four agent groups.

To specify which agent groups have answering priority, and in what order:

1. Click the **Queue** tab.
2. In the **Agent Groups Available** table, click an agent group.
3. Click the right arrow [**>>**] to add the agent group to the first answered by position in the **Queue Members** table.
4. Repeat steps 1 to 3 to specify the answering priority for up to four agent groups.

This saves the answering priority to the database.

You define the following queue parameters by right-clicking the grid and clicking Add.

Queue Number

Users often get confused when programming queue numbers. prairieFyre refers to the telephone system path reporting number as the queue reporting number. When you program the telephone system with a path number such as six, you enter this number in the YourSite Database as queue reporting number P006 (for the SX-2000) or P0006 (for the SX-200 and the SX-200 with real-time).

ACD queue numbers are four digits in length: P001 (for the SX-2000), or five or six digits in length: P0001 or P00001 (for the SX-200 and the SX-200 with real-time).

For the SX-2000, the database expands any dialable number that is less than three digits. For example, if you enter a queue number comprised of fewer than three numeric characters, such as P1, YourSite adds two zeros preceding the 1, as does your telephone system. If you enter a queue number of P30, the database expands the number to P030. For the SX-200 and SX-200 with real-time, the database expands any dialable number that is less than four digits. For example, if you enter a queue number of P30, the database expands the number to P0030.

NOTE: For the SX-200 and the SX-200 with real-time, the dialable number and queue number you define (in the YourSite Database) for a particular queue must be identical. If you use 5300 as the dialable number for the primary customer service queue, you must use P5300 for the corresponding queue number. You define queue numbers on the Queue tab and dialable numbers on the Queue tab.

The following four fields appear on the Queue and Agent Group tabs.

Dialable Number

The Dialable Number field specifies the number the caller dials to reach a device.

Service Level

The Service Level field specifies the service level time for the queue. You enter the value in seconds.

NOTE: The 6110 CCM reporting and real-time applications use the service level time in calculating the service level percentage.

Service Level

The *service level* is the total number of calls which are answered, abandoned, and interflowed *before a defined threshold time (Service Level Time)*, compared to the total number of calls answered, abandoned, and interflowed. It's the average length of time a caller who has obtained a trunk waits for an available agent. The service level = (Calls Answered + Long Calls Abandoned + Long Interflow) within the Service Level Time ÷ (Calls Answered + Long Calls Abandoned + Long Interflow).

Service Level Percent

The *service level percent* is the proportion of calls, expressed as a percentage, which are answered, abandoned, and interflowed within a defined threshold time compared to the total number of calls answered or abandoned (after the short abandon time).

Service Level Time

The *service level time* is the threshold time used in calculating the service level percentage, such as 90 percent of calls answered in 20 seconds. The service level percentage and service level time are parameters you define as your service objective.

Calls Abandoned Parameter

The Calls Abandoned Parameter specifies the value which determines whether a call is a Short Abandoned Call or a Long Abandoned Call. If the abandon time is less than the Call Abandoned Parameter, then it is a Short Abandoned Call. If the abandon time is more than the Call Abandoned Parameter, then it is a Long Abandoned Call.

You assign the Calls Abandoned Parameter (called the Queue Short Abandon Time) values to ACD queues in the YourSite Database.

Callers can abandon after they reach a trunk (before they reach the ACD queue) or while they are in queue waiting for an available agent (either before or after the short abandon time you specify).

Properties

With the *properties* field, under Business Hours, you can enter your business hours of operation so the system will put you in and out of Do Not Disturb automatically. Under Spectrum Values, you can set the spectrum threshold that the spectrum reports are based on. The spectrum values are in seconds.

Queue Group tab

Figure 5-9 illustrates the Queue Group tab. The Queue Group tab displays queues that belong to the queue group currently selected. The functions on the Queue Group tab are the same as those presented in the section entitled *Agent Group tab*. You define queue group numbers and names on the Queue Group tab by right-clicking the grid and clicking Add.

Figure 5-9 Queue Group tab

Extension tab

Figure 5-10 illustrates the Extension tab. The functions on the Extension tab are the same as those presented in the section entitled *Agent tab*. You define extension numbers and names on the Extension tab by right-clicking the grid and clicking Add.

Figure 5-10 Extension tab

Node	Reporting	Name	Last Modified
FileServer2	100	Rob	10/19/2000 3:36:04 PM
FileServer2	101	Rick	1/10/2002 2:37:15 PM
FileServer2	102	Habib	1/10/2002 2:37:15 PM
FileServer2	103	Erika	10/19/2000 3:36:04 PM
FileServer2	104	Kelley	10/19/2000 3:36:04 PM
FileServer2	105	Extension 105	10/19/2000 3:36:04 PM
FileServer2	106	Extension 106	10/19/2000 3:36:05 PM
FileServer2	107	Chris	10/19/2000 3:36:05 PM
FileServer2	108	Clarke	10/19/2000 3:36:05 PM
FileServer2	112	Kevin	10/19/2000 3:37:35 PM
FileServer2	115	Extension 115	1/10/2002 2:38:41 PM

Print   Quick Setup   Notify Realtime Clients   11   1/11

Employee | Employee Group | Agent | Agent Group | Team | Queue | Queue Group | Extension | Extension Group
Trunk | Trunk Group | Account Code | ANI | DNIS | DNIS Group | Make Busy Reason Codes

Extension Group tab

Figure 5-11 illustrates the Extension Group tab. The functions on the Extension Group tab are the same as those presented in the section entitled *Agent Group tab*. You define extension group numbers and names on the Extension Group tab by right-clicking the grid and clicking Add.

Figure 5-11 Extension Group tab

Trunk tab

Figure 5-12 illustrates the Trunk tab. The functions on the Trunk tab are the same as those presented in the section entitled *Agent tab*. You define trunk numbers and names on the Trunk tab by right-clicking the grid and clicking Add.

Figure 5-12 Trunk tab

Node	Reporting	Name	Last Modified
FileServer2	1	Trunk 1	1/10/2002 2:31:42 PM
FileServer2	2	Trunk 2	10/19/2000 3:37:48 PM
FileServer2	3	Trunk 3	10/19/2000 3:37:48 PM
FileServer2	4	Trunk 4	10/19/2000 3:37:48 PM
FileServer2	5	Trunk 5	1/10/2002 2:31:42 PM

Print   Quick Setup   Notify Realtime Clients   5   1/5

Trunk | Trunk Group | Account Code | ANI | DNIS | DNIS Group | Make Busy Reason Codes
Employee | Employee Group | Agent | Agent Group | Team | Queue | Queue Group | Extension | Extension Group

Trunk Group tab

Figure 5-13 illustrates the Trunk Group tab. The functions on the Trunk Group tab are the same as those presented in the section entitled *Agent Group tab*. You define trunk group numbers and names on the Trunk Group tab by right-clicking the grid and clicking Add.

Figure 5-13 Trunk Group tab

Account Code tab

Figure 5-14 illustrates the Account Code tab. The functions on the Account Code tab are the same as those presented in the section entitled *Agent tab*. You define account code numbers and names on the Account Code tab by right-clicking the grid and clicking Add.

Figure 5-14 Account Code tab

You can register account codes in YourSite for individual departments, projects, and services and generate reports. For example, an agent who receives calls for three catalog companies enters account code 1 for calls to company X, account code 2 for calls to company Y, and account code 3 for calls to company Z. If you register these catalog companies in YourSite, the 6110 system generates reports on the number, origin, and handling of calls to the three companies.

ANI tab

Figure 5-15 illustrates the ANI tab. The functions on the ANI tab are the same as those presented in the section entitled *Agent tab*. The ANI tab provides area codes used to produce reports on the number of calls originating from various geographical regions. You define area codes and corresponding regions on the ANI tab by right-clicking the grid and clicking Add.

Figure 5-15 ANI tab

DNIS tab

Figure 5-16 illustrates the DNIS tab. The functions on the DNIS tab are the same as those presented in the section entitled *Agent tab*.

Dialed Number Identification Service (DNIS) is a feature of toll-free lines that identifies the telephone number the caller dials. This assists agents who answer calls for more than one business or product line.

Each business or product line has its own toll-free number. When a caller dials a toll-free number, the telephone system forwards information to the agent allowing the agent to identify who the caller dialed. For example, a caller dials a tool-free number for a cruise line. The telephone system sends a script to the agent along with the call. The agent then knows to answer "Good morning. Thank you for calling Southern Cruises," instead of the name of another cruise line serviced by the center.

Figure 5-16 DNIS tab

DNIS Group tab

Figure 5-17 illustrates the DNIS Group tab. The functions on the DNIS Group tab are the same as those presented in the section entitled *Agent Group tab*.

Figure 5-17 DNIS Group tab

Employee tab

Figure 5-18 illustrates the Employee tab. On the Employee tab, you must enter an employee ID for each call center agent and associate the employee ID to the agent ID. You enter employee names and IDs by right-clicking the grid and clicking Add.

The agent ID and employee ID for an agent can be identical, or different. The choice is yours. It is important you do not assign the same employee ID to two agents; agents must have unique employee IDs.

Figure 5-18 Employee tab

NOTE: An employee is a physical person being tracked in your call center. Employees can have multiple agent IDs. The number of employees you program in the YourSite Database must be consistent with your software licence. If you have more employees programmed than your licence permits, "[licence Is In Violation of Max Agents Allowed]" will appear in place of your company name on the 6110 CCM user interface (UI) and on any reports you generate.

Employee Group tab

Figure 5-19 illustrates the Employee Group tab. The functions on the Employee Group tab are the same as those presented in the section entitled *Agent Group tab*. You enter employee group numbers and names on the Employee Group tab by right-clicking the grid and clicking Add Group.

Figure 5-19 Employee Group tab

Make Busy Reason Codes tab

Figure 5-20 illustrates the Employee Group tab. The functions on the Make Busy Reason Codes tab are the same as those presented in the section entitled *Agent Group tab*. You enter Make Busy Reason Codes on the by right-clicking the grid and clicking Add.

Figure 5-20 Make Busy Reason Codes tab

Automatic Synchronization with 6115 ICC

Automatic Synchronization is only available if you have Mitel Networks 6115 Interactive Contact Center. Automatic Synchronization reads the PBX Agent ID/Names, Agent groups/Names, and Paths/Names (only if you have DNIS*), then it dynamically updates the YourSite database.

*If you do not have DNIS, you can enter the Path Dialable and Reporting numbers, and then the Paths/Names will be automatically synchronized.

NOTE: Ensure you have licences for each employee before you begin. If you have more employees than you have licences for, the Automatic Synchronization will not add employees to the database. You will have to add the employees and then associate them to the agents.

To configure your database for the first time, you must

1. Set the MiTAI node.
2. Enter the Queue dialable and reporting numbers, and enable Interactive in the database.
3. Wait approximately five minutes for Automatic Synchronization.
4. Refresh the screen.
5. Set the re-synchronization time.

Your database will be updated.

If you have previously configured your database and just want to update your database daily, you must

1. Set the re-synchronization time.

The effects of Automatic Synchronization

Employee IDs/Agent IDs

The Employee name and ID (Identification number) will now be the same as the Agent name and ID.

Reporting numbers/Dialable numbers

Reporting numbers that are known to 6110 CCM will remain unchanged.

Reporting numbers that are unknown to 6110 CCM will appear in the following format: MDialable Number (M1600). For example, M1600 is the reporting number for the agent group with the dialable number 1600.

New Queues

As new queues are entered into the switch, MiTAI will automatically update the database to include them.

Changing Device names

You can change the name of any device and Automatic Synchronization will not attempt to overwrite the name. That means that a single agent might be referred to as Agent1 on the PBX and referred to as Kevin in 6110 CCM.

Setting the MiTAI Node

1. Click **Start=>Programs=>Mitel Networks=>Management Console**.
2. Click **Enterprise**.
3. Expand the **Local Nodes** and select the MiTAI node. (For example, select Toronto.)
4. After **Switch Type**, select the MiTAI switch.
5. Type the **Node**, **Name**, **IP Address**, and **IP Port**.
6. Click **Save Changes**.

Figure 5-21 Management Console window

Entering the Queue dialable and reporting numbers

1. Click **YourSite=>Configuration**.
2. Click the **Queue** tab.
3. Select a queue.
   The Queue window appears. See Figure 5-22.

Figure 5-22 The Queue window

4. Under **Dialable**, right-click and select **Add**.
    The Add Queue window appears. See Figure 5-23.
5. Under **Dialable**, type the dialable number.
6. Under **Reporting**, type the reporting number.
7. Under **Name**, type the name.
8. Under **Service**, type the service.
9. Under **Short Abd**, type the duration for short abandon.
10. Under **Interactive**, select **Enabled**.
11. Click **Insert**.
12. Repeat steps 5-7 until you have typed all dialable and reporting numbers, and enabled Interactive for
    the queue, then click **Add All**.

Figure 5-23 Add Queue window
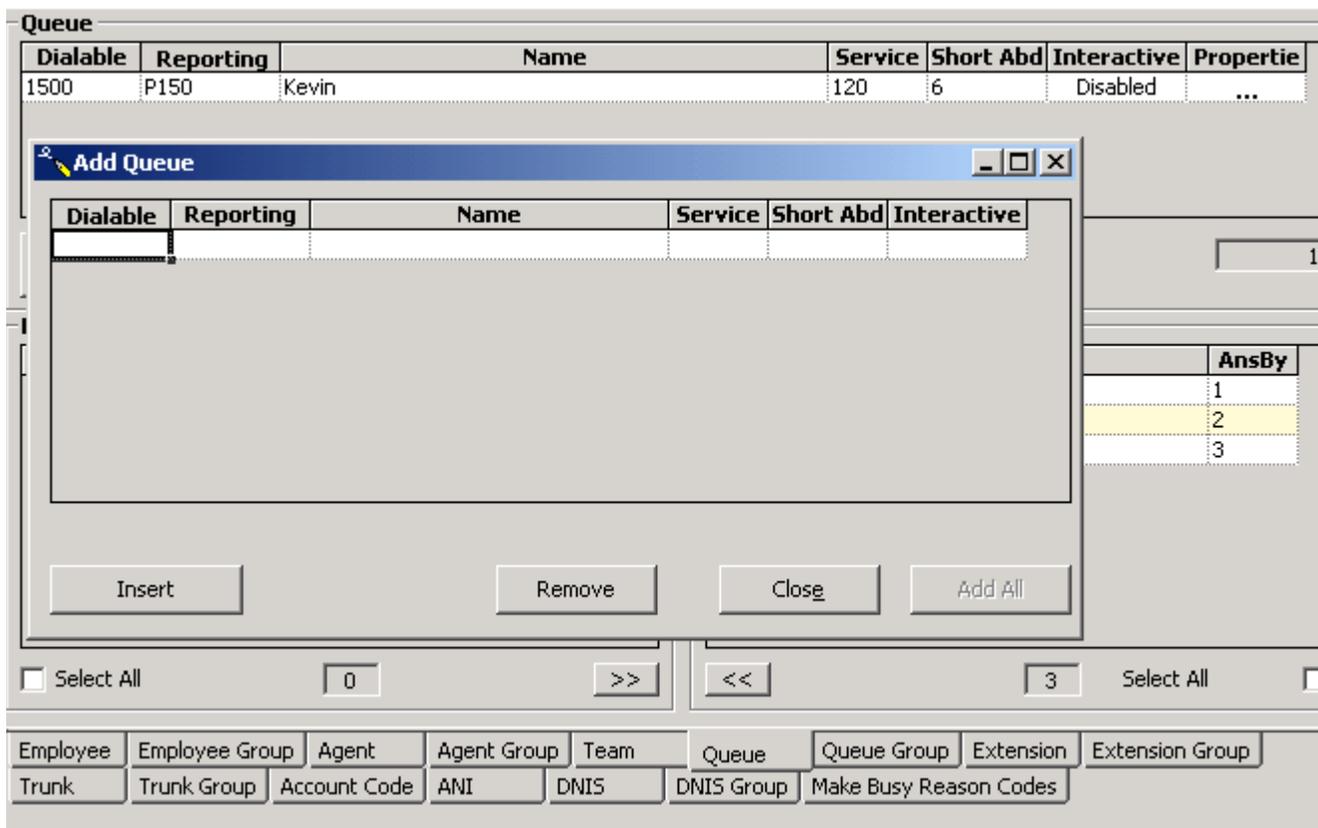
You must update the real-time clients. (See Figure 5-24.)

13. Click **Notify Realtime Clients**.

Figure 5-24 Notify real-time clients

Setting the re-synchronization time

1. Click **Start=>Programs=>Mitel Networks=>Management Console**.
2. Click **Time MiTAI AutoSynchronization Runs**.
   The Time Selection window appears. (See Figure 5-25.)
3. Select the time for the automatic synchronization to occur.
4. Click **OK**.
5. Close the Management Console.

Figure 5-25 Management Console
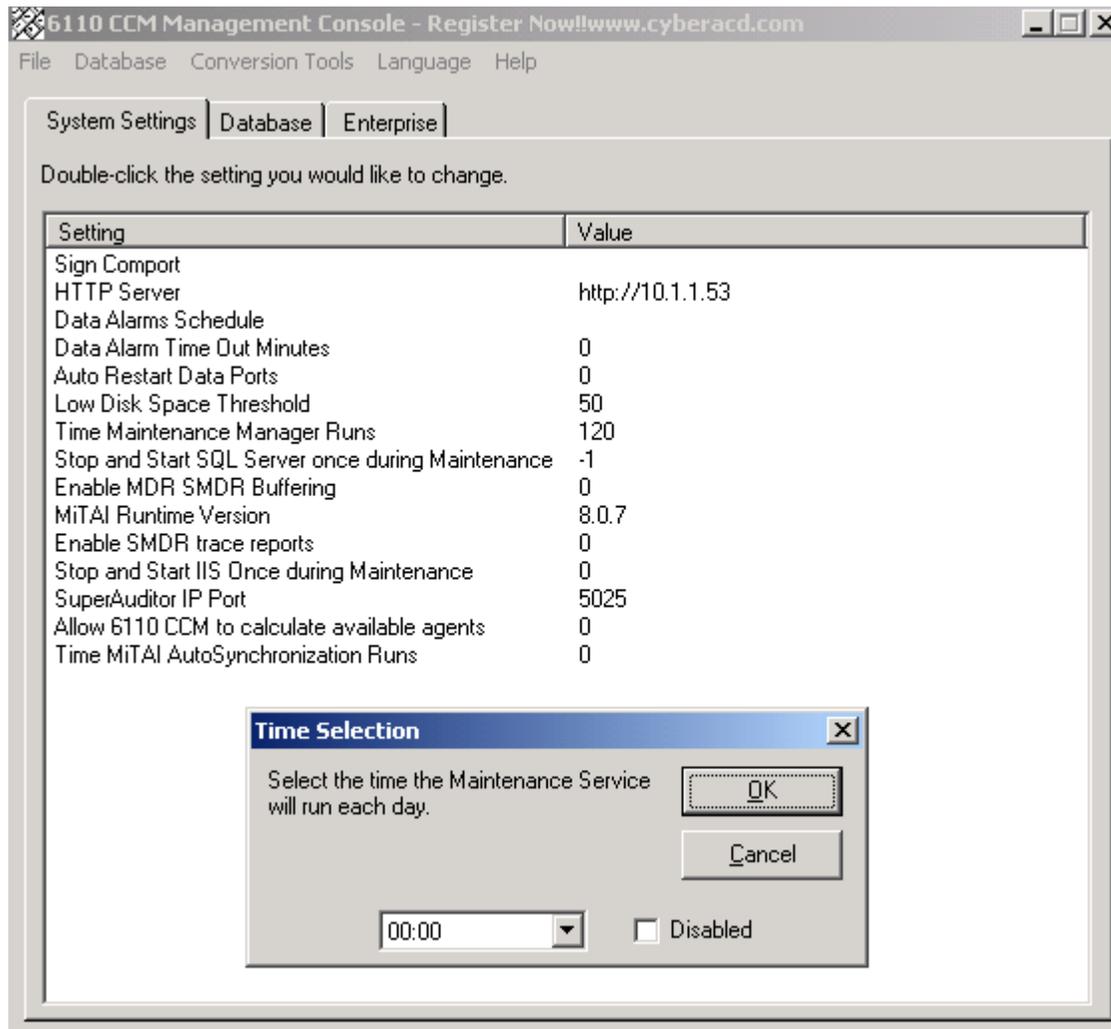
Security

After you install 6110 CCM, you must grant users access to the 6110 CCM Web site. When users browse to the 6110 CCM Enterprise server to start 6110 CCM, security requires they provide a valid user name and password. 6110 CCM security challenges users a second time if they attempt to run an application to which they are not permitted access.

Starting with version 2.8, Mitel Networks 6110 CCM has new security features. The security can now be as basic or as flexible (advanced) as you need it.

With security roles, you can define what you want users to have access to. By default the security role is Not Restricted (to the Web site). However you have the option of creating a more customized security role and then assign users to it.

Creating a Security Role

NOTE: Every time the new install is run a default user is created. The default gives both prairieFyre staff and the installer the assurance that there is at least one account with which to access the Web site.
- Username: _Admin
- Password: _Password
- Security Role: Not Restricted, may do anything

You must change the account password from the default to a unique password after EACH installation of Mitel Networks 6110 CCM.

There are two categories of Security Role: Basic and Advanced. You can create a Basic Security Role to restrict user access to specific applications, or you can create an Advanced Security Role to restrict user access to customized lists: Device Lists, Report Lists, and/or User Lists.

NOTE: For you to assign security roles, your account must be associated to a security role that does not restrict you from administering security.

Creating a Basic Security Role

When you first access the prairieFyre Web site, users by default have total access to the Web site. If you want some users to have access to the Web site, but do not want them to have access to everything (for example, you do not want them to administer security) then you must create a Security Role with that characteristic.

1. Click **YourSite=>Security**.
2. Click **Security Roles**.
3. Click **Add**.
4. Figure 5-26 appears.
5. After **Role name**, type the name of this security role.
6. After **Role description**, type the description of this security role.
7. On the **Basic** tab, select from the list that which the user is *not permitted* to access. For example, if agents are not permitted to administer security, select **Not allowed to administer 6110 CCM security**.
8. Click **Save**.

Figure 5-26 Security Roles

9. Log off and log back on to view the changes you just made.
10. Click **YourSite=>Security**.
11. Click **Security Roles**.

The name of the security role you just created appears under Name.

There are now two security roles: the original security roles (Not Restricted) and the security role you just created. You can assign the new security role to new users, or you can edit the current users' existing security roles to that of the new security role.

Users who are currently logged on will not be affected by changes made to their associated role until the next time they log on. If you want the security role changes to take effect immediately, start and stop the 6110 CCM Web site from the Internet Server Manager. All clients will be disconnected and forced to re-log on.

Granting or restricting access to 6110 CCM

By default, security grants total access to the Website.

1. Click **YourSite=>Security**.
   Figure 5-27 appears.
2. Click **Users**.

Figure 5-27 Security

What part of CyberACD Security would you like to administer?

- Users
  Add, edit or delete CyberACD Users.

- Security Roles
  Add, edit or delete CyberACD Security Roles.

- Security Lists
  Add, edit or delete CyberACD Security Lists.

Figure 5-28 appears. The users and their associated security roles are listed here.
3. Click **Add**.

Figure 5-28 User Administration

CyberACD User Administration

Username	Associated Security Role
Howard Aldwinckle	Not Restricted
Elaheh Azarbar	Not Restricted
Eric Justason	Not Restricted
Lee Bridger	Not Restricted
Judy Cuglietta	Not Restricted
Micheline Kiwan	Not Restricted
Zvonko Krupilnicky	Not Restricted
Hilda Wadsworth	Not Restricted
Judy Hardiman	Not Restricted
Vera Near	Not Restricted
Veronica Donville	Not Restricted

Add   Edit   Delete

Figure 5-29 appears.
4. Type the user information into the text boxes.
5. After **Security Role**, select the appropriate Security Role.
   All new Security Roles will be listed here.
6. After **Associated Employee**, select the employee. The Associated Employee list will include all configured and licenced 6110 CCM employees. You must associate the user with the employee if that employee is an agent who answers the telephones. If the employee is not an agent who answers the telephone, then select No associated employee.
7. Click **Save**.

Figure 5-29

CyberACD User Administration: Add User

First Name:		Last Name:	
E-mail address:		Nick Name:	
User name:		Password:	
Security Role:	Not Restricted	Associated Employee:	(No associated e

<< Back to Security Main Menu

Creating lists

You must create a User List, a Report List, and/or a Device List before you create an Advanced Security Role. With these lists, you can fine-tune a Security Role. The User List restricts access to employees Chat. The Report List restricts access to report types. The Device List restricts access to historical reporting, real-time, and 6115 CCM statistics.

Creating a User List

You create a User List to restrict access to Chat.

1. Click **YourSite=>Security**.
2. Click **Security Lists**.
   The Security List Administration window appears.
3. After **Select List Type**, select **User Lists**.
4. Click **Add**.

The Report List Administration - User List, Figure 5-30 appears.

5. After **List name**, type the list name (for example, No Chat).
6. After **List description**, type the list description, (for example, No Chat).
7. Select all employees who you are restricting access to Chat.
8. Click **Save**.

Figure 5-30 Report List Administration - User List

Creating a Report List

You create a Report List to restrict specific report types on specific users. For example, you might want manager to view only Employee Reports (specific report type) on the employees they manage only (specific devices). By creating a Report List, you can restrict access to that specific report type only.

1. Click **YourSite=>Security**.
2. Click **Security Lists**.
   The Security List Administration window appears.
3. After **Select List Type**, select **Report Lists**.
4. Click **Add**.
5. After **List name**, type the report type (for example, only Employee Reports).
6. After **List description**, type the report list description, for example, Restrict all but Employee Reports).
7. Select the first report type (for example, 4Sight Reports).

The Report List Administration - Add Report List window, Figure 5-31 appears.

8. Select all reports listed that you do not want the manager to have access to (for example 4Sight Forecast and 4Sight Group Forecast).

9. Select the next report type (for example, Agent Reports).

10. Select all reports listed that you do not want the manager to have access to.

11. Repeat steps 9-10 until you have selected every report you do not want the manager to have access to.

12. Click **Save**.

Figure 5-31 Report List Administration - Add Report List window

There is now an *only Employee Reports* Report List. See the Security List Administration window, Figure 5-32.

Figure 5-32 Security List Administration window

Creating a Device List

You create a Device List to restrict access to statistics on specific users. For example, you might want a manager to view only Employee Reports (specific report type) on the employees he manages only (specific devices). By creating a Device List, you can restrict access to those specific employees only.

A Device is real-time or 6116 CCM statistics from which you can create a historical report or view real-time or 6115 CCM statistics: Agents, Agent Groups, Queues, Queue Groups, Extensions, Extension Groups, Trunks, Trunk Groups, Employees, Employee Groups, Teams, and DNIS.

1. Click **YourSite=>Security**.
2. Click **Security Lists**.
   The Security List Administration window appears.
3. After **Select List Type**, select **Device Lists**.
4. Click **Add**.
5. After **List name**, type the device type (for example, only Employee Group 6).
6. After **List description**, type the report list description, for example, (Dan's agents).
7. After **Select Device Group Type**, select the first device group (for example, Employee Groups).
8. Select all the devices you do not want the manager to have access to.
9. After **Select Device Group Type**, select the next device group.
10. Select all the devices you do not want the manager to have access to.
    You can click on the Device Group Type to view the members. This is for reference only.
11. Repeat steps 9-10 until all devices are selected except for the device you want the manager to have access to.
12. Click **Save**.

Figure 5-33 appears.

Figure 5-33 Security Lists

Creating an Advanced Security Role

You must create a User List, a Report List, and/or a Device List before you create an Advanced Security Role. With these lists, you can fine-tune a Security Role. The User List restricts access to employees Chat. The Report List restricts access to report types. The Device List restricts access to real-time and 6115 CCM statistics.

Creating an Advanced Security Role that restricts access to reports

Once you create a Device List you can create an Advanced Security Role that restricts access to reports, based on the Report List. See Figure 5-34.

1. Click **YourSite=>Security**.
2. Click **Security Roles**.
3. Click **Add**.
4. Click the **Advanced** tab.
5. After **Role name**, type the name of this security role.
6. After **Role description**, type the description of this security role.
7. Under **Reporting**, select the Report List that you have created that you want to apply to this manager. (For example, select only Employee Reports).
8. Click **Save**.

Figure 5-34 Advanced Security Role

Creating an Advanced Security Role that restricts access to real-time and 6115 statistics

Once you create a Device List you can create an Advanced Security Role that restricts access to real-time and 6115 statistics, based on the Device List.

1. Click **YourSite=>Security**.
2. Click **Security Roles**.
3. Click **Add**.
4. Click the **Advanced** tab.
5. After **Role name**, type the name of this security role.
6. After **Role description**, type the description of this security role.
7. Under **Devices**, select the Device List that you have created that you want to apply to this manager. (For example, select Employee Group 6).
8. Click **Save**.

Creating an Advanced Security Role that restricts access to Chat

Once you create a User List you can create an Advanced Security Role that restricts access to Chat, based on the User List.

1. Click **YourSite=>Security**.
2. Click **Security Roles**.
3. Click **Add**.
4. Click the **Advanced** tab.
5. After **Role name**, type the name of this security role.
6. After **Role description**, type the description of this security role.
7. Under **Chat**, select the User List that you have created that you want to apply to this manager. (For example, select No Chat).
8. Click **Save**.

Viewing My Security Role

You can view what your Security Role permits or restricts.

1. Click **My Options=>Security Role**.

You can either view the Restricted View (what you cannot do), or you can view the Allowed View (what you can do).

Chapter 6 Real-time monitors
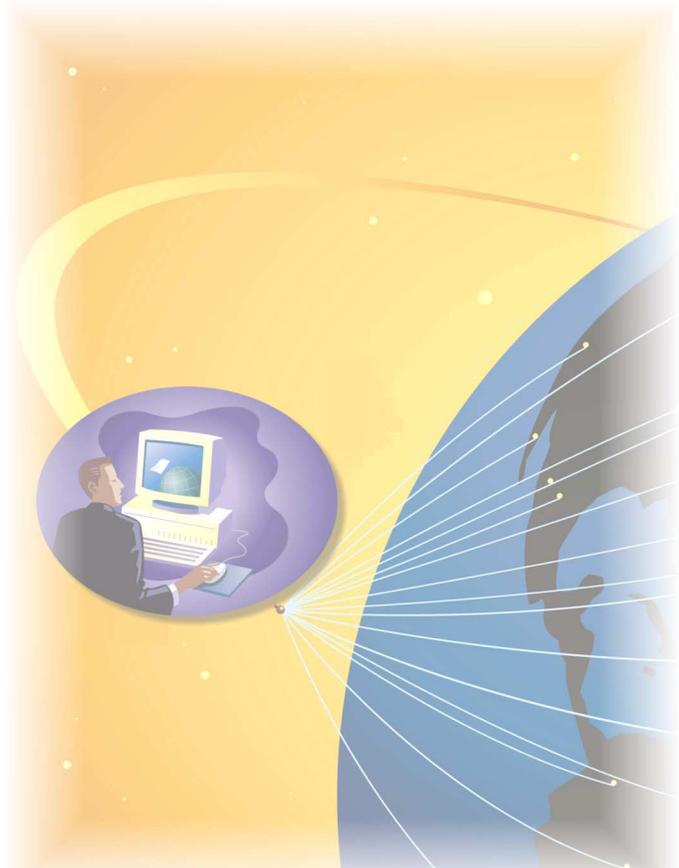
*Monitor real-time call center
activities over the Web with
SuperAdvisor. Keep agents up to
date with AgentAdvisor. With
Interactive in conjunction with
SuperAdvisor and AgentAdvisor,
the monitoring power increases.*

Real-time monitors

Supervisor monitors, agent monitors, and (reader boards) wall signs display real-time telephone system data. Supervisors and agents view real-time statistics over the intranet or Internet in SuperAdvisor and AgentAdvisor respectively. Supervisors display text messages and call center statistics on one or more Spectrum light emitting diode (LED) wall signs using WallBoarder.

The prairieFyre Service continuously updates the SuperAdvisor, AgentAdvisor, and WallBoarder displays with telephone system data. It updates the SuperAdvisor for the SX-2000 and the SX-200 with real-time (SX-200 EL/ML LIGHTWARE Release 4.0 and greater) with SMDR and ACD records.

The prairieFyre Service forwards real-time data to the Structured Query Language (SQL) database and to connected clients through Transmission Control Protocol-Internet Protocol (TCP-IP). TCP-IP is the basic communication language (protocol) of the Internet, and a communications protocol used in private networks (intranets).

Figure 6-1 illustrates the connectivity between the prairieFyre Service and connected clients viewing the 6110 CCM real-time applications.

NOTE: The following information applies to the SX-2000 and the SX-200 with real-time. For information on viewing real-time data with the SX-200 before EL/ML LIGHTWARE Release 4.0, see *CyberTerminal*.

Figure 6-1 Real-time monitors
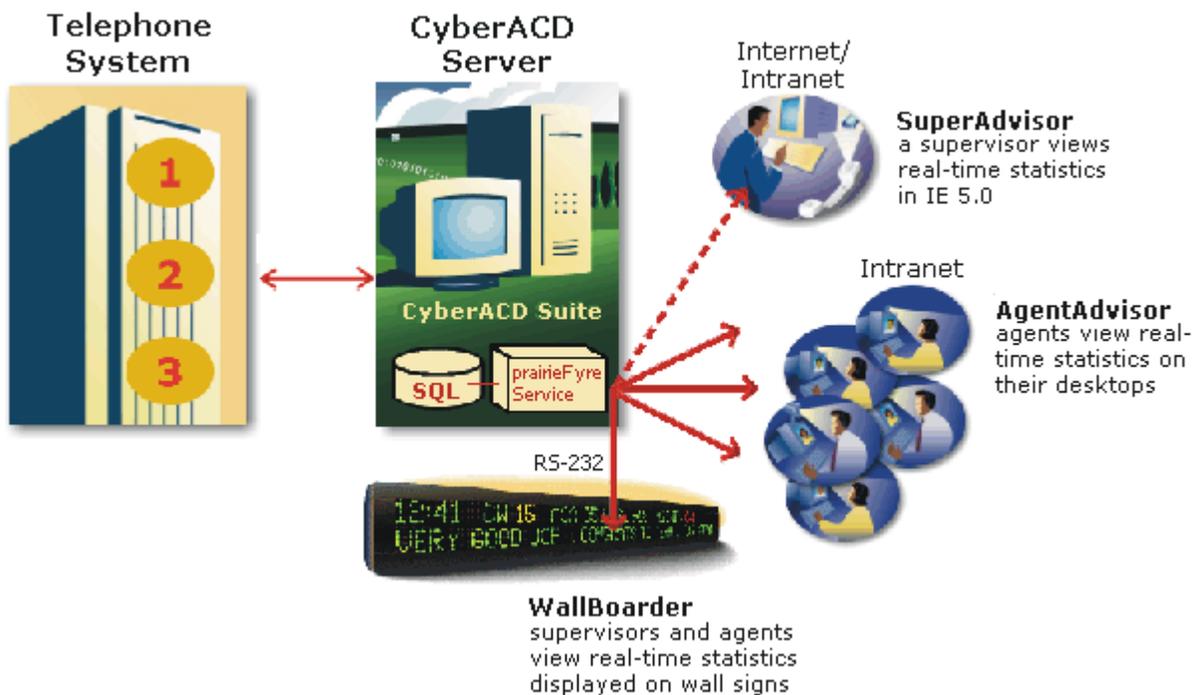
SuperAdvisor

SuperAdvisor displays statistics on agent and queue activity in color-coded grids. The grid cells change color when performance changes to keep supervisors informed of the service provided to callers.

SuperAdvisor main screen

For the SX-2000 and the SX-200 with real-time, when you click RealTime=>SuperAdvisor Figure 6-2 appears.

Figure 6-2 SuperAdvisor main screen
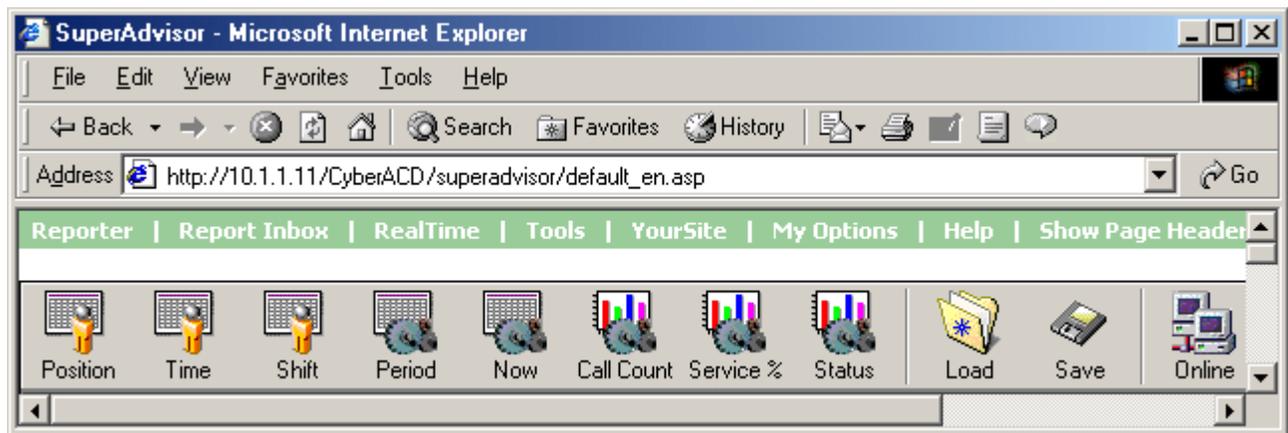
SuperAdvisor consists of 11 monitors. The Agent State by Position, Employee State by Position, Agent State by Time, Employee State by Time, and Agent Shift monitors provide agent availability statistics. The Queue by Period, Queue Now, and Queue Group Now monitors provide queue statistics. The Call Count by Queue, Queue Service Level Percent, and Queue Status monitors provide graphic displays on queues statistics. With the Load profile, you can load a previously saved profile. With Save profile, you can save your current profile.

On the SuperAdvisor main screen, you can create profiles to save threshold settings and display characteristics you define for monitors. The Save button saves all open monitors under one profile name. The Load button loads existing profiles and deletes profiles.

When you open a new monitor, the computer monitor icon turns green to verify you are receiving data. If the computer icon is marked with a red X, SuperAdvisor is not receiving data.

When you select devices, such as agents or queues, to display on a monitor you can specify the devices be sorted alphabetically or by device ID, in ascending or descending order. SuperAdvisor displays the devices across the grid in the order you specify. (See *Viewing real-time statistics* for more information).

NOTE: 6110 CCM associations are based on database teams and groups. In programming the YourSite Database, you must create agent IDs and associate the agents to employees and to agent groups. You must associate the agent groups to the queues for which they answer calls. You must associate the employees to employee groups and the queues to queue groups. You must create these associations in the database in order to view real-time data and report on these devices. If you are reporting on extensions, trunks, DNIS numbers, and account codes, you must add these devices to the YourSite Database and associate the extensions to extension groups, trunks to trunk groups, and DNIS numbers to DNIS groups.

Grid properties

When you open an agent or queue monitor and right-click the grid, the following menu items appear.

Clear Alarms

The Clear Alarms command clears any current performance threshold alarms in SuperAdvisor.

Tile Horizontally/Vertically

The Tile Horizontally command distributes active monitors down the SuperAdvisor window. The Tile Vertically command distributes active monitors across the SuperAdvisor window.

Add/Remove Device IDs

The Add Device IDs command specifies devices or device groups to monitor. If you add an agent, the agent is placed in the current cell. If you add multiple agents, they are added to the bottom of the grid. The Remove Device IDs command removes one or more devices or device groups from the current grid.

Grid Dimensions

On the Agent State by Position grid, the Grid Dimensions command adds or deletes columns or rows. It deletes them from the lower right side of the grid.

Size Grid to Frame

The Size Grid to Frame command resizes a grid re-distributes the grid cells equally across the grid and auto-fits the grid to the frame.

Sort Grid by State

On the Agent State by Position grid, the Sort Grid by State command sorts agents by state and time in state. SuperAdvisor displays the agents across the grid in the following order:

- On ACD agents
- ACD Hold agents
- Wrap Up agents
- Idle agents
- On Non ACD agents
- Non ACD Hold agents
- Outbnd agents
- Outbnd Hold agents
- Make Busy agents
- Do Not Disturb agents
- Log Off agents
- Unknown agents

Toggle Toolbar

The Toggle Toolbar command hides the toolbar.

Chat Login

The Chat Login command logs on users so they can send online messages.

Chat

The Chat command sends an online message to one or more agents or supervisors.

Legend

The Legend command displays a legend of agent state icons and their meanings.

Properties

The Properties menu specifies grid display characteristics and performance thresholds for queues and agents.

Employee Information

For employee monitors, the Employee Information menu displays the Employee Information dialog box.

SuperAdvisor monitors

The following section describes the monitors provided by the SuperAdvisor application.

Agent State by Position and Employee State by Position grids

The Agent State by Position and Employee State by Position grids provide real-time agent information. They display the state, agent name, agent ID, extension number (or queue number for agents On ACD or on ACD Hold), and time in state, as illustrated in Figure 6-3.

Figure 6-3 Agent State by Position grid

You can change the height and width of grids and charts in SuperAdvisor by left-clicking the lower right corner of the display and performing a drag-and-drop operation. You can rearrange grid cells on the Agent/ Employee State by Position grid by left-clicking a cell, and performing a drag-and-drop operation. Table 7-1 lists the agent states provided.

Table 6-1   Agent states

	Term	Meaning
	On ACD	an agent on an ACD call
	ACD Hold	an agent who has placed an ACD call on hold
	Idle (green icon)	an agent logged on and waiting to receive a call

Table 6-1   Agent states

	On Non ACD	an agent involved in an incoming non-ACD call or agent originated call
	Non ACD Hold	an agent who has placed a non-ACD call on hold
	OutBnd	an agent on an outgoing call
	OutBnd Hold	an agent who has placed an outgoing call on hold
	Do Not Disturb	an agent who has activated Do Not Disturb and is not available to receive any ACD or non-ACD calls
	Make Busy	an agent who is not available to receive ACD calls but can receive calls dialed directly to his or her extension
	Wrap Up	an agent completing paperwork who is unavailable to receive calls
	Unknown	an agent who has not generated any activity since 6110 CCM was started
	Log Off (gray icon)	an agent not currently logged on to the ACD system

If you have agents who are cross trained to answer calls for different departments (and log in and out of various queues) the telephone system requires you assign the agents multiple IDs. You use the Employee State by Position grid to view the activities of agents with multiple agent IDs.

For example, agent Kathy Reid answers calls for English, French, and Spanish queues. In the YourSite Database you assign her three agent IDs (one for each queue for which she answers calls) and an employee ID. (See *Chapter 5 YourSite* for more information on employee IDs.)
You click the Agent State by Position icon and select agents (including Kathy Reid) to monitor. The Agent State by Position grid displays three cells for Kathy Reid, as illustrated in Figure 6-4. The first two cells show Kathy logged off. The third cell shows Kathy's current state and agent ID. Each cell displays a different agent ID for Kathy. Agents can log on using only one agent ID at a time. If your agents have multiple IDs (and therefore multiple cells) the Agent State by Position grid becomes cluttered.

Figure 6-4 Agent State by Position grid - viewing multiple agent IDs

Alternatively, you can view the Employee State by Position grid. To view the grid, you click the Position icon and select employees, rather than agents, to monitor. The grid displays one cell for Kathy, with her current state and agent ID, as illustrated in Figure 6-5.

Figure 6-5 Employee State by Position grid - viewing a single employee ID

Kathy is currently logged on to Queue 206 using Agent ID 76190. Sometime later you notice Kathy logs on to Queue 205 using Agent ID 76191, as illustrated in Figure 6-6.

Figure 6-6 Employee State by Position grid

If you right-click the Employee State by Position grid and click Employee Information, Figure 6-7 appears.

Figure 6-7 Employee information
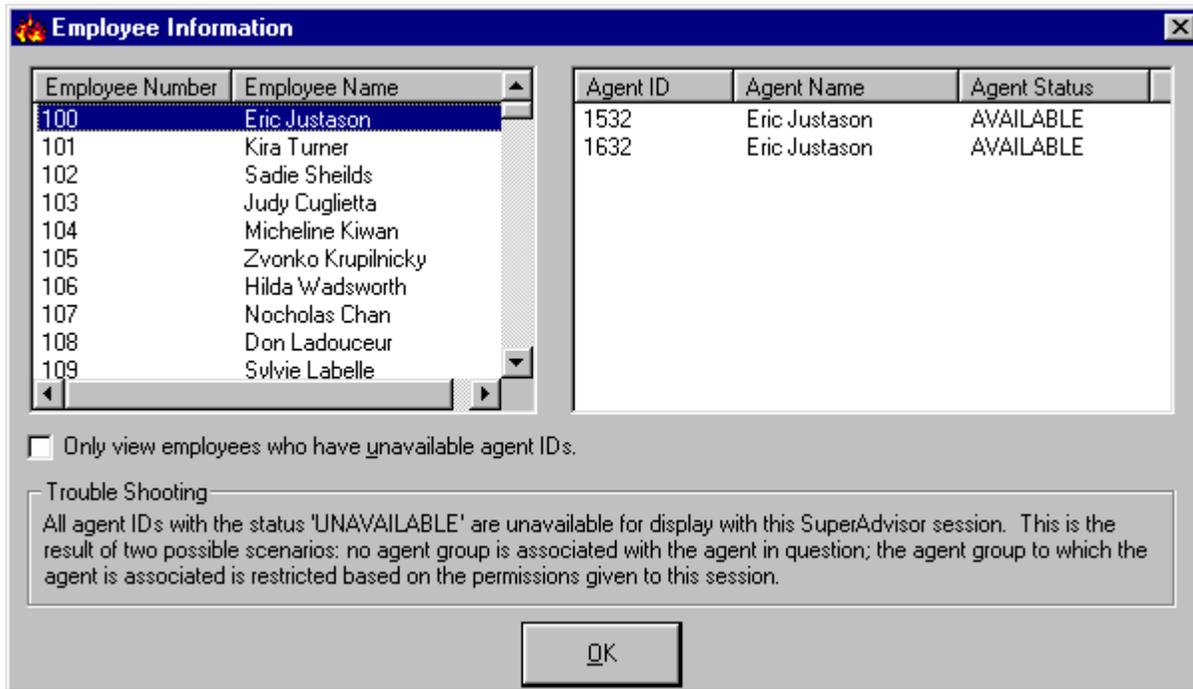
You use the Employee Information dialog box to verify the agent IDs defined for an agent (in the YourSite Database). The Employee Information dialog box tags agents as *unavailable* under the following conditions:

- The agent ID you are trying to view does not belong to any of the agent groups programmed in Your-Site
- You are restricted from viewing the agent group to which the agent ID is associated in YourSite

Unavailable agents are agents not being tracked in real-time and therefore not available to be displayed in agent and employee grids. We recommend you periodically check the availability status of your agents on the Employee Information dialog box.

Agent State by Time and Employee State by Time grids

The Agent State by Time and Employee State by Time grids provide real-time agent information under ACD, Idle, On Non ACD, Unavailable, and Log Off column headings. They display the state, agent name, agent ID, extension number (or queue number for Agents On ACD and agents on ACD Hold), and time in state.

The Agent State by Time and Employee State by Time grids place agents under the column heading that corresponds to their current state, as illustrated in Figure 6-8. Each column lists the agents in order of time in state. You can specify which columns of agent statistics are displayed.

Figure 6-8 Agent State by Time grid

Table 7-2 lists the column headings and their associated agent states.

Table 6-2   Agent State/Employee State by Time categories

Category	Associated Agent States
On ACD	includes agents On ACD and agents on ACD Hold
Idle	includes agents in the Idle state
On Non ACD	includes agents On Non ACD, on Non ACD Hold, OutBnd agents, and OutBnd Hold agents
Unavailable	includes agents in Do Not Disturb, Make Busy, Wrap Up, and Unknown
Log Off	includes agents in the Log Off state

If you have agents who are cross trained to answer calls for different departments (and log in and out of various queues) the telephone system requires you assign the agents multiple IDs. You use the Employee State by Time grid to view the activities of agents with multiple agent IDs. (See *Agent State by Position and Employee State by Position grids* for more information on viewing agents with multiple agent IDs.)

Agent Shift grid

The Agent Shift grid provides running totals of statistics on individual agents for the day, as illustrated in Figure 6-9. You can specify which columns of agent shift statistics are displayed, and sort individual grid columns in ascending or descending order.

Figure 6-9 Agent Shift grid

NOTE: The number of agents logged on at any time must be consistent with your software licence. If you have more agents logged on than your licence permits, *"[licence Is In Violation of Max Agents Allowed]"* will appear in place of your company name on the 6110 CCM user interface (UI) and on any reports you generate.

Table 7-3 lists the column headings and their associated agent states.

Table 6-3   Agent Shift statistics

Term	Meaning
Log On	the time the agent logged on
Log Off	the time the agent logged off
Shift	the total shift time for the agent
ACD Time	the total time the agent spent on ACD calls
Hold ACD Time	the total time for ACD calls put on hold
Non ACD Time	the total time the agent spent on non-ACD calls
Hold Non ACD Time	the total time for non-ACD calls put on hold
Out Time	the total time the agent spent on outbound calls
Hold Out Time	the total time for outbound calls put on hold
DND Time	the total time the agent spent in the do not disturb state
MKB Time	the total time the agent spent in the make busy state
Wrap Up Time	the total time the agent spent in the wrap up state
DND Count	the number of times the agent entered the do not disturb state

Table 6-3   Agent Shift statistics

MKB Count	the number of times the agent entered the make busy state
ACD Count	the total number of ACD calls answered by the agent
Short ACD Count	the total number of ACD calls the agent answered that lasted less than 20 seconds
Hold ACD Count	the number of times the agent put ACD calls on hold
Non ACD Count	the total number of non-ACD calls answered by the agent
Hold Non ACD Count	the number of times the agent put non-ACD calls on hold
Out Count	the total number of outgoing calls the agent made
Hold Out Count	the number of times the agent put outgoing calls on hold

Queue by Period grid

The Queue by Period grid displays queue statistics collated over 15-minute intervals, as illustrated in Figure 6-10.

Figure 6-10 Queue by Period grid

You can rearrange columns on the Queue by Period grid. You click a column header to select a column, release the mouse button, click the column header again and move the column to another place on the grid using a drag-and-drop operation. In addition, you can specify which columns of queue statistics are displayed.

NOTE: When an agent receives an ACD call and fails to pick up the call after X seconds or X rings, the telephone system places the agent in Make Busy. The telephone system requeues the call (places the call back in the same queue) and offers it to the next available agent.

Table 7-4 lists the queue statistics provided.

Table 6-4   Queue by Period statistics

Term	Meaning

Table 6-4   Queue by Period statistics

Offr'd	the total number of calls offered to the queue
Ans	the total number of calls answered by agents
Short Abn	the total number of calls abandoned before the short abandon time programmed in YourSite
Abn	the total number of calls abandoned before being answered by agents
Interflow	the total number of calls interflowed
ReQ	the total number of calls requeued
AnsBy1-4 %	a count of all calls answered by the first, second, third, and forth answer points
Total Talk	the total time agents spent talking to callers
Avg Talk	the average time agents spent talking to callers
Avg TT Ans	the average number of minutes callers waited before agents answered their calls
Avg TT Abn	the average number of minutes callers waited before abandoning calls
Avg TT Inter Flow	the average number of minutes callers waited before being interflowed
Svc Lvl % Today	the percentage of calls answered within your service level time value
Ans %	the percentage of calls answered compared to the total number of calls offered to the ACD queue for the day

Queue Now and Queue Group Now grids

The Queue Now grid displays the following statistics across queues: Calls Wtg, Long Wtg, Agts Avail, Offr'd Ans, Abn, Inter Flow, ReQ, AnsBy 1-4 %, Avg TT Ans, Avg TT Abn, Total Talk, Avg Talk, Svc Lvl %, Ans %, Total Q Unavail, and Current Q Unavail.

The Queue Group Now grid displays the following statistics across queue groups: Max Calls Wtg, Max Long Wtg, Max Agts Avail, Offr'd, Ans, Abn, Inter Flow, ReQ, AnsBy 1-4 %, Avg TT Ans, Avg TT Abn, Total Talk, Avg Talk, Svc Lvl %, Ans %, Total Q Unavail, and Current Q Unavail.

NOTE: SuperAdvisor derives the Calls Wtg, Max Calls Wtg, Long Wtg, Max Long Wtg, Agts Avail, and Max Agts Avail statistics from the ACD stream. If the telephone system has not updated 6110 CCM with ACD real-time statistics in the last 90 seconds, question marks appear in place of these statistics.

Figure 6-11 illustrates the Queue Now grid.

Figure 6-11 Queue Now grid

You can rearrange columns on the Queue Now and Queue Group Now grids. You click a column header to select a column, release the mouse button, click the column header again and move the column to another place on the grid using a drag-and-drop operation. In addition, you can specify which columns of queue statistics are displayed.

NOTE: When an agent receives an ACD call and fails to pick up the call after X seconds or X rings, the telephone system places the agent in Make Busy. The telephone system requeues the call (places the call back in the same queue) and offers it to the next available agent.

Table 7-5 lists the real-time and over-the business-day Queue Now statistics.

Table 6-5   Queue Now statistics

Term	Meaning
Calls Wtg	the current number of callers queued up waiting for an agent to become available, including those listening to silence, music, or recorded announcements
Long Wtg	the current duration, in minutes and seconds, of the call waiting the longest in queue
Agts Avail	the current number of agents on ACD calls
Offr'd	the total number of calls offered to the queue

Table 6-5   Queue Now statistics

Ans	the total number of calls answered by agents for the day
Abn	the total number of calls abandoned before being answered by an agent for the day
Interflow	the total number of calls interflowed for the day. Interflow is a mechanism that directs a queue delayed call to voice mail or to another answering point
ReQ	the total number of calls requeued for the day
AnsBy1-4 %	a count of all calls answered by the first, second, third, and forth answer points
Avg TT Ans	the current average time callers wait before being answered by an agent
Avg TT Abn	the current average time callers wait before abandoning calls
Total Talk	the total talk time for the day
Avg Talk	the average talk time for the day
Svc Lvl %	the percentage of calls answered within your service level time value over the day
Ans %	the percentage of calls answered compared to the total number of calls offered to the ACD queue for the day
Total Q Unavail	the total number of times during the day callers dialed the queue and were rerouted because no agents were logged on to the queue or you set the queue to Unavailable See Path Unavailable Calls.
Current Q Unavail	This is the total number of callers that were rerouted after you set the queue to Unavailable. When you make the queue available again, this value resets to zero.

Call Count by Queue chart

The Call Count by Queue chart displays over-the business-day queue statistics, as illustrated in Figure 6-12. It displays the total Calls Answered, Calls Abandoned, Calls Interflowed, and Calls Requeued for Queue 502 for the day.

NOTE: When an agent receives an ACD call and fails to pick up the call after X seconds or X rings, the telephone system places the agent in Make Busy. The telephone system requeues the call (places the call back in the same queue) and offers it to the next available agent.

Figure 6-12 Call Count by Queue chart
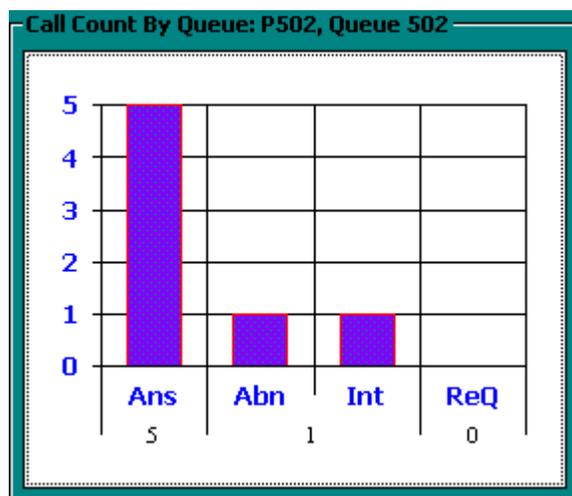
Queue Service Level Percent chart

The Service Level Percent chart displays over-the business-day queue statistics, as illustrated in Figure 6-13. It displays the average Service Level Percent, Answer Percent, and Calls Answered by the first, second, and third answering points for Queue 504 for the day.

Figure 6-13 Queue Service Level Percent chart
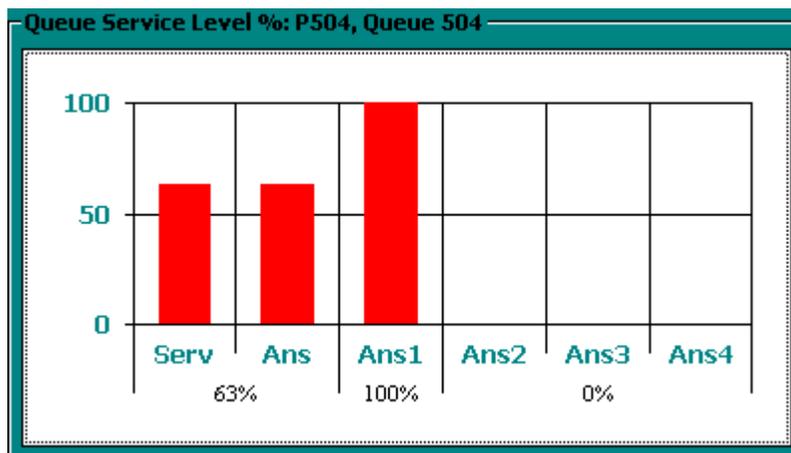
Queue Status chart

The Queue Status chart displays over-the business-day queue statistics, as illustrated in Figure 6-14. It displays the Calls Waiting, Remote Calls Waiting, Longest Waiting, and Remote Longest Waiting for Queue 503 for the day.

Figure 6-14 Queue Status chart
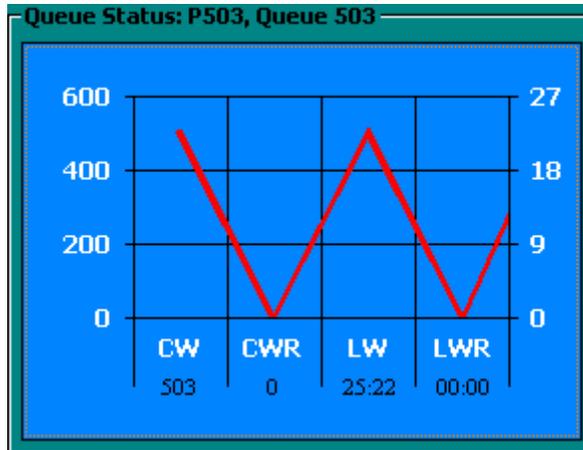
Viewing real-time statistics

To view statistics on your desktop in SuperAdvisor:

1. Click the **Position** icon and click **Agent by Position**.
   Figure 6-15 appears.

Figure 6-15 Device IDs
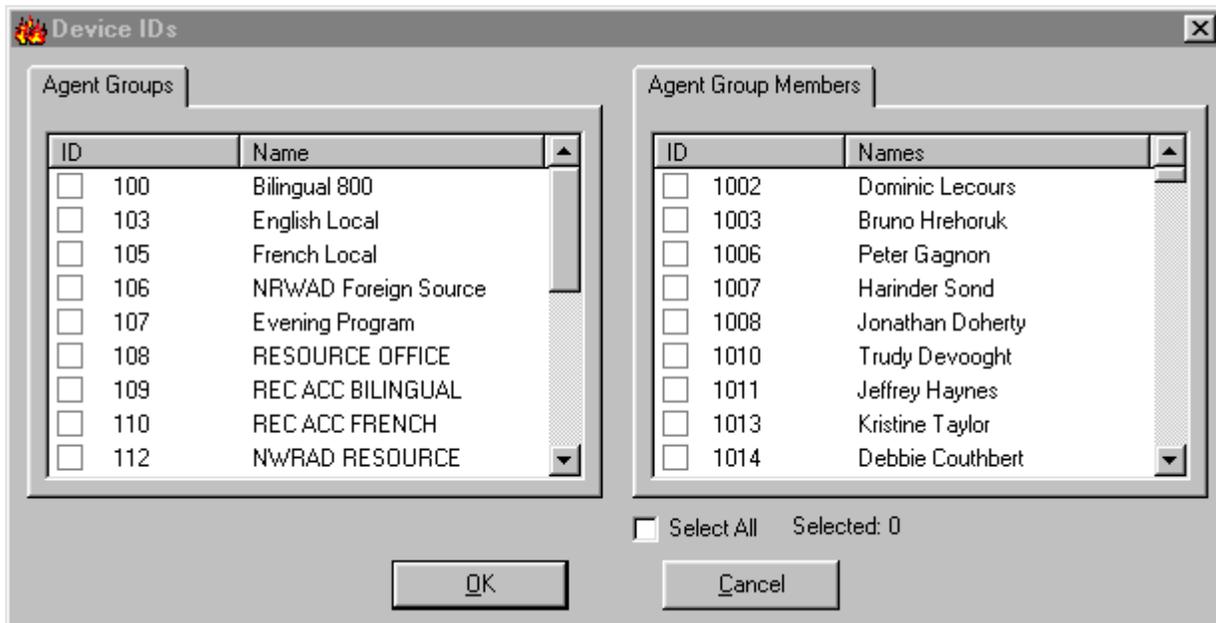
2. Under **Agent Groups** select agent groups to monitor. Alternatively, under **Agent Group Members** select agents to monitor.
   On the Device IDs dialog box you can sort devices alphabetically, or by device ID, in ascending or descending order.
3. Click the **ID** or **Name** header for a device or device group list to sort it by ID or name.
4. Click **OK**.
   SuperAdvisor displays the devices across the grid in the order you specified.
5. Repeat steps 1 to 4 to open the **Queue Now** monitor.

When you open a second monitor, SuperAdvisor places it on top of the first monitor. You can move the monitor to a new position using a drag-and-drop operation.

You can right-click any monitor to view the following menu options and a list of active monitors. If your monitors overlap one another, you can switch between monitors by right-clicking a monitor and selecting a different monitor from the menu. (See Figure 6-16.)

NOTE: You can change the height and width of grids and charts in SuperAdvisor by left-clicking the lower right corner of the display and using a drag-and-drop operation.

NOTE: 6110 CCM associations are based on database teams and groups. In programming the YourSite Database, you must create agent IDs and associate the agents to employees and to agent groups. You must associate the agent groups to the queues for which they answer calls. You must associate the employees to employee groups and the queues to queue groups. You must create these associations in the database in order to view real-time data and report on these devices. If you are reporting on extensions, trunks, DNIS numbers, and account codes, you must add these devices to the YourSite Database and associate the extensions to extension groups, trunks to trunk groups, and DNIS numbers to DNIS groups.

Figure 6-16 Monitor menu

Adding, rearranging, resizing, and sorting devices

You can add, rearrange, resize, and sort devices on grids. For example, to add additional agents to the Agent State by Position grid:

1. Right-click the **Agent State by Position** grid and click **Add Device IDs**.
2. Under **Agent Group Members**, select additional agents and click **OK**.
   SuperAdvisor adds the agents to the bottom of the Agent State by Position grid.

   NOTE: If you right-click a cell and add a single agent to the grid, the new agent replaces the agent in the current cell.

3. Right-click the grid and click **Legend** to view agent state icons and their meanings.
   To rearrange and resize agent cells on the Agent State by Position grid:Left-click an agent's cell and perform a drag-and-drop operation to move it to a different position on the grid.
4. Optionally click the column header above any column of agent state icons and drag the right edge of the header towards the left to make the column (and agent state icons) proportionately smaller. This resizes all agent state icons on the grid.

To enlarge the grid frame:
- Left-click the lower right corner of the display and perform a drag-and-drop operation.

To auto-fit the grid to the frame:
- Right-click the grid and click **Size Grid to Frame**.
   The grid cells change size to fit the new grid dimensions.

To sort agents on the Agent State by Position grid:
- Right-click the grid and click **Sort Grid by State**.

SuperAdvisor sorts the agents by state and time in state. SuperAdvisor displays the agents across the grid in the following order:
- On ACD agents
- ACD Hold agents
- Wrap Up agents
- Idle agents
- On Non ACD agents
- Non ACD Hold agents
- Outbnd agents
- Outbnd Hold agents
- Make Busy agents
- Do Not Disturb agents
- Log Off agents
- Unknown agents

Hiding grid fields

You can hide grid fields (columns) you are not interested in viewing on all grids that display queue information.

To hide grid columns:

1. Right-click the **Queue Now** grid and click **Properties**.
2. Click the **Column Headers** tab.
3. Under **Show/Hide Column Headers**, clear the check boxes of statistics you want to hide from view.
4. Click **OK**.

Defining grid styles

You can customize the appearance of grid elements, such as column and row headers.

NOTE: If you have more than one Agent/Employee State by Position or Agent/Employee State by Time grid displayed, any changes you make to the ACD variable threshold programming or grid styles effect all open Agent/Employee State by Position or Agent/Employee State by Time monitors.

1. Right-click an open monitor and click **Properties**.
2. Click the **Style** tab.
   Figure 6-17 appears.
3. In the **Grid Elements** list, click a grid element.
4. Click **Background**, **Font Type**, and **Font Color** and specify a background color, font type, and font color for the grid element.
5. Select alignment and grid options for the grid element.
6. Click **OK** to save style changes for the grid element.
7. Repeat steps 4 to 7 for other grid elements.
8. Click **OK**.

   NOTE: You can select multiple grid elements by pressing Shift or Control and apply styles across them.

Figure 6-17 Style tab
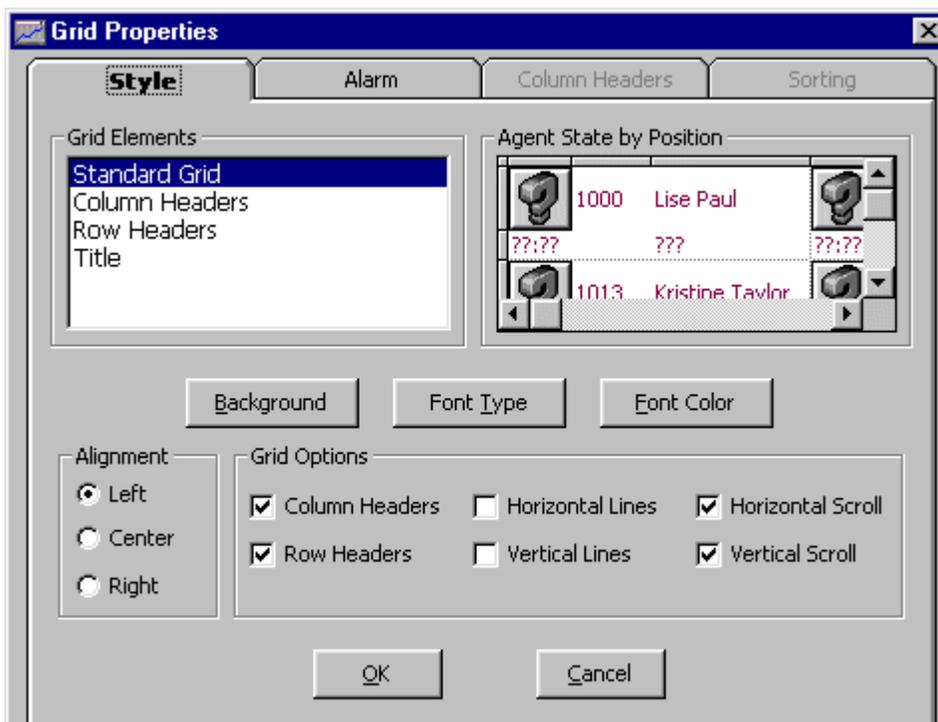
Defining chart styles

To define display characteristics for the Call Count by Queue, Queue Service Level Percent, and Queue Status charts:

1. Click the **Call Count** icon.
2. Right-click the display and click **Properties**.
   Figure 6-18 appears.
3. Specify chart characteristics (dimensions, drop shadow, background color, chart type and legend).
4. On the **Axis** tab, specify the width and color of axis lines, and axis scale characteristics.
5. Click the **Text/Fonts** tab.

Figure 6-18 Axis tab
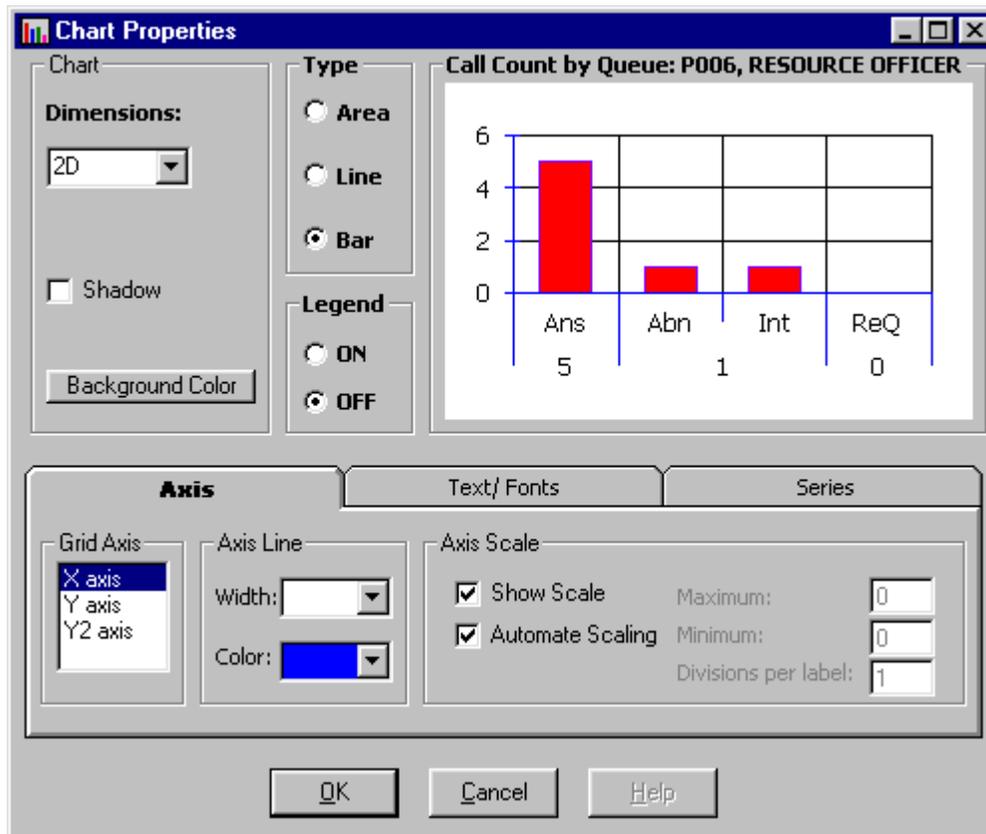
Figure 6-19 appears.

6. Specify axis label color and font properties.

7. Click the **Series** tab.

Figure 6-19 Text/Fonts tab
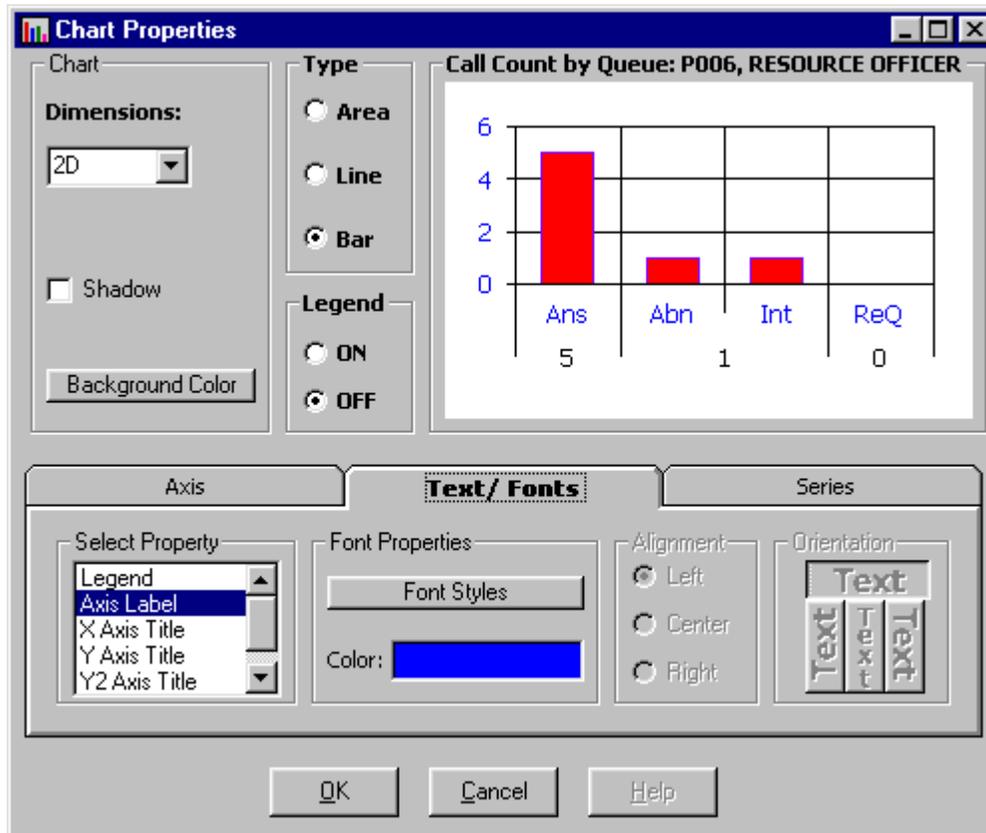
Figure 6-20 appears.

Figure 6-20 Series tab
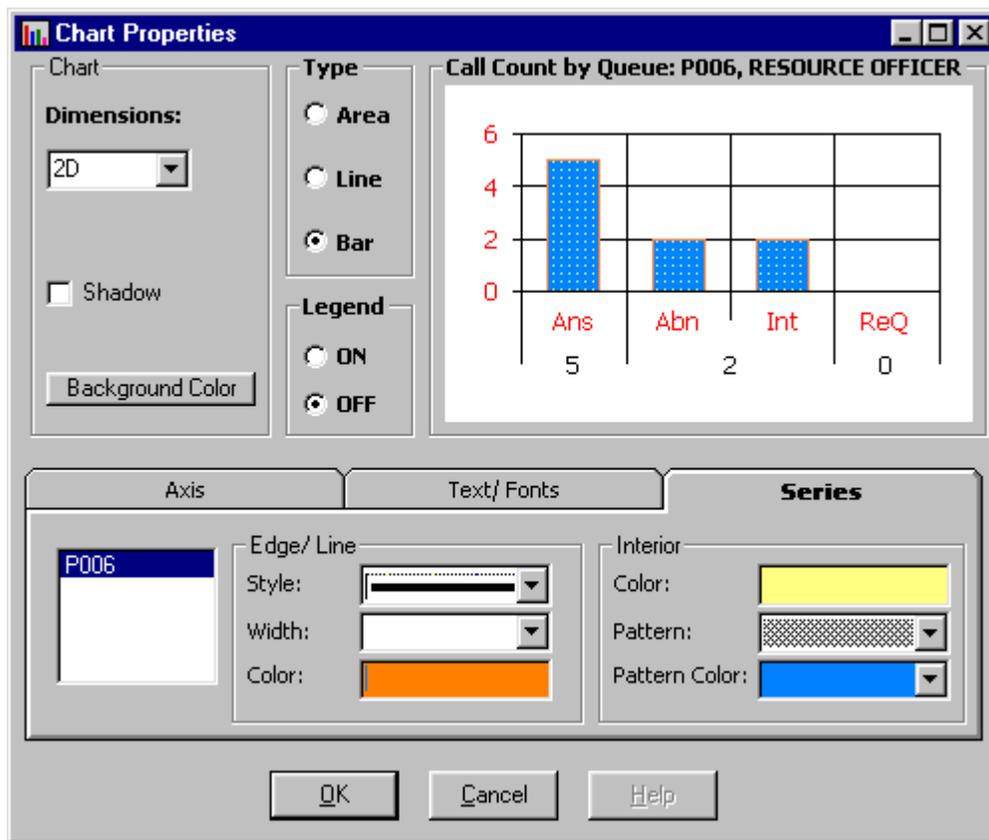
8. Specify the style, width, and color of the border for the area, line, or bar chart selected.
9. Specify the color, pattern, and pattern color of the chart.
10. Click **OK** to apply the changes to the Call Count by Queue chart for the active queue.
11. Repeat steps 1 to 10 to define display characteristics for the other charts.

Defining performance thresholds

SuperAdvisor displays statistics in color-coded grid cells on your desktop. The grid cells and statistics change color when performance changes to keep you informed of the service provided to callers.

NOTE: If you have more than one Agent/Employee State by Position or Agent/Employee State by Time grid displayed, any changes you make to the ACD variable threshold programming or grid styles effect all open Agent/Employee State by Position or Agent/Employee State by Time monitors.

When performance thresholds are not being met, SuperAdvisor appears on top of all open desktop applications and "beeps". You can optionally select an alternate .wav file to play.

To define performance thresholds and corresponding colors:

1. Select the **Agent State by Position**, **Employee State by Position**, **Agent State by Time**, or **Employee State by Time** monitor.
2. Right-click the grid and click **Properties**.
3. Click the **Alarm** tab.
   See Figure 6-21.

Figure 6-21 Alarm tab
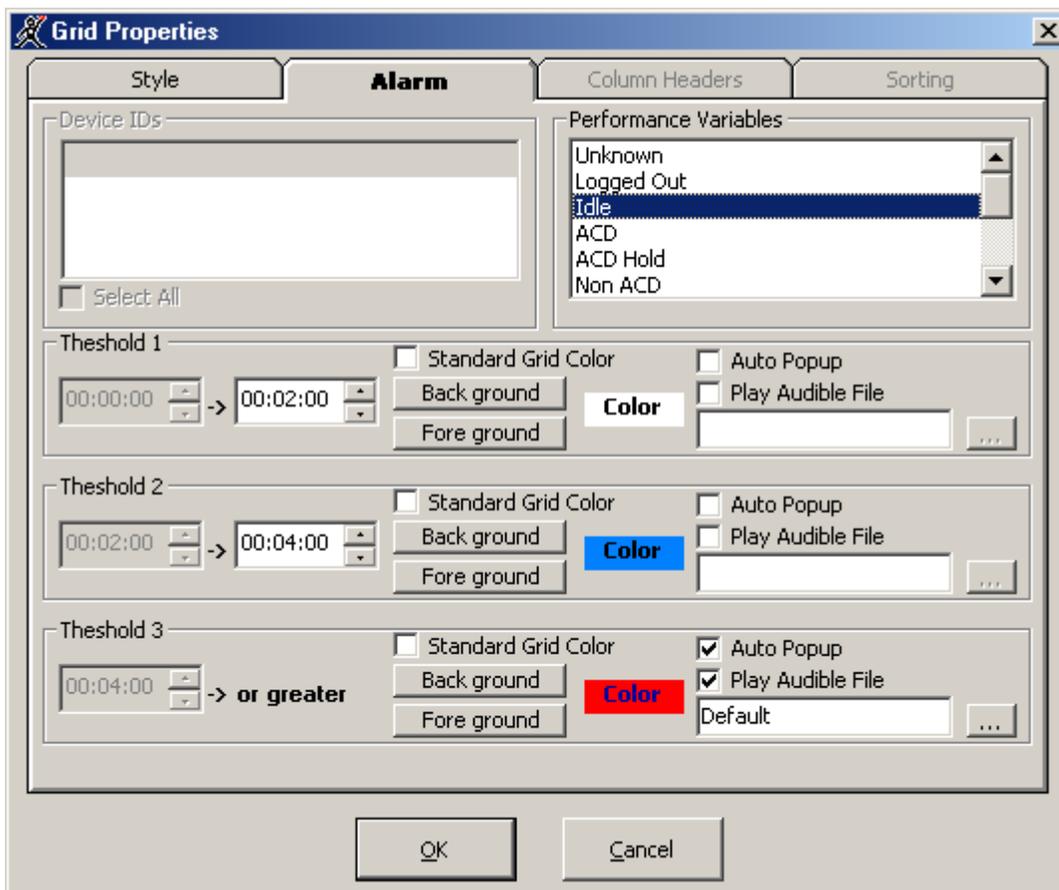
4. In the **Performance Variables** list, click a variable.

5. Under **Threshold 1**, select range values for the statistic.
6. Click **Background** and **Foreground** and specify alarm threshold colors for Threshold 1.
7. Optionally select the **Auto Popup** check box to display SuperAdvisor on top of all other applications when the threshold conditions are satisfied.
8. Optionally select the **Play Audible File** check box to have SuperAdvisor beep when the threshold conditions are satisfied.
9. Repeat steps 5 to 8 to define parameters for Threshold 2 and Threshold 3.
10. Repeat steps 4 to 8 to define thresholds for other performance variables.
11. Click **OK**.

Consider the threshold programming in the preceding figure. When an agent has been in the Idle state for zero to two minutes the grid cell housing the agent remains white. When an agent has been in the Idle state for two to four minutes the grid cell turns blue. When an agent has been in the Idle state for more than four minutes the grid cell turns red and the text in the grid cell turns navy blue. In addition, SuperAdvisor appears on top of all open desktop applications and beeps.

You can define performance thresholds for individual or multiple queues on the Agent Shift, Queue Now, Queue Group Now, and Queue by Period monitors.

To define performance thresholds and corresponding colors:

1. Select the **Agent Shift**, **Queue by Period**, or **Queue Now** monitor.
2. Right-click the display and click **Properties**.
3. Click the **Alarm** tab.
   Figure 6-22 appears.

Figure 6-22 Alarm tab
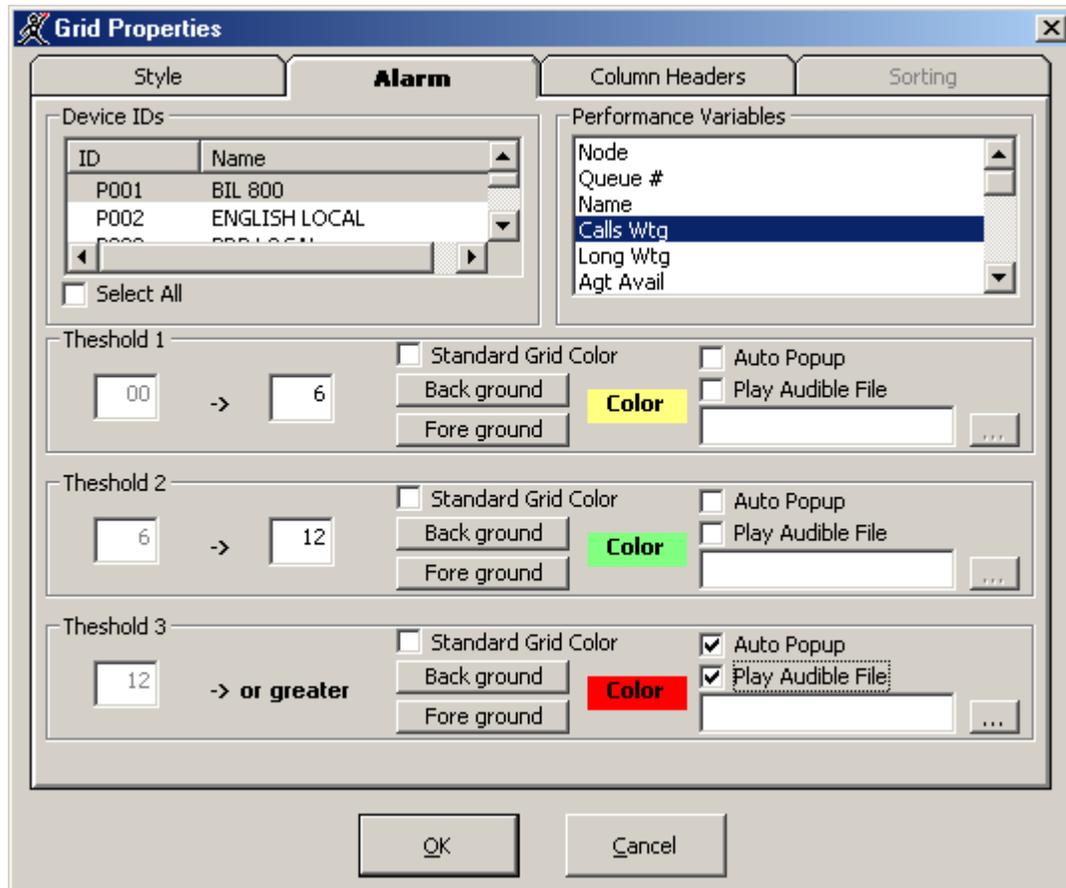
> **NOTE:** You can select the Select All check box to apply threshold settings for a performance variable across all available queues. If you select the Standard Grid Color check box the background color turns white for the active performance variable.

4. In the **Device IDs** list, select one or more queues/agents or select the **Select All** check box to select all queues/agents.
5. In the **Performance Variables** list, click a variable.
6. Under **Threshold 1**, select range values for the statistic.
7. Click **Background** and **Foreground** and specify alarm threshold colors for Threshold 1.
8. Optionally select the **Auto Popup** check box to display SuperAdvisor on top of all other applications when the threshold conditions are satisfied.
9. Optionally select the **Play Audible File** check box to have SuperAdvisor beep when the threshold conditions are satisfied.
10. Repeat steps 6 to 9 to define parameters for Threshold 2 and Threshold 3.
11. Repeat steps 4 to 9 to define thresholds for other performance variables.
12. Click **OK**.

Consider the threshold programming in the preceding Figure. When zero to six callers are waiting in Queue P501 the grid cell housing the Calls Waiting statistic is yellow. When seven to 12 callers are waiting in Queue 501 the grid cell turns green. When 13 or more callers are waiting in Queue P501 the grid cell turns red. In addition, SuperAdvisor appears on top of all open desktop applications and plays an audible alarm.

Creating profiles

On the SuperAdvisor main screen, you can create profiles to save threshold settings and display characteristics you define for monitors. The Save button saves all open monitors under one profile name.

You can now save all profiles in one folder so that all agents can access them.

NOTE: You must save your open monitors to a profile before you select a different 6110 CCM application, such as YourSite, or Report Inbox, or your programming in SuperAdvisor will be lost.

To save monitors currently displayed in SuperAdvisor:

1. Click **Save**.
2. After **Save in**, select where to save the profile.
3. Type a profile name and click **OK**.
   SuperAdvisor saves the profile.

To clear monitors currently displayed:

1. On the Internet Explorer menu, click **Refresh**.
   SuperAdvisor closes all monitors.

Loading profiles

The Load button loads existing profiles. You can now browse to locate the profiles you want to load.

1. Click **Load**.
   The Browse, Open, or Create a Profile window appears. (See Figure 6-23.)
2. Click **Browse**.
3. After **Look in**, locate your profile. It is an .saf file.
4. Select the profile from the list box and click **Open**.

Figure 6-23 Browse, Open, or Create a Profile

Chatting online in SuperAdvisor

You can communicate essential information to one or more agents or supervisors quickly and securely with the SuperAdvisor ChatLine. You can broadcast service alerts, coach agents, and send timely messages, such as asking an agent to delay going on break when it is busy.

NOTE: You must log on to the SuperAdvisor chat module in order to send and receive online messages. When you receive a message, SuperAdvisor displays it immediately on top of all open windows.

To chat online with agents or supervisors:

1. Right-click the SuperAdvisor main screen (or any open monitor) and click **Chat**. Figure 6-24 appears.
2. Type a message in the text window and click **Send**.

Figure 6-24 SuperAdvisor ChatLine
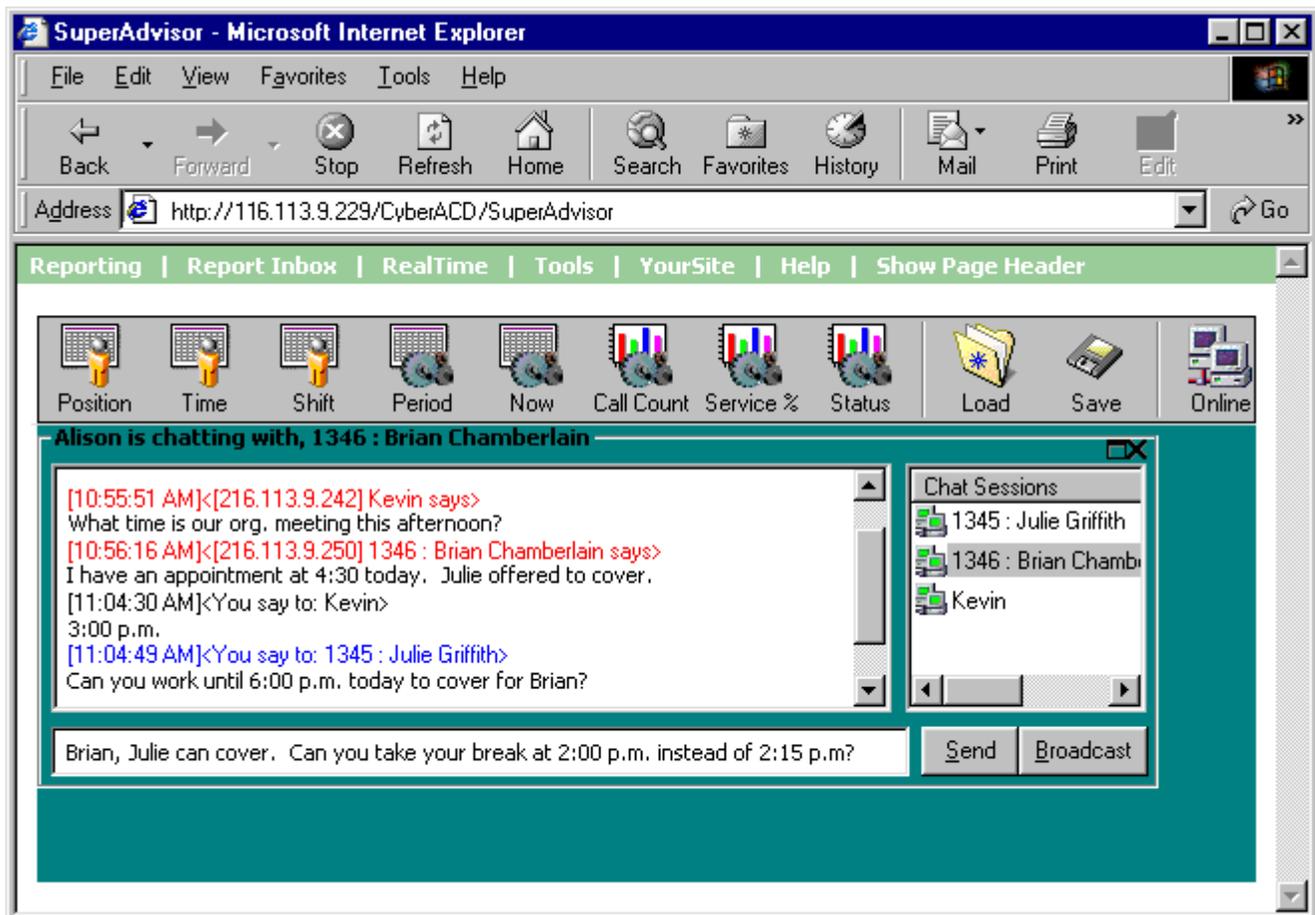
> The Device ID list dialog box appears.
> 3. Select one or more agent groups, agents, or supervisors to send the message to and click **OK**.

The agents or supervisors you selected appear in the Chat Sessions window. The Chat Sessions window lists the agent ID and name of each agent you selected. Supervisors are identified by name only.

NOTE: On the agent grids, if you right-click an agent's cell and click Chat the agent appears in the Chat Sessions window automatically.

Blue text appears in the chat window to confirm SuperAdvisor sent the message. The recipient's response to your message appears in the chat window below a red header.

To send a subsequent message to agents or supervisors:

1. Right-click the **Chat Sessions** window and click **Add Chat Sessions**.
2. Select one or more agent groups, agents, or supervisors to send the message to and click **OK**.
3. Type a message in the text window and click **Send**.

Alternatively, you can type a message, click Broadcast, select a recipient, and click OK to send a subsequent message to agents or supervisors.

To reply to a message, type a message and press Enter. ChatLine sends your response to the person who most recently sent you a message (the person listed at the bottom of your chat window). To reply to a previous message, select the individual in the Chat Sessions window, type a message, and click Send.

NOTE: If the agent or supervisor is logged out at the time you send the message, ChatLine marks the agent's or supervisor's icon (in the Chat Sessions window) with a red *X*. If you send a message to an agent who does not have AgentAdvisor open, ChatLine marks the agent's icon with a red *X*.

AgentAdvisor

Starting with 6110 CCM version 2.8, security now demands a password to access AgentAdvisor. See "Security" on page 91 for more details.

The AgentAdvisor application provides real-time statistics for the SX-2000 and SX-200 with real-time systems. It displays statistics in color-coded sections on the agent's desktop. The display keeps agents informed of significant changes in the service provided to callers.

NOTE: When you minimize AgentAdvisor a green AgentAdvisor icon appears on your system tray. You double-click the icon to restore AgentAdvisor.

Installing AgentAdvisor

On agent computers that have Internet Explorer 6.0 installed, to install AgentAdvisor:

1. Start Internet Explorer 6.0 and browse to the 6110 CCM Web application.
2. Log on to the 6110 CCM Enterprise Server using your 6110 CCM user name and password.
3. On the 6110 CCM user interface, click **Help**=>**Client Download** and click **6110 CCM Agent Desktop** to run the AgentAdvisor Setup.
   Leave the Employee field blank if you do not know the agent's 6110 CCM employee number.
4. Click **Start**=>**Programs**=>**prairieFyre Software Inc**=>**6110 CCM Agent Desktop** to open the AgentAdvisor application.

On agent computers that have a browser other than Internet Explorer 6.0 installed, to install AgentAdvisor:

1. Browse to the 6110 CCM Web application.
2. On the 6110 CCM user interface, click **Software Download**.
3. Click **6110 CCM Agent Desktop** to run the AgentAdvisor Setup.
   Leave the Employee field blank if you do not know the agent's 6110 CCM employee number.
4. Click **Start**=>**Programs**=>**prairieFyre Software Inc**=>**6110 CCM Agent Desktop** to open the AgentAdvisor application.

On agent computers that do not have a browser installed, to install AgentAdvisor:

1. In the **OtherWebDownloads** folder of the 6110 CCM Installation CD, click the **6110 CCMAgentDesktop.exe** file or click the **6110 CCMAgentAdvisor.exe** file (if you have 6110 CCM version 2.5 or less) to run the AgentAdvisor Setup.
   Leave the Employee field blank if you do not know the agent's 6110 CCM employee number.
2. Click **Start**=>**Programs**=>**prairieFyre Software Inc**=>**6110 CCM Agent Desktop** to open the AgentAdvisor application.

AgentAdvisor main screen

AgentAdvisor consists of the Agent State by Position, Employee State by Position, My Shift, and Queue Now monitors.

Grid properties

When you open a monitor in AgentAdvisor and right-click the grid, the following menu items appear.

Add Device IDs

The Add Device IDs command specifies devices or device groups to monitor. If you add one agent, the agent is placed in the current cell. If you add multiple agents, they are added to the bottom of the grid.

Remove Device IDs

The Remove Device IDs command removes one or more devices or device groups from the current grid.

Grid Dimensions

On the Agent State by Position grid, the Grid Dimensions command adds or deletes columns or rows. It deletes them from the lower right side of the grid.

Size Grid to Frame

The Size Grid to Frame command resizes a grid re-distributes the grid cells equally across the grid and auto-fits the grid to the frame.

Sort Grid by State

On the Agent State by Position grid, the Sort Grid by State command sorts agents by state and time in state. SuperAdvisor displays the agents across the grid in the following order:
- On ACD agents
- ACD Hold agents
- Wrap Up agents
- Idle agents
- On Non ACD agents
- Non ACD Hold agents
- Outbnd agents
- Outbnd Hold agents
- Make Busy agents
- Do Not Disturb agents
- Log Off agents
- Unknown agents

Properties

The Properties menu specifies grid display characteristics and performance thresholds for queues and agents.

Caption

Clearing the Caption command hides the title bar. If you hide the title bar, you can move the display by holding down the shift key, clicking the grid, and performing a drag-and-drop operation.

Always on Top

The Always on Top option displays the active monitor on top of all other applications.

Specify IP Address upon Startup

The Specify IP Address upon Startup command omits the login verification process.

Connection Status

The Connection Status item lists your server IP address and server port number.

Help

The Help menu item provides online Help on the current application.

Chat

The Chat command sends an online message to one or more supervisors.

Save Profile

The Save Profile command saves profiles you create in AgentAdvisor for threshold settings and display characteristics you define for monitors.

Exit

The Exit command closes the application.

NOTE: You can change the height and width of grids and charts in SuperAdvisor by left-clicking the lower right corner of the display and performing a drag-and-drop operation. You can rearrange grid cells by left-clicking a cell, and performing a drag-and-drop operation.

AgentAdvisor monitors

The following section describes the monitors provided by the AgentAdvisor application.

Agent State by Position and Employee State by Position grids

The Agent State by Position and Employee State by Position grids provide real-time agent information. They display the agent state, agent name, agent ID, extension number (or queue number for On ACD and on ACD Hold agents), and time in state for each agent, as illustrated in Figure 6-25.

You can change the height and width of a grid in AgentAdvisor by left-clicking the lower right corner of the display and performing a drag-and-drop operation. You can rearrange grid cells on the Agent and Employee State by Position grids by left-clicking a cell and performing a drag-and-drop operation.

Figure 6-25 Agent State by Position grid

If you have agents who are cross trained to answer calls for different departments (and log in and out of various queues) the telephone system requires you assign the agents multiple IDs. You use the Employee State by Time grid to view the activities of agents with multiple agent IDs. (See SuperAdvisor: *Agent State by Position and Employee State by Position grids*) for more information on viewing agents with multiple agent IDs.)

Table 7-6 lists the agent states provided.

Table 6-6   Agent states

	Term	Meaning
	On ACD	an agent on an ACD call
	ACD Hold	an agent who has placed an ACD call on hold
	Idle	an agent logged on and waiting to receive a call
	On Non ACD	an agent involved in an incoming non-ACD call or agent originated call
	Non ACD Hold	an agent who has placed a non-ACD call on hold
	OutBnd	an agent on an outgoing call
	OutBnd Hold	an agent who has placed an outgoing call on hold
	Do Not Disturb	an agent who has activated Do Not Disturb and is not available to receive any ACD or non-ACD calls
	Make Busy	an agent who is not available to receive ACD calls but can receive calls dialed directly to his or her extension
	Wrap Up	an agent completing paperwork who is unavailable to receive calls
	Unknown	an agent who has not generated any activity since 6110 CCM was started
	Log Off	an agent not currently logged on to the ACD system

Queue Now grid

The Queue Now grid displays the following statistics across queues: Calls Wtg, Long Wtg, Agt Avail, Offr'd, Ans, Abn, Inter Flow, ReQ, AnsBy 1-4 %, Avg TT Ans, Avg TT Abn, Total Talk, Avg Talk, Svc Lvl %, Ans %, Total Q Unavail, and Current Q Unavail. Figure 6-26 illustrates the Queue Now grid.

NOTE: AgentAdvisor derives the Calls Wtg, Long Wtg, and Agts Avail statistics from the ACD stream. If the telephone system has not updated 6110 CCM with ACD real-time statistics in the last 90 seconds, question marks appear in place of these statistics.

Figure 6-26   Queue Now grid

You can rearrange columns on the Queue Now grid. You click a column header to select a column, release the mouse button, click the column header again and move the column to another place on the grid using a drag-and-drop operation. In addition, you can specify which columns of queue statistics are displayed.

NOTE: When an agent receives an ACD call and fails to pick up the call after X seconds or X rings, the telephone system places the agent in Make Busy. The telephone system requeues the call (places the call back in the same queue) and offers it to the next available agent.

Table 7-7 displays the real-time and over-the business-day Queue Now statistics.

Table 6-7   Queue Now statistics

Term	Meaning
Calls Wtg	the current number of callers queued up waiting for an agent to become available, including those listening to silence, music, or recorded announcements
Long Wtg	the current duration, in minutes and seconds, of the call waiting the longest in queue
Agt Avail	the current number of agents on ACD calls
Offr'd	the total number of calls offered to the queue for the day
Ans	the total number of calls answered by agents for the day
Abn	the total number of calls abandoned before being answered by an agent for the day
Interflow	the total number of calls interflowed for the day. Interflow is a mechanism that directs a queue delayed call to voice mail or to another answering point

Table 6-7   Queue Now statistics

ReQ	the total number of calls requeued for the day
AnsBy1-4 %	a count of all calls answered by the first, second, third, and forth answer points
Avg TT Ans	the current average time callers wait before being answered by an agent
Avg TT Abn	the current average time callers wait before abandoning calls
Total Talk	the total talk time for the day
Avg Talk	the average talk time for the day
Svc Lvl %	the percentage of calls answered within your service level time value over the day
Ans %	the percentage of calls answered compared to the total number of calls offered to the ACD queue for the day
Total Q Unavail	the total number of times during the day callers dialed the queue and were rerouted because no agents were logged on to the queue or the queue was set to Unavailable See Path Unavailable Calls.
Current Q Unavail	This is the total number of callers that were rerouted after you set the queue to Unavailable. When you make the queue available again, this value resets to zero.

My Shift grid

The My Shift grid displays the following statistics across queues: Extn #, Log On, Log Off, Shift, ACD Time, Hold ACD Time, Non ACD Time, Hold Non ACD Time, Out Time, Hold Out Time, DND Time, MKB Time, Wrap-Up Time, DND Count, MKB Count, ACD Count, Short ACD Count, Hold ACD Count, Non ACD Count, Hold Non ACD Count, Out Count, Hold Out Count. The My Shift grid provides running totals of statistics for an agent for the day. It displays real-time shift statistics for the agent across the agent's IDs, as illustrated in Figure 6-27.

Figure 6-27 My Shift grid

You can rearrange columns on the My Shift grid. You click a column header to select a column, release the mouse button, click the column header again and move the column to another place on the grid using a drag-and-drop operation. In addition, you can specify which columns of queue statistics are displayed.

Table 7-8 displays My Shift statistics.

Table 6-8   My Shift statistics

Term	Meaning
Extn #	the extension number of the phone the agent uses
Log On	the time the agent logged on
Log Off	the time of the agent's last ACD event on the queue
Shift	the total shift time for the agent
ACD Time	the total time the agent spent on ACD calls
Hold ACD Time	the total time for ACD calls put on hold
Non ACD Time	the total time for non-ACD calls put on hold
Hold Non ACD Time	the total time for non-ACD calls put on hold
Out Time	the total time the agent spent on outbound calls
Hold Out Time	the total time for outbound calls put on hold
DND Time	the total time the agent spent in the do not disturb state
MKB Time	the total time the agent spent in the make busy state
Wrap-Up Time	the total time the agent spent in the wrap up state
DND Count	the number of times the agent entered the do not disturb state
MKB Count	the number of times the agent entered the make busy state
ACD Count	the total number of ACD calls answered by the agent
Short ACD Count	the total number of ACD calls the agent answered that lasted less than 20 seconds
Hold ACD Count	the number of times the agent put ACD calls on hold
Non ACD Count	the total number of non-ACD calls answered by the agent
Hold Non ACD Count	the number of times the agent put non-ACD calls on hold
Out Count	the total number of outgoing calls the agent made
Hold Out Count	the number of times the agent put outgoing calls on hold

Viewing real-time statistics

NOTE: In the YourSite Database, an agent must be a member of an agent group, and must be associated to an employee ID in order for you to view the agent in AgentAdvisor. An employee must be a member of an employee group in order for you to view the employee in AgentAdvisor. A queue must be a member of a queue group and have at least one agent group associated to it in order for you to view the queue in AgentAdvisor. This is to support real-time and report permissions: you define permissions for database groups.

To view real-time statistics:

1. Click **Start**=>**Programs**=>**prairieFyre Software Inc**=>**6110 CCM AgentAdvisor**.
   The Server Connection window appears. (See Figure 6-28.)
2. Verify your Server IP Address and Port and click **OK**.

Figure 6-28 Server Connection

The Login window appears. (See Figure 6-29.)
3. Log on to AgentAdvisor using your employee ID number, and click **OK**.

Figure 6-29 Login
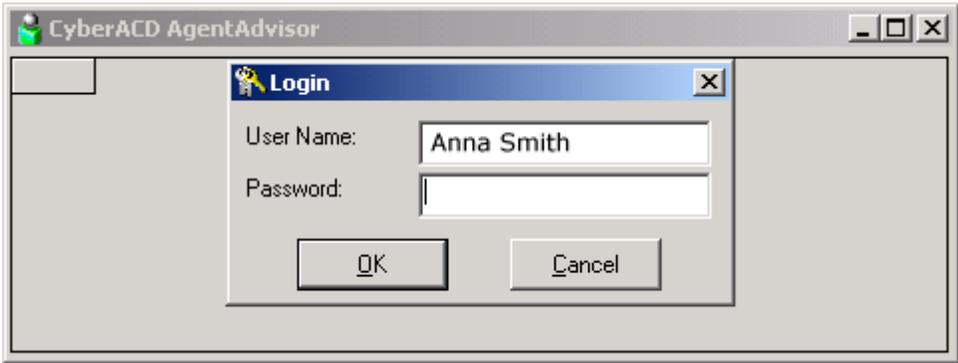
4. Log on to AgentAdvisor using your employee ID number, and click **OK**.
   Figure 6-30 appears. You enter profile names to save display parameters and alarm characteristics you define for agents and queues. The preceding Figure displays the Customer Service Agents profile.

Figure 6-30 Profiles dialog

5. Select a profile and click **OK**, or click **New Profile** (and enter the profile name later).
   Figure 6-31 appears.
6. Select the **Agent State by Position** monitor and click **OK**.

Figure 6-31 Monitor selection

Figure 6-32 appears.

7. Under **Agent Groups** select agent groups to monitor. Alternatively, under **Agent Group Members** select agents to monitor.

Figure 6-32 Device ID list
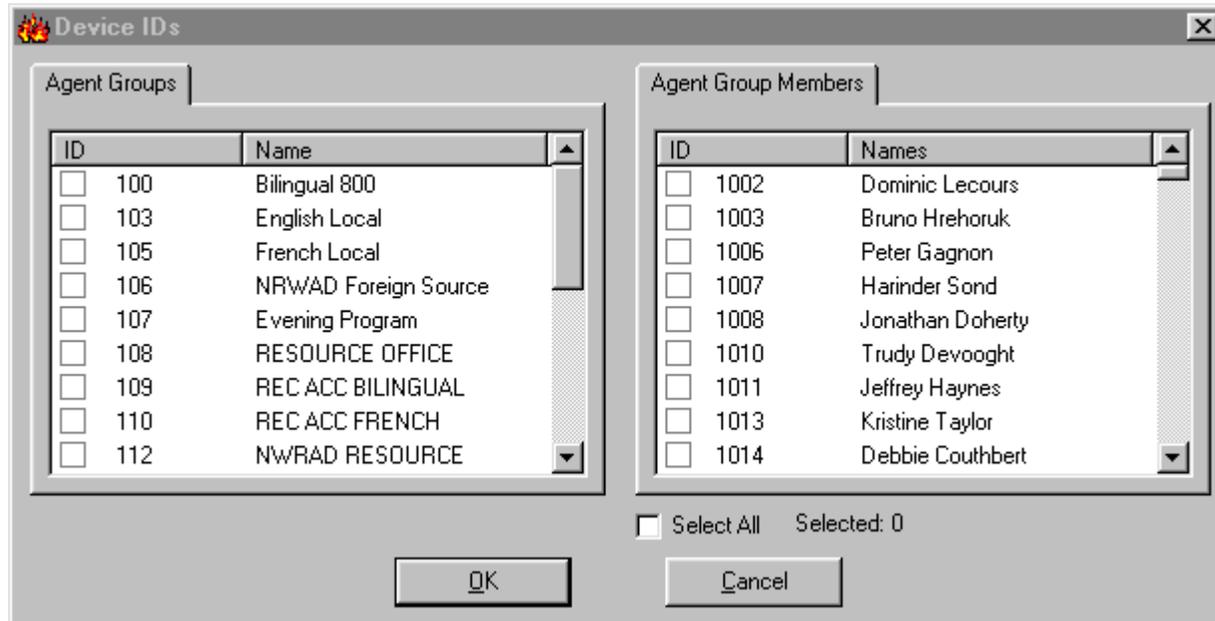
To sorting devices alphabetically

On the Device IDs dialog box you can sort devices alphabetically, or by device ID, in ascending or descending order.

1. Click the **ID** or **Name** header for a device or device group list to sort it by ID or name.
2. Click **OK**.
   AgentAdvisor displays the devices across the grid in the order you specified.

To start a second instance of AgentAdvisor:

1. Log on to AgentAdvisor and start a new session.
2. Select the **Queue Now** monitor and click **OK**.
3. Repeat steps 5 to 7 to display the monitor.

Adding, rearranging, resizing, and sorting devices

You can add, rearrange, resize, and sort devices on grids.

To add additional agents to the Agent State by Position grid:

1. Right-click the **Agent State by Position** grid and click **Add Device IDs**.
2. Under **Agent Group Members**, select additional agents and click **OK**.
   SuperAdvisor adds the agents to the bottom of the Agent State by Position grid.

   NOTE: If you right-click a cell and add a single agent to the grid, the new agent replaces the agent in the current cell.

To rearrange and resize agent cells on the Agent State by Position grid:

1. Left-click an agent's cell and perform a drag-and-drop operation to move it to a different position on the grid.
2. Optionally click the column header above any column of agent state icons and drag the right edge of the header towards the left to make the column (and agent state icons) proportionately smaller. This resizes all agent state icons on the grid.

To enlarge the grid frame:
- Left-click the lower right corner of the display and perform a drag-and-drop operation.

To auto-fit the grid to the frame:
- Right-click the grid and click **Size Grid to Frame**.
  The grid cells change size to fit the new grid dimensions.

To sort agents on the Agent State by Position grid:
- Right-click the grid and click **Sort Grid by State**.

SuperAdvisor sorts the agents by state and time in state. SuperAdvisor displays the agents across the grid in the following order:
- On ACD agents
- ACD Hold agents
- Wrap Up agents
- Idle agents
- On Non ACD agents
- Non ACD Hold agents
- Outbnd agents
- Outbnd Hold agents
- Make Busy agents
- Do Not Disturb agents
- Log Off agents
- Unknown agents

Hiding grid fields

On on all queue grids you can optionally hide the grid fields (columns) you are not interested in viewing.

For example, to hide grid columns on the Queue Now grid:

1. Right-click the **Queue Now** grid and click **Properties**.
2. Click the **Column Headers** tab.
3. Under **Show/Hide Column Headers**, clear any check boxes that correspond to statistics you want to hide from view on the grid.
4. Click **OK**.
   AgentAdvisor hides the grid columns.

Defining grid styles

You can customize the appearance of grid elements, such as column and row headers.

1. Select a monitor.
2. Right-click the display and click **Properties**.
3. Click the **Style** tab.
   Figure 6-33 appears.
4. In the **Grid Elements** list, click a grid element.
5. Click **Background**, **Font Type**, and **Font Color** and specify a background color, font type, and font color for the grid element.
6. Select alignment and grid options for the grid element.
7. Click **OK** to save style changes for the grid element.
8. Repeat steps 4 to 7 for other grid elements.
9. Click **OK**.

NOTE: You can apply styles across multiple grid elements by pressing Shift or Control.

Figure 6-33 Style tab
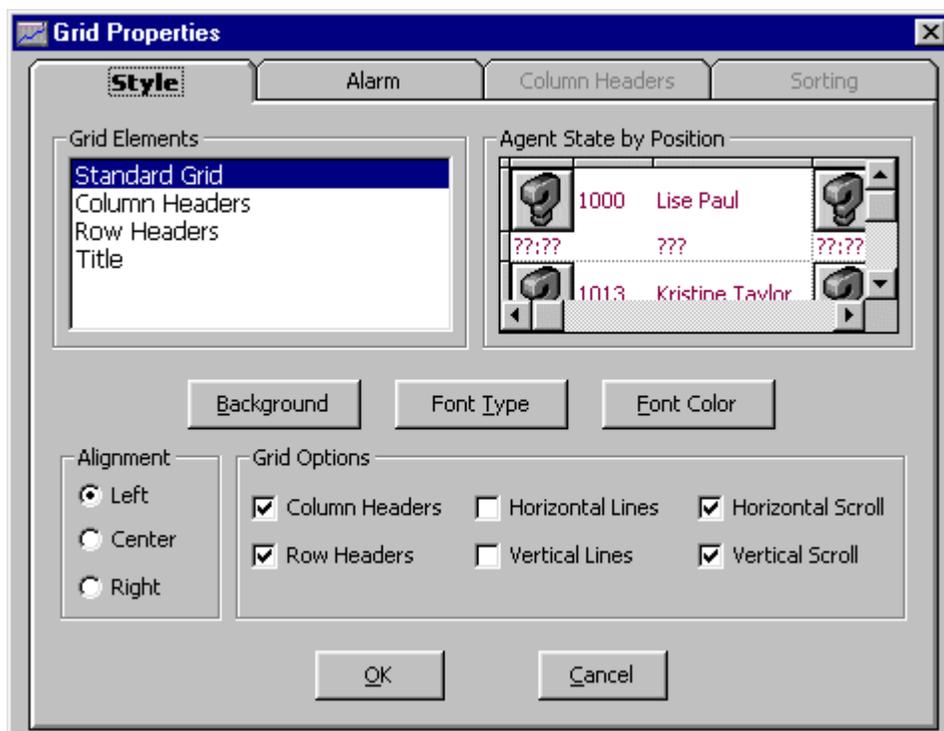
Defining performance thresholds

AgentAdvisor displays queue and agent statistics. The grid cells and statistics change color when performance changes to keep you informed of the service provided to callers.

To define performance thresholds and corresponding colors:

1. Open the **Agent State by Position** or **Employee State by Position** monitor.
2. Right-click the grid and click **Properties**.
3. Click the **Alarm** tab.
   Figure 6-34 appears.
4. In the **Performance Variables** list, click a variable.
5. Under **Threshold 1**, select range values for the statistic.
6. Click **Background** and **Foreground** and specify alarm threshold colors for Threshold 1.
7. Optionally select the **Auto Popup** check box to display AgentAdvisor on top of all other applications when the threshold conditions are satisfied.
8. Optionally select the **Play Audible File** check box to have AgentAdvisor beep when the threshold conditions are satisfied.
9. Repeat steps 5 to 8 to define parameters for Threshold 2 and Threshold 3.
10. Repeat steps 4 to 8 to define thresholds for other performance variables.
11. Click **OK**.

Figure 6-34   Alarm tab
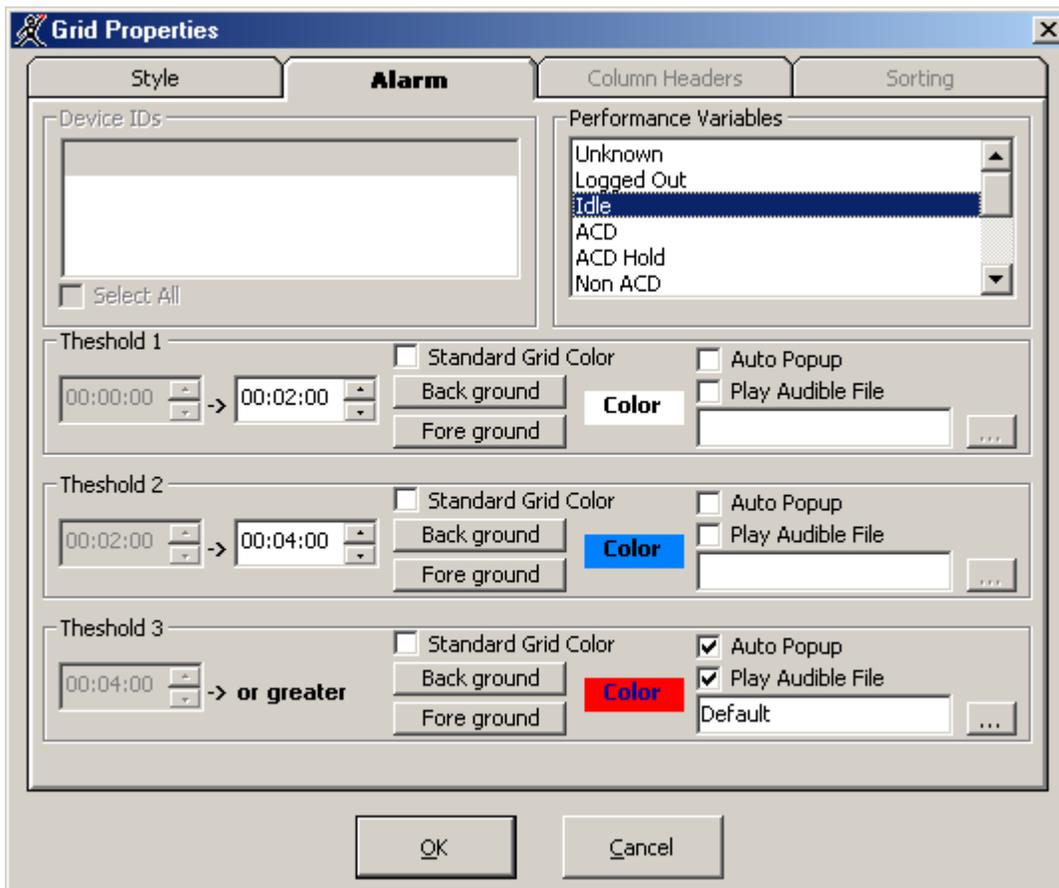
NOTE: If you select the Standard Grid Color check box, the background color turns white.

Consider the threshold programming in the preceding Figure. When an agent has been in the Idle state for zero to two minutes the grid cell housing the agent remains white. When an agent has been in the Idle state for two to four minutes the grid cell turns blue. When an agent has been in the Idle state for more than four minutes the grid cell turns red and the text in the grid cell turns navy blue. In addition, AgentAdvisor appears on top of all open desktop applications and beeps.

You can define threshold settings for performance variables for individual or multiple queues on the Queue Now monitor.

To define performance thresholds and corresponding colors:

1. Open the **Queue Now** monitor.
2. Right-click the grid and click **Properties**.
3. Click the **Alarm** tab.
   Figure 6-35 appears.

Figure 6-35 Alarm tab
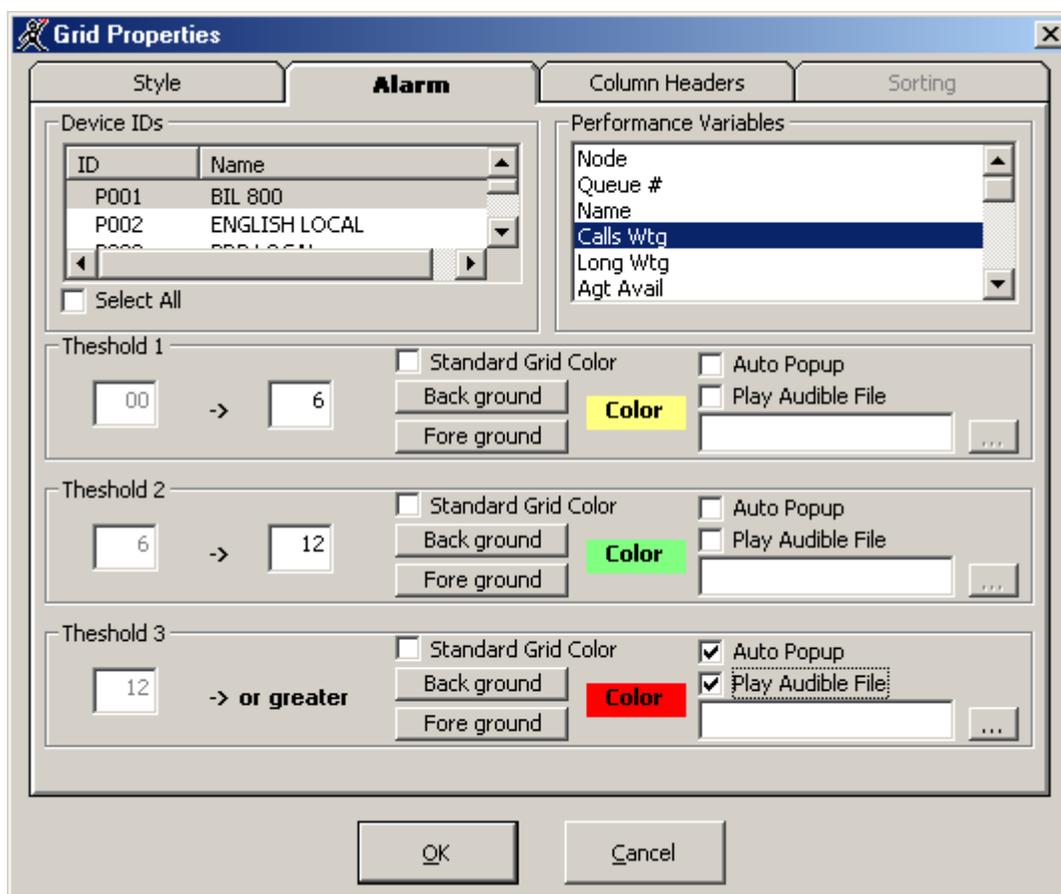
> **NOTE:** You can select Select All, to apply threshold settings for a performance variable across all available queues. If you select the Standard Grid Color check box, the background color turns white for the active performance variable.

4. In the **Device IDs** list, select one or more queues or select the **Select All** check box to select all queues.
5. In the **Performance Variables** list, click a variable.
6. Under **Threshold 1**, select range values for the statistic.
7. Click **Background** and **Foreground** and specify alarm threshold colors for Threshold 1.
8. Optionally select the **Auto Popup** check box to display AgentAdvisor on top of all other applications when the threshold conditions are satisfied.
9. Optionally select the **Play Audible File** check box to have AgentAdvisor beep when the threshold conditions are satisfied.
10. Repeat steps 6 to 9 to define parameters for Threshold 2 and Threshold 3.
11. Repeat steps 4 to 9 to define thresholds for other performance variables.
12. Click **OK**.

Consider the threshold programming in the preceding Figure. When zero to six callers are waiting in Queue P501 the grid cell housing the Calls Waiting statistic is yellow. When seven to 12 callers are waiting in Queue 501 the grid cell turns green. When 13 or more callers are waiting in Queue P501 the grid cell turns red. In addition, AgentAdvisor appears on top of all open desktop applications and plays an audible alarm.

Creating profiles

In AgentAdvisor you can create profiles to save threshold settings and display characteristics you define for monitors.

You can now save all profiles in one folder so that all agents can access them.

NOTE: You must save your open monitors to a profile before you select a different 6110 CCM application, such as YourSite, or Report Inbox, or your programming in AgentAdvisor will be lost.

To save monitors currently displayed in AgentAdvisor:

1. Right-click the grid and click **Save Profile**.
2. After **Save in**, select where to save the profile.
3. Type a profile name and click **OK**.
   AgentAdvisor saves the profile.

Loading profiles

The Load button loads existing profiles. You can now browse to locate the profiles you want to load.

1. Click **Load**.
   The Browse, Open, or Create a Profile window appears. (See Figure 6-36.)
2. Click **Browse**.
3. After **Look in**, locate your profile. It is an .saf file.
4. Select the profile from the list box and click **Open**.

Figure 6-36 Browse, Open, or Create a Profile

Chatting online in AgentAdvisor

Agents can communicate essential information to supervisors quickly and securely with the AgentAdvisor ChatLine. Agents requiring help on calls can consult with supervisors online and provide immediate feedback to clients, without having to leave their seats.

NOTE: You must log on to AgentAdvisor in order to send and receive messages. When you receive a message, AgentAdvisor displays it immediately on top of all open windows.

To chat online with supervisors or agents:

1. Right-click a monitor and click **Chat**.
   Figure 6-37 appears.
2. Type a message and click **Send to**.
3. Select one or more supervisors or agents to send the message to and click **OK**.

Figure 6-37 AgentAdvisor ChatLine

Blue text appears in the chat window to confirm AgentAdvisor sent the message. The supervisor's or agent's response to the message appears in the chat window below a red header. To reply to a message, type a message and press Enter. ChatLine sends your response to the person who most recently sent you a message, that is, the person listed at the bottom of your chat window. To reply to a previous message, type in a message, click Send to, select a supervisor from the list, and click OK.

6115 CCM InterActive

Mitel Network 6115 Contact Center Management is a purchasable option that complements the SX-2000 and 3200/3300 ICP (Integrated Communications Platform) telephone systems. It is used in conjunction with SuperAdvisor and AgentAdvisor. Using 6115 CCM and SuperAdvisor, supervisors can control the availability of agents and ACD queues. They can log an agent out of one queue and into a busier queue, or place the agent in make busy or do not disturb. In addition, they can log a queue in and out, or place the queue in make busy or do not disturb. Using 6115 CCM and AgentAdvisor, agents can control their own availability by logging on and logging off and with make busy and do not disturb.

6115 CCM main screen

With SuperAdvisor, you can control the availability of agents and ACD queues on the Agent by Position, Employee by Position, and Queue Now grids. When you open the Queue Now monitor and right-click the grid, the menu illustrated in Figure 6-38 appears.

With AgentAdvisor, you can control the availability of yourself on the Agent by Position, Employee by Position, and Queue Now grids.

The Queue Control and Grid Control commands place a single agent, or all agents in do not disturb or make busy.

Figure 6-38 6115 CCM menu
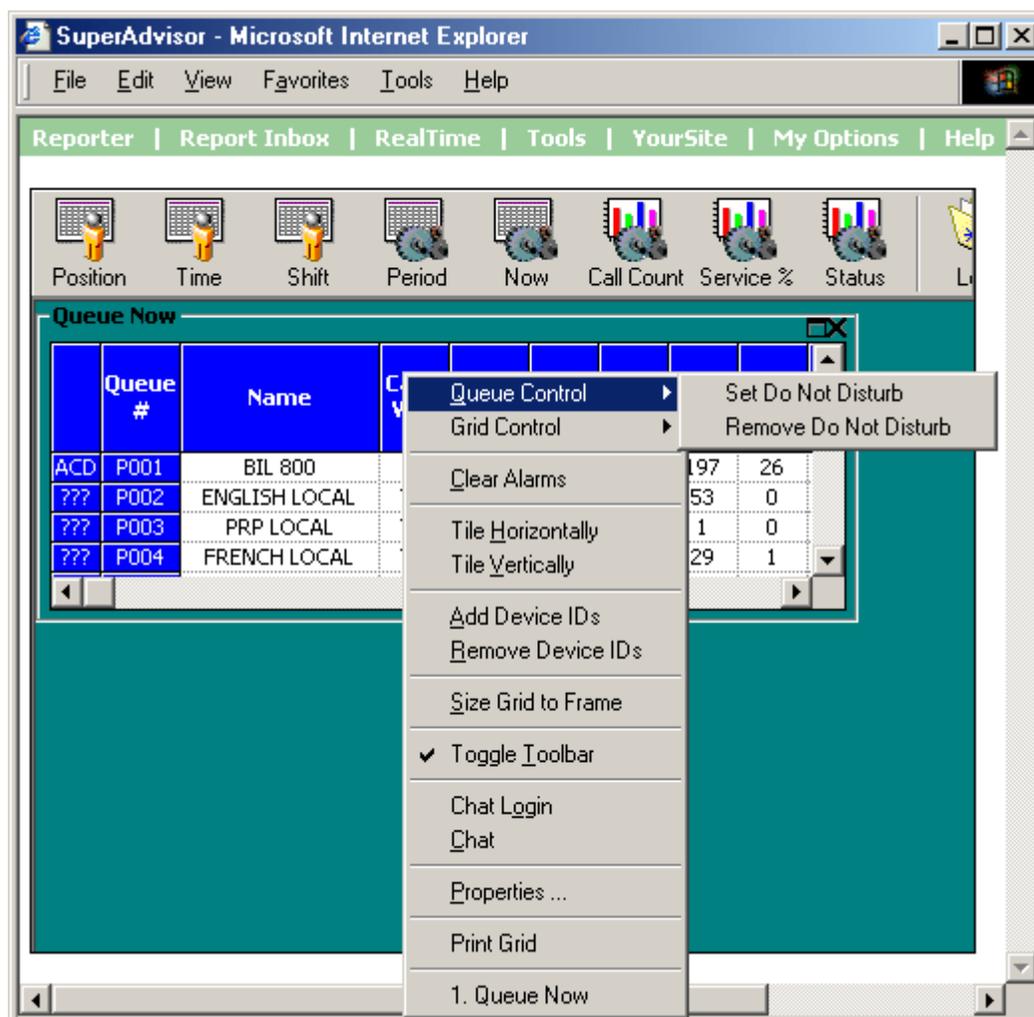
Configuring Make Busy Reason Codes

Every time an agent leaves his desk, he must set Make Busy. There are many reasons why an agent leaves his desk. Each of these reasons must be assigned a Make Busy Reason Code and added to YourSite before these reasons can be selected by the agent. For example, when an agent gets a coffee, takes his morning break, or takes his lunch, he uses the appropriate Make Busy Reason Code. (See Figure 6-39.) When an Agent Performance by Make Busy Code report is run, the report clearly indicates when the agent went on Make Busy, and why (which code the agent assigned each time). For example, in the following figure, John is setting Make Busy Reason Code 2: 1st Break.

Figure 6-39 Make Busy with Reason Code
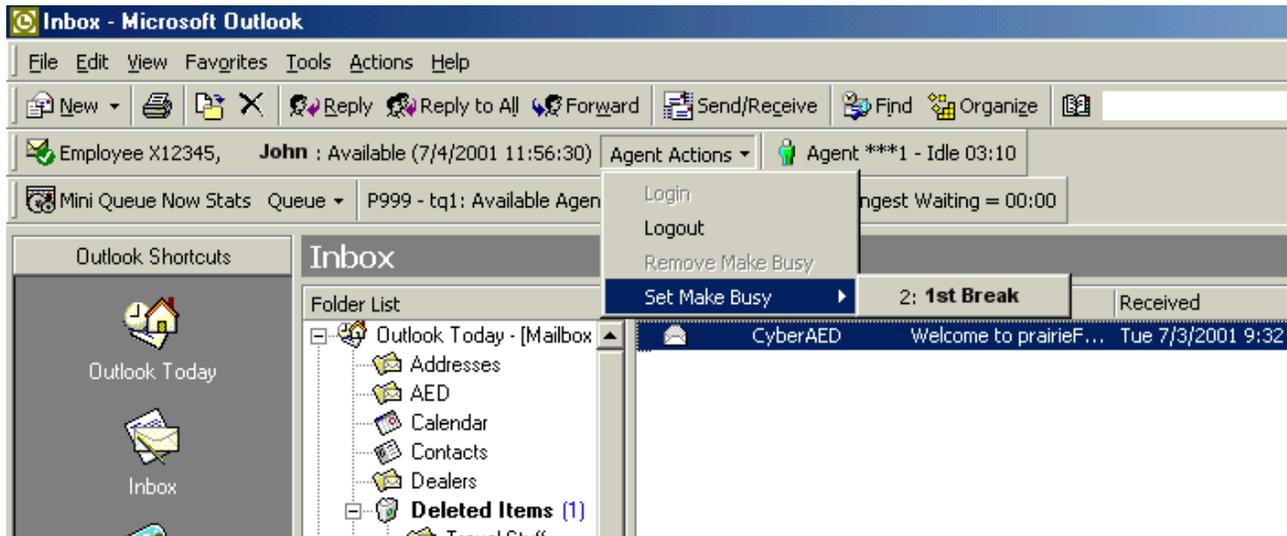
Adding a Make Busy Reason Code

1. Click the **Make Busy Reason Codes** tab.
2. Right-click the first Make Busy Code, and select **Add**.
   The Make Busy Reason Codes window appears. (See Figure 6-40.)
3. Under **Reporting**, type the Make Busy Code.
4. Under **Name**, type the name of the Make Busy Code.
5. Click **Add All**.

Figure 6-40 Add Make Busy Reason Codes window
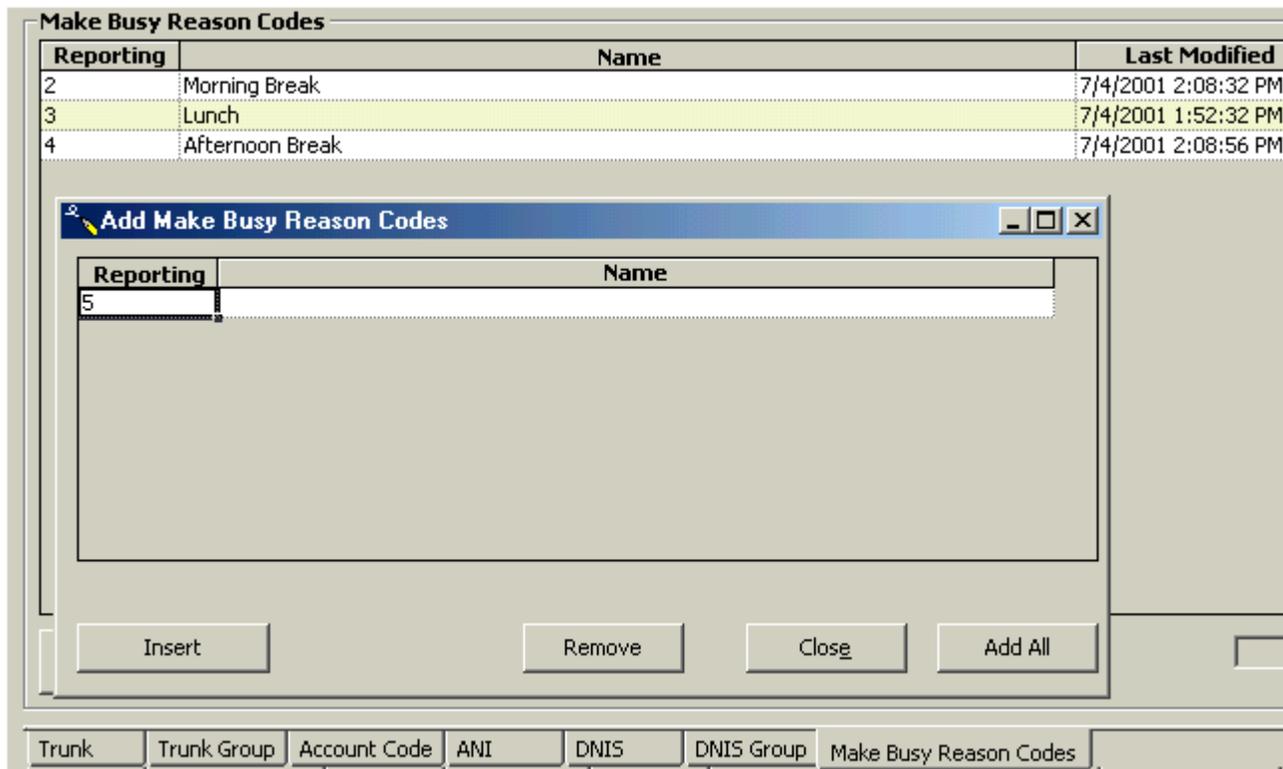
The Your Site Configuration window appears indicating the success or failure of the addition. (See Figure 6-41.)

6. Click **OK.**

Figure 6-41   Your Site Configuration window

Editing a Make Busy Reason Code

1. Click the **Make Busy Reason Code** tab.
2. Right-click the Make Busy Reason Codes, and select **Edit**.
3. Select the Make Busy Reason Code you want to edit.
4. Under **Reporting**, type the correct Make Busy Reason Code.
5. Under **Name**, type the correct name.
6. Press **Enter**.
7. Click **Update**.
   The Your Site Configuration window appears indicating the success or failure of the edition.
   Click **OK**.

Deleting a Make Busy Reason Code

1. Click the **Make Busy Reason Code** tab.
2. Right-click the Make Busy Reason Codes, and select **Delete**.
3. Select the Make Busy Reason Code you want to delete.
4. Click **Remove**.
   The Your Site Configuration window appears.
5. Click **Yes**.
   The Your Site Configuration window appears indicating the success or failure of the deletion.
6. Click **OK**.
7. Click **Close**.

Agent controls

With SuperAdvisor, using agent controls, you can log on and log off agents, set and remove agents from make busy with reason, and set and remove agents from do not disturb from the Agent State by Position grid or the Employee State by Position grid.

With AgentAdvisor, using agent controls, you can log yourself on or off, set or remove yourself from make busy with reason, and set or remove yourself from do not disturb from the Agent State by Position grid or the Employee State by Position grid.

Logging on

SuperAdvisor
To log on an agent:

1. Click the **Position** icon and click **Agent by Position or Employee by Position**.
2. Select agents or employees to monitor.
3. Click **OK**.
   SuperAdvisor displays the devices across the grid in the order you specified.
4. Right-click the cell of an agent who is logged out and click **Agent Control**=>**Log IN**.
5. Select one of the agent's IDs.
   The first time you log in an agent, you must specify the agent's extension number so 6115 CCM knows to which phone the agent is logged in.
6. Type the agent's extension number and click **OK**.
   SuperAdvisor logs in the agent.

AgentAdvisor
To log on:

1. Click the **Position** icon and click **Agent by Position or Employee by Position**.
2. Select agents or employees to monitor.
3. Click **OK**.
   AgentAdvisor displays the devices across the grid in the order you specified.
4. Right-click your cell and click **Agent Control**=>**Log IN**.
5. If you have multiple IDs, select one.
   The first time you log on, you must specify your extension number so 6115 CCM knows to which phone you are logged on.
6. Type your extension number and click **OK**.
   AgentAdvisor logs you on.

Logging off

Agents can have multiple agent IDs. In the YourSite Database agent IDs are associated to agent groups, and agent groups are associated to queues. When you log in an agent in SuperAdvisor, the agent ID you select for the agent determines the queue to which the agent logs in.

For example, Jeffrey Haynes has two Agent IDs: 1010 and 1011. They are associated to Queues P007 and P001 respectively. Figure 6-42 shows agent Haynes logged in to P007 using Agent ID 1010. To log agent Haynes out of P007 and in to P001, you right-click the grid, click Agent Control=>Log IN, and select 1011: Jeffrey Haynes from the list of available agent IDs.

Figure 6-42 Agents with multiple agent IDs

SuperAdvisor

To log off an agent:

- Right-click the cell of the agent and click **Agent Control**=>**Log OUT**.
  SuperAdvisor logs off the agent.

AgentAdvisor

To log off:

- Right-click your cell and click **Agent Control**=>**Log OUT**.
  AgentAdvisor logs you off.

Placing agents or yourself in make busy with reason, or do not disturb

NOTE: If you configure the Make Busy Reason Codes while you are logged on, you must click Notify RealTime Clients to update the Make Busy Reasons in SuperAdvisor or AgentAdvisor.

You must configure the Make Busy Reason Codes with YourSite before you can assign the Make Busy Reason.

SuperAdvisor

To place an agent in make busy or do not disturb:

- Right-click the cell of an agent who is logged in and click **Agent Control**=>**Set Make Busy**, then select the Make Busy reason code, or click **Agent Control**=>**Set Do Not Disturb**.
  SuperAdvisor places the agent in make busy or do not disturb.

AgentAdvisor

To place yourself in make busy or do not disturb:

- Right-click your cell and click **Agent Control**=>**Set Make Busy**, then select the Make Busy reason, or click **Agent Control**=>**Set Do Not Disturb**.
  AgentAdvisor places the agent in make busy or do not disturb.

Removing agents or yourself from make busy with reason, or do not disturb

SuperAdvisor

To remove an agent from make busy or do not disturb:

- Right-click the cell of an agent who is in make busy or do not disturb and click **Agent Control**=>**Remove Make Busy** or click **Agent Control**=>**Remove Do Not Disturb**.
  SuperAdvisor removes the agent from make busy or do not disturb.

AgentAdvisor

To remove yourself from make busy or do not disturb:

- Right-click your cell and click **Agent Control**=>**Remove Make Busy** or click **Agent Control**=>**Remove Do Not Disturb**.
  AgentAdvisor removes the agent from make busy or do not disturb.

Agent grid controls

With SuperAdvisor, using grid controls, you can log on or log off all agents on a grid, and set or remove all agents from make busy with reason, and set or remove agents from do not disturb.

With AgentAdvisor, using grid controls, you can log on or log off, and set or remove yourself from make busy with reason, and set or remove yourself from do not disturb for the My Shift and Agent by Position grids.

Logging off

You can log out agents on the Agent State by Position grid or the Employee State by Position grid.

SuperAdvisor
To log out all of the agents on a grid:
- Right-click the grid and click **Grid Control**=>**Log OUT**.
  SuperAdvisor logs out all of the agents on the grid.

AgentAdvisor
To log off a grid (My Shift or Agent by Position):
- Right-click the grid and click **Grid Control**=>**Log OUT**.
  AgentAdvisor logs you off the grid.

Placing all agents or yourself in make busy with reason, or do not disturb

NOTE: If you configure the Make Busy Reason Codes while you are logged on, you must click Notify RealTime Clients to update the Make Busy Reasons in SuperAdvisor or AgentAdvisor.

You must configure the Make Busy Reason Codes with YourSite before you can assign the Make Busy Reason.

SuperAdvisor
To place all of the agents on a grid in make busy or do not disturb:
- Right-click the grid and click **Grid Control=>Set Make Busy**, then select the Make Busy reason, or click **Grid Control=>Set Do Not Disturb**.
  SuperAdvisor places all of the logged in agents in make busy or do not disturb.

AgentAdvisor
To put yourself in make busy or do not disturb on a grid (My Shift or Agent by Position):

1. Right-click the grid and click **Grid Control**=>**Set Make Busy**, then select the Make Busy reason, or click **Grid Control**=>**Set Do Not Disturb**.

AgentAdvisor places you in make busy with reason, or do not disturb.

Removing all agents or yourself from make busy or do not disturb

SuperAdvisor

To remove all of the agents on a grid from make busy or do not disturb:

- Right-click the grid and click **Grid Control**=>**Remove Make Busy** or click **Grid Control**=>**Remove Do Not Disturb**.
  SuperAdvisor removes all of the agents from make busy or do not disturb.

AgentAdvisor

To remove yourself from make busy or do not disturb on a grid (My Shift or Agent by Position):

- Right-click the grid and click **Grid Control**=>**Remove Make Busy** or click **Grid Control**=>**Remove Do Not Disturb**.
  AgentAdvisor removes you from make busy or do not disturb.

Queue controls

With SuperAdvisor, using queue controls, you can set and remove queues from do not disturb on the Queue Now grid. Queue controls are not available to AgentAdvisor.

Placing queues in do not disturb

SuperAdvisor

To place a queue in do not disturb:

- Right-click the cell of an active queue and click **Queue Control**=>**Set Do Not Disturb**.
  SuperAdvisor places the queue in do not disturb.

Removing queues from do not disturb

SuperAdvisor

To remove a queue from do not disturb:

- Right-click the cell of a queue that is in do not disturb and click **Queue Control**=>**Remove Do Not Disturb**.
  SuperAdvisor removes the queue from do not disturb.

Queue grid controls

Using grid controls, you can set or remove all queues from do not disturb simultaneously. Queue controls are not available to AgentAdvisor.

Placing all queues in do not disturb

SuperAdvisor
To place all of the queues on a grid in do not disturb:

- Right-click the grid and click **Grid Control**=>**Set Do Not Disturb**.
  SuperAdvisor places all of the active queues in do not disturb.

Removing all queues from do not disturb

SuperAdvisor
To remove all of the queues on a grid from do not disturb:

- Right-click the grid and click **Grid Control**=>**Remove Do Not Disturb**.
  SuperAdvisor removes all of the queues from do not disturb.

CyberTerminal

The SX-200 displays data in a series of ACD Monitors on a standard VT100™ compatible terminal. The ACD Monitors act as a "window" to the ACD system providing an event-display that is updated after the completion of each ACD activity. The VT100 has System Activity, Path Summary, Agent Group Summary, and Agent Information event-displays (sessions).

prairieFyre uses CyberTerminal to view a VT100 terminal session. If you have Windows 2000, or Windows 2000 Professional, you can optionally view ACD Monitor sessions on the VT100 terminal using the HyperTerminal application. You click Start=>Programs=>Accessories=>Communications=> HyperTerminal to start HyperTerminal.

SX-200 connectivity to the 6110 CCM Server

Typically, the SX-200 telephone system is co-located with the 6110 CCM Server. By default, prairieFyre configures Comport 2 to accept the ACD data stream generated by the 1103 Datatset, and Comport 1 to accept the SMDR and Agent Shift data streams. The 1103 Dataset connects to the DNIC port on the SX-200. All components connect over RS-232 serial cable.

Call centers that have only one 1103 Dataset and one DNIC port on the SX-200 system have a single VT100 terminal session available for viewing real-time System Activity, Path Summary, Agent Group Summary, and Agent Information ACD Monitor sessions. In order to view more than one session simultaneously, you require additional 1103 Datasets and DNIC ports.

prairieFyre uses CyberTerminal to view a VT100 terminal session. The terminal session runs on the server in memory. The server distributes it to connected clients through TCP-IP.

Figure 6-43 illustrates how CyberTerminal distributes real-time information through the VT100 terminal session for the SX-200 (prior to SX-200® EL/ML LIGHTWARE 17 Release 4.0).

Figure 6-43 SX-200 connectivity to the 6110 CCM Server
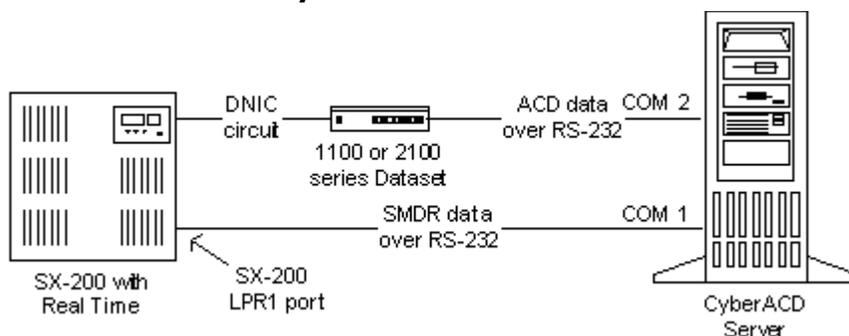
Data streams and prairieFyre real-time displays

On the 6110 CCM Server, Comport 2 accepts the ACD data stream generated by the 1103 Dataset, and Comport 1 accepts the SMDR and Agent Shift data streams.

Table 7-9 illustrates which data streams feed the various ACD monitors.

Table 6-9   Data streams and prairieFyre real-time displays

Data Stream	VT100 Session
ACD	ACD System Screen
ACD	Group Summary Screen
ACD	Agent Summary Screen
SMDR & ACD	Path Summary Screen
SMDR	N/A
SMDR	N/A
SMDR	N/A

Using CyberTerminal, multiple clients can simultaneously view real-time data displayed on a VT100 terminal. Clients view the session over the LAN or WAN, and can control which session is currently being viewed. They can connect to an existing VT100 display or create a new one if not all displays are already open. Clients have the same memory image as the server. All subsequent updates are sent to all connected clients.

Viewing real-time SX-200 statistics

CyberTerminal displays one or more ACD Monitor sessions on the VT100 terminal. The monitors are arranged in a hierarchy that provides quick access to the following four areas of the telephone system: the System Activity Monitor, the Path Summary Monitors, the Agent Group Summary Monitors, and the Agent Information Monitors. Clients connected to the 6110 CCM Server computer are automatically updated with real-time statistics.

To install CyberTerminal and view real-time statistics:

1. Start IE and browse to the 6110 CCM Web application.
2. Log on to the 6110 CCM Server using your 6110 CCM user name and password.
3. On the 6110 CCM user interface, click **Help**=>**Client Download** and click **CyberTerminal** to run the CyberTerminal Setup.
4. Click **Start**=>**Programs**=>**prairieFyre Software Inc**=>**6110 CCM CyberTerminal**.
5. Click **File**=>**Connect**, enter the 6110 CCM Server IP address and port number, and click **OK**.
6. Press **Enter** several times to view the System Activity display.

Figure 6-44 appears.

Figure 6-44 CyberTerminal - System Activity Monitor


```
CyberTerminal Client - Connected to 10.1.1.99          _ □ ×
File  View  Help

 12:41    16-FEB-99           SYSTEM ACTIVITY          MITEL ACD Telemarketer
 ┌──────────────────┬──────────────────────┬──────────────────────────┐
 │   CALLER ACTIVITY │    AGENT ACTIVITY     │   SUMMARY - LAST HOUR     │
 ├──────────────────┼──────────────────────┼──────────────────────────┤
 │ CALLERS  :  -     │ ON  ACD  :  -         │ ENTERED  :     -          │
 │ CALLS  WTG:  -    │ READY    :  1         │ TIMEtoANS :    :          │
 │ LONGST WTG:  :    │                       │ SVC LEVEL<:    -   -      │
 │                   │                       │ SVC LEVEL>:    -   -      │
 │ UNDER 1ST :  -    │ MAKE BUSY :  -        │                          │
 │ BETWEEN   :  -    │ DND       :  -        │ ANS by AGT:    -   :      │
 │ AFTER 2ND :  -    │                       │ ANS by AGT:    -          │
 │                   │                       │                          │
 │ ON RECRDNG:  -    │ ON non ACD:  -        │ ON non ACD:    -   :      │
 │ HELD CALLS:  -    │                       │                          │
 │                   │ LOGGED ON :  1        │ ABANDONED :    -   :      │
 │                   │ LOGGED OFF: 26        │                          │
 │                   │                       │                          │
 ├───────────────────┴──────────────────────┴──────────────────────────┤
 │ ▌                                                                    │
 ├──────────────┬─────────────────┬──────────┬──────────────┬──────────┤
 │ 1-PATHS      │ 2-AGENT GROUPS  │ 3-AGENTS │ 4-LANGUAGE   │ 5-       │
 ├──────────────┼─────────────────┼──────────┼──────────────┼──────────┤
 │ 6-QUIT       │ 7-PRINT         │ 8-       │ 9-           │ 0-       │
 └──────────────┴─────────────────┴──────────┴──────────────┴──────────┘
```

The VT100 sessions are arranged in a hierarchy that provides access to the following four areas of the telephone system: the System Activity Monitor, Path Summary Monitors, Agent Group Summary Monitors, and Agent Information Monitors.

To view a different display:

1. Type the number on your keyboard that corresponds to the display you want to view.
2. Press **Enter**.
3. Type 1 to display the Path Summary Monitor.
4. Type 5 to cancel the display and returns you to the previous display.
5. Type **Ctrl-W** to force the server to refresh all clients.

The server main screen provides the following functions.

File

The File menu consists of the following commands.

- The Connect command connects your computer to the 6110 CCM Server.
- The Disconnect command disconnects your computer from the 6110 CCM Server.
- The Exit command closes the application.

View menu

- The View menu consists of the following commands.
- The AutoResize command resizes the CyberTerminal application to its default display size.
- The Options command provides options for changing the background color, and the font color and size for CyberTerminal.

Help menu

The Help menu provides the version number of the CyberTerminal application and access to an online Help file on CyberTerminal.

ACD Monitor sessions

The following section describes the VT100 System Activity, Path Summary, Agent Group Summary, and Agent Information ACD Monitors sessions.

System Activity monitor

The System Activity monitor displays agent activity, the current status of the ACD system, and a summary of system performance over the past hour. Table 7-10 lists the fields of the System Activity display provided by CyberTerminal.

Table 6-10   Terms used in System Activity display

Term	Meaning
Callers	
Callers	This is the number of callers within the ACD system including callers talking to agents and callers waiting for agents, but not including callers in the delay for ring back.
Calls Wtg	This is the number of callers queued up waiting for an agent to become available, including those listening to silence, music, alternate music, or a recorded announcement.
Longst Wtg	This is the duration, in minutes and seconds, of the call that has been waiting longest in queue.
Under 1st	This is the percentage of callers in the system that wait less than the first threshold time programmed for the primary group of the path.
Between	This is the percentage of callers in the system that wait longer than the first threshold time but less than the second threshold time programmed for the primary group of the path.
After 2nd	This is the percentage of callers in the system that wait longer than the second threshold time programmed for the primary group of the path.
On Recrdng	This is the number of calls that are listening to a recorded announcement while waiting in the queues.
Held Calls	This indicates the number of ACD callers that have been placed on hold.

Table 6-10   Terms used in System Activity display

Agent activity	
On ACD	This is the number of agents currently on ACD calls.
Ready	This is the number of agents currently ready. Those agents are not on any type of call and are available to receive ACD calls.
Make Busy	This is the number of logged in agents that are in Make Busy. These agents do not receive ACD calls.
DND	This is the number of logged in agents that have activated Do Not Disturb. These agents do not receive ACD or non-ACD calls.
On Non ACD	This is the number of agents currently involved in incoming non-ACD calls or agent originated calls.
Logged On	This is the number of agents currently logged into the ACD system.
Logged Off	This is the number of agents currently not logged in to the ACD system.
Summary - last hour	
Entered	This is the total number of ACD calls that have entered a queue in the ACD system over the past hour.
Time To Ans	This is the average time before a call is answered by an agent.
SVC Level	This is the summary - from all paths in the system - of the path service level statistics. The first field shows the number of calls answered within the paths' service time; the second is the percentage of calls answered outside of the service time.
Ans By Agt	This is the number of calls received over the past hour that have been answered by an agent and the average duration of the calls.
Ans By Agt	This is the percentage of all ACD calls that entered over the past hour that were answered by an agent.
On Non ACD	This is the number of calls over the past hour that were either incoming non-ACD calls answered by an agent or agent originated calls, and the average duration of these calls.
Abandoned	This is the number of callers who abandoned before being answered by an agent and the average time a caller waited before abandoning.

System Activity monitor Softkeys

The System Activity monitor display has System Activity monitor Softkeys used to enter the second level in the monitor hierarchy. The softkeys provide access to detailed displays on the performance of specific paths (queues), agent groups and agents. Table 7-11 explains the various softkeys and their purpose.

Table 6-11   System Activity Monitor Softkeys

PATHS	When you enter *1* (for PATHS) at the prompt you are requested to provide a queue ID. The Path Summary monitors for the selected queue are displayed.
AGENT GROUPS	When you enter *2* (for AGENT GROUPS) at the prompt you are requested to provide an Agent group number. The Agent Group Summary monitors for the selected group are displayed.
AGENTS	When you enter *3* (for AGENTS) at the prompt you are requested to provide an Agent ID number. The Agent Information monitors showing current agent activity and the last hour's statistics are displayed.

Path Summary monitors

Figure 6-45 illustrates the main Path Summary Monitor. The Path Summary monitors provide data on individual queues, that includes the database defined parameters of the queue, the current activity on the queue, and a brief statistical analysis for the queue.

Figure 6-45 Path Summary Monitors
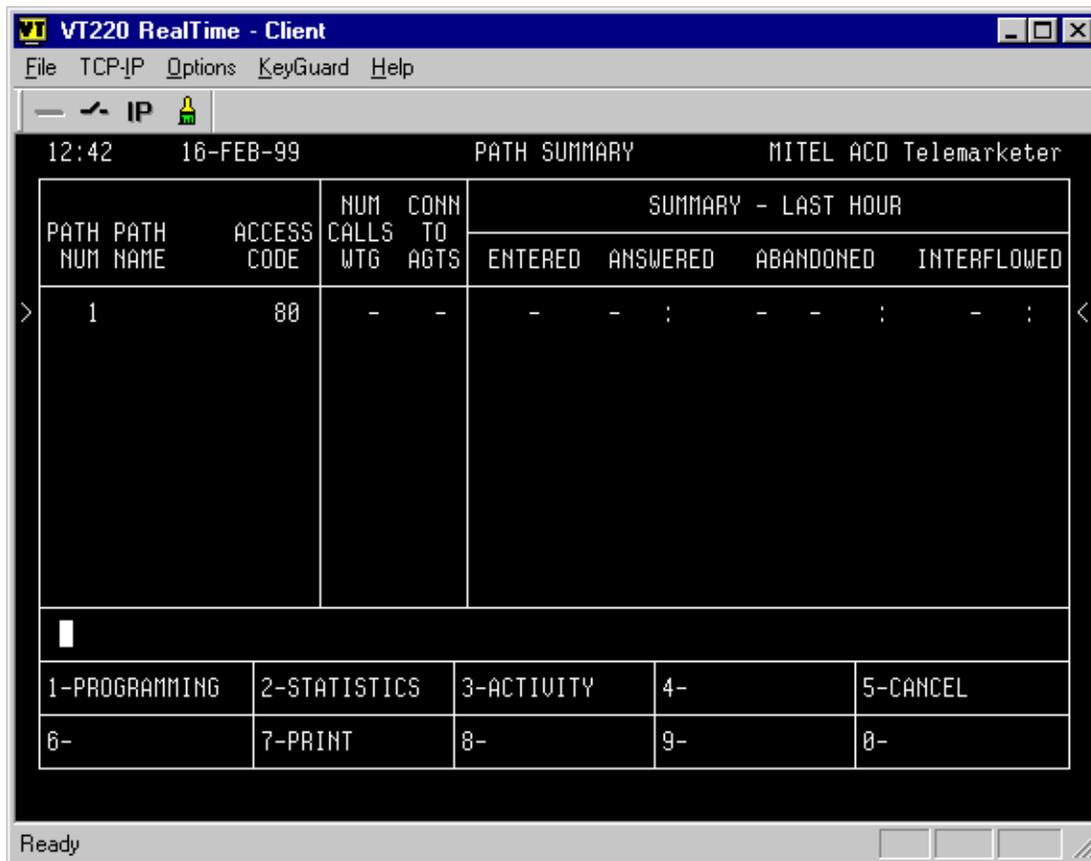
The system displays path information on four forms. You enter the Path monitor sub-level from the Path Summary display, which shows activity on the requested path. When you enter *1* for PATHS on the System Activity Monitor and enter a queue number, Figure 6-45 appears.

Table 6-12 lists the fields of the Path Summary display.

Table 6-12   Terms used in Path Summary display

Term	Meaning
Current information	
Path Num	This is the path/queue number. Queues are displayed in ascending order by queue numbers (range = 1 - 50).
Path Name	This is the name of the queue as programmed in database.
Access Code	This is the access code of the queue (1 - 5 digits).
Num Call Wtg	This is the number of ACD calls which originated on this queue that are currently queued against any of the groups programmed in the queue.
Conn To Agts	This is the number of callers from this queue currently talking to agents of any of the groups programmed in this queue.
Summary - last hour	
Entered	This is the number of calls that entered this path. See NOTE below.
Answered	This is the first entry is the number of calls answered by all groups in the path. The second entry is the average time to answer for those calls.
Abandoned	This is the first entry is the number of callers who abandoned while waiting for a group in this path. The second entry is the percentage of the calls offered that this represents, and the third is the average time a caller waited before abandoning.
Interflowed	This is the first entry is the number of callers who interflowed out of this path. The second entry is the average time to interflow for those calls.

NOTE: The Entered field on the Path Summary monitor shows the number of times a call enters the path. In cases where a path interflows to itself or to another path, each call that interflows increments the entered count. Therefore, one call into the system may have "entered" many times.

The Path Summary display has Path Summary Softkeys you use to access detailed information in three categories: database programmed data, statistics gathered on the path over the past hour, and current path activity.

Entering *2* for the STATISTICS softkey in the Path Summary window displays the Path Statistics display. This display provides a statistical overview of the queue's current performance, as well as a summary of activity over the past hour.

Entering *3* for the ACTIVITY softkey in the Path Summary window displays the Path Activity display. This display provides a continuously updated picture of the traffic on a given queue. The information relates to the callers in line for the queue as well as any ready agents waiting for calls from the queue.

Agent Group Summary monitors

The Agent Groups Summary monitors display data on individual agent groups. Displays include the database programmed data for each agent group, the current activity of the group, and a brief current analysis of statistical data for the group.

The following four forms provide information about the agent groups programmed in the ACD system:

- The Group Summary form displays important information about each agent group.
- The Group Programmed Data form displays the data programmed in database for each agent group.
- The Group Statistics form provides statistics gathered on the agent group over the past hour and since the beginning of the shift.
- The Group Activity form shows current caller and agent activity for the group.

When you enter *2* for AGENT GROUPS on the System Activity Monitor and enter an agent group number, Figure 6-46 appears.

Figure 6-46 Agent Group Summary Monitors
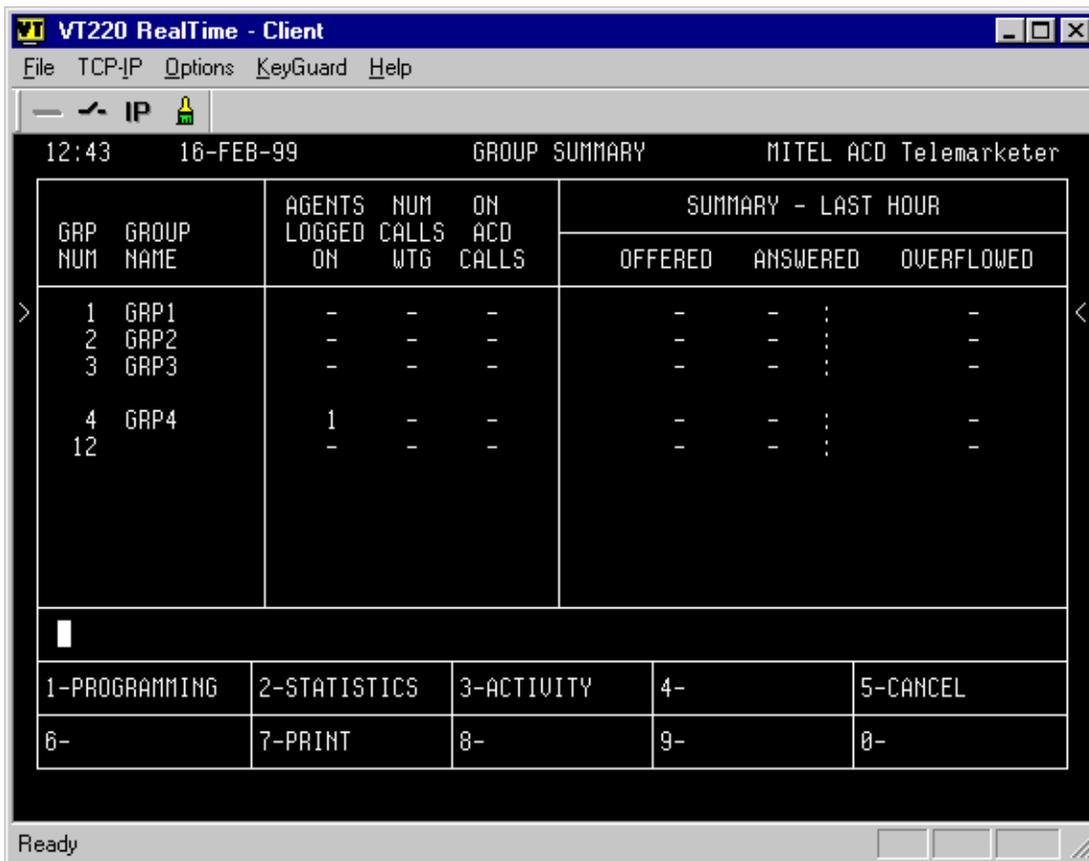
Table 7-13 lists the fields of the Agent Group Summary display.

Table 6-13   Terms used in Group Summary display

Term	Meaning
Current information	
Grp Num	This is the agent group's number.
Group Name	This is the agent group's name as programmed in database.
Current state	
AGENTS LOGGED ON	This is the number of agents in this group currently logged on.
NUM CALLS WTG	This is the number of ACD calls queued up, from all paths, for agents in this group.
ON ACD CALLS	This is the number of agents in this group currently active on ACD calls.
Summary - last hour	
OFFERED	This is the number of incoming ACD calls offered to the group from all paths.
ANSWERED	This is the number of incoming ACD calls answered by this group and the average duration of those calls.
OVERFLOWED	This is the number of calls that overflowed in any path while queued for this group as the primary group.

Agent Group form Softkeys provide access to detailed information on database programmed data, current queue activity, and statistics gathered on the queue over the past hour.

Entering *2* for the STATISTICS softkey in the Agent Group Monitor window displays the Group Statistics form. This display provides a summary of statistics collected over the past hour and shift totals for the group.

Entering *3* for the ACTIVITY softkey in the Agent Group Monitor window displays the Group Activity form. This form provides a continuously updated display of the activity of callers and agents within the group.

Agent Information monitors

The Agent Information monitors provide data on individual ACD agents. Displays include the database programmed data for each agent in the system, the current activity of the agents, and a brief current analysis of statistical data for the agents.

The following forms provide information about the agents who are currently logged in, and who are programmed in the ACD system:

- The Agent Programmed Data display shows all information entered during customer data entry that affects this agent.
- The Agent Statistics display shows details of the agent's performance over the last hour, and a comparison between the performance of this agent and the entire group.
- The Agent Activity display shows the current status of any particular agent.

When you enter *3* for AGENTS on the System Activity Monitor and enter an agent ID, Figure 6-47 appears.

Figure 6-47 Agent Information Monitors
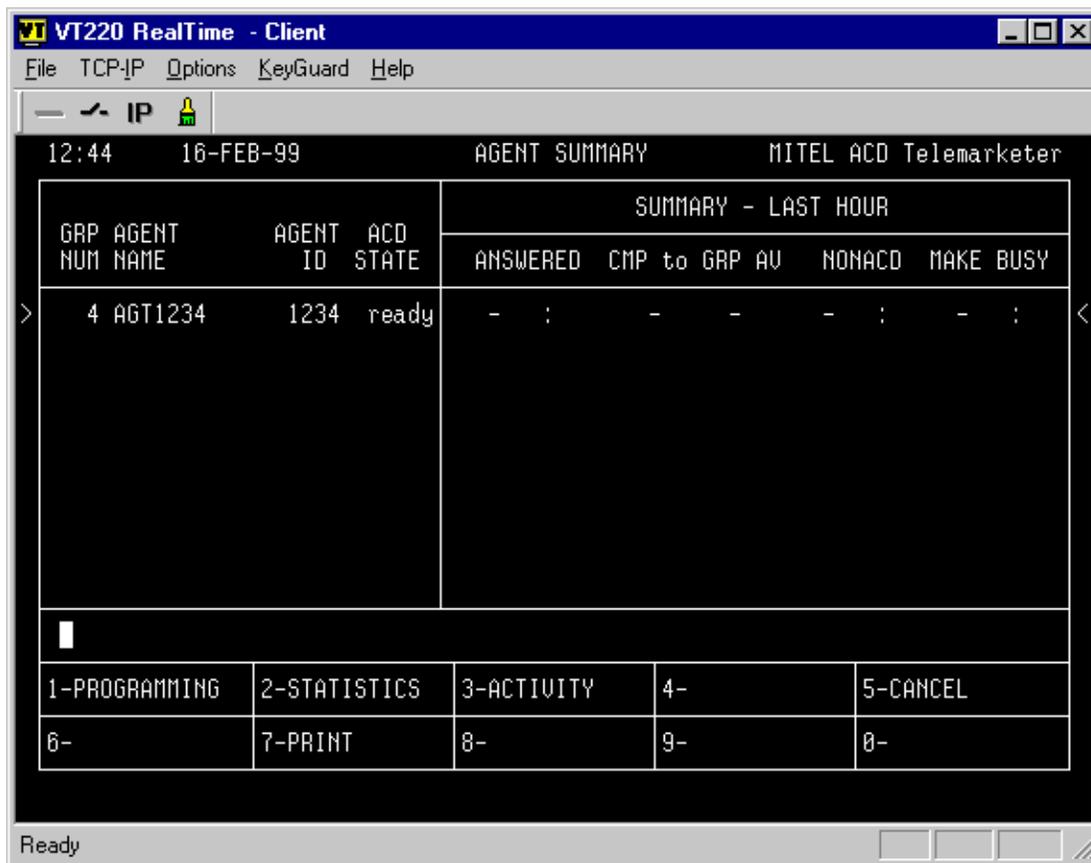
The Agent Summary form is the primary form within the agent sub-level. This form provides an overview of current activity. Table 7-14 lists the fields of the Agent Summary display.

Table 6-14   Terms used in Agent Summary display

Term	Meaning
Agent name and current state	
Grp Num	This is the agent group's number.
Agent Name	This is the agent's name as programmed in database.
Agent ID	This is the agent's ID or access code.
ACD State	This is the current state of the agent. The agent can be in one of the following states: • The ACD agent in on an ACD call. • The DND agent has Do Not Disturb activated. • The hold agent has an ACD caller on hold. • The make busy agent has entered the make busy state. • The non-ACD agent is on a non-ACD or outgoing call. • The ready agent is ready to accept an ACD call. • The wrap up agent is in an after work timer state.
Summary - last hour	
Answered	This is the number and average duration of incoming ACD calls answered by this agent.
Cmp To Grp Av	This is the first percentage is the ratio of the number of incoming ACD calls answered by this agent compared to the total number of calls answered by the group over the same period. Agents logging on and off during the period affect the numbers. This is the second percentage is the ratio of the average call duration of incoming ACD calls answered by this agent compared to the average duration of calls answered by the group over the same period.
Non ACD	This is the number and average duration of non-ACD calls received and placed by the agent.
Make Busy	This is the number and average duration of times the agent was in a Make Busy state.

The Agent Summary form display has Agent Summary form softkeys you use to access detailed information. Agent Summary form softkey labels provide detailed information in three categories: database programmed data, statistics gathered on the path over the past hour, and current path activity.

Entering *2* for the STATISTICS softkey in the Agent Summary window displays the Group Statistics form. This form provides a summary of agent performance statistics collected over the past hour. Entering *3* for the ACTIVITY softkey in the Agent Group Monitor window displays the Group Activity form. This form provides a continuously updated display of the activity of callers and agents within the group. For more information on available softkeys and their purpose consult the CyberTerminal online Help file, or the "Mitel ACD TELEMARKETERS programs Package" on the "SX-200 EL/ML Technical Documentation CD-ROM" (PN 9109-953-071-NA).

Chapter 7 Reporter and Scheduled Reports
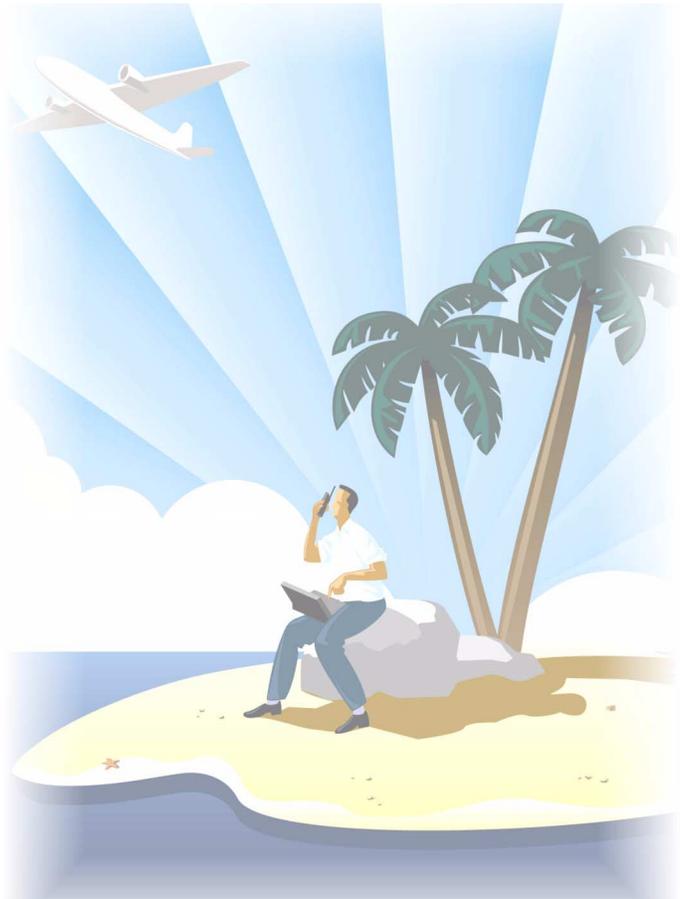
View or generate status reports from anywhere, at anytime.

Reporter and Scheduled Reports

The Reporter and Scheduled Reports programs provide detailed statistics on the performance of your call center resources in the form of reports. You use Reporter to produce run-on-demand reports. You use Scheduled Reports to set up timetables for generating reports. All reports can be generated as a run-on-demand report or as a scheduled report.

You can generate load activity, resource activity, ACD queue activity, and forecast reports for 15, 30, or 60-minute intervals across any series of days you specify.

NOTE: If you intend to export a 4Sight report to 6120 CCS, the time interval must be 30 minutes.

Reporter main screen

When you click the Reporting menu Figure 7-1 appears. The Reporter and Scheduled Reports programs have Agent, Queue, Employee, Team, Extension, Trunk, 4Sight, and DNIS Report categories. There is also a Custom Reports category for users who are licenced for custom reports.

Figure 7-1 Reporter main screen
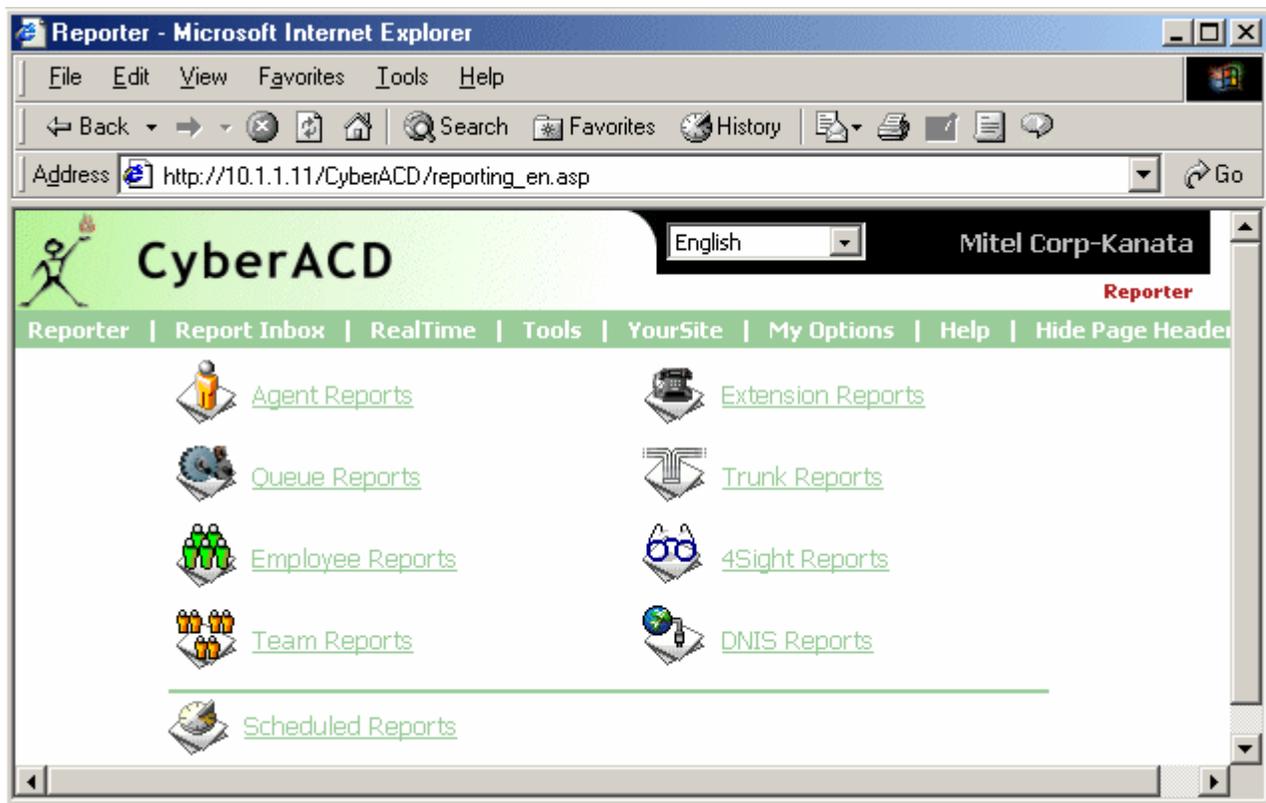
Report Inbox

The Report Inbox program stores all of your reports in your personal report inbox. The reports you generate are available only to you. You can gain access to your reports by clicking the Report Inbox menu.

Run-on-demand reports

Generating run-on-demand reports

Before you generate any reports, ensure you select Help=>Client Download and download the 6110 CCM Excel report templates from the Client Download page to your computer.

The following example demonstrates how to generate a run-on-demand Queue Group Performance by Queue Report.

If you intend to e-mail the report to one or more recipients you must add the recipients to a mailing list and associate the recipients to a group.

To set up groups for e-mailing reports:

1. Click **My Options**=>**Contacts**.
2. On the **Contacts** tab, click **Add**.
3. Type the fist name, last name, and e-mail address of the person to which you want to e-mail the report and click **OK**.
4. Optionally add additional e-mail recipients to the contacts list.
5. Click **Contact Groups**.
6. Click **Add** and type a name and description for the contract group, and click **OK**.
7. On the **Groups** tab, double-click the group, add members to the group, and click **Save**.

To run the report:

1. Click **Reporting**=>**Queue Reports**.
   Figure 7-2 appears.

Figure 7-2 Select report options

2. In the **Report Type** list, click **Queue Group Performance by Queue**.
3. In the **Queue** list, select a device.
4. In the **Start Date** and **End Date** lists, click a start date and end date for the report.
5. In the **Start Hour** and **End Hour** lists, click a start hour and end hour for the report.
6. In the **Output Language** list, select **English** or **French**.
7. In the **Interval** list, select the time interval for reporting.
8. Under **Days to Include**, select days of the week to include in the report.
9. Under **Automatic Client Printing Options**, select printing options.
10. Under **Automatic Client Mailing Options**, select the **Enable** check box and select   an e-mail address.
11. Click **Submit**.

The following options are available.

Report Type

The Report Type field lists the report name.

Queue

The Queue field lists the reporting number for the queue on which you are reporting.

Start Date/End Date

The Start Date and End Date lists specify the range of dates used in the report. You can pick any calendar date as the start date, and any date later in the calendar year as the end date.

Start Hour/End Hour

The Start Hour and End Hour lists specify the hours of the day included in the report.

Output Language

The Output Language list specifies the language used in the report tables and charts: English or French.

Interval

The Interval list specifies the report period: by 15, 30, or 60 minutes.

Days to Include

The Days to Include check boxes specify days of the week to include in the report.

Automatic Client Printing

The Automatic Client Printing check boxes print the report spreadsheet and associated graph.

Automatic Client Mailing

Under Automatic Client Mailing, the Enable check box e-mails the report spreadsheet and associated graph to the e-mail address selected in the Mail To list. You add contacts and contact groups to the Mail To list under the My Options menu.

NOTE: Each time you run a report, Reporter retains the Start Hour, End Hour, Interval, and Days to Include report parameters last selected.

NOTE: You can generate multiple queue reports simultaneously by selecting more than one queue in the Queue list and clicking Submit. This function applies to all report types.

Figure 7-3 appears.

Figure 7-3 Report confirmation

Reporter has submitted your report(s).
Click "View Report Inbox" to gain access to the report(s).

View Report Inbox

The Report Writer queries the SQL database for report data and saves the data on the 6110 CCM Server.

Viewing run-on-demand reports

Report Inbox includes Today's Reports, Yesterday's Reports, All of Your Reports, and Inbox Manager links.

Today's Reports displays all of the reports generated today under your user name. Yesterday's Reports displays all of the reports generated yesterday under your user name. All of Your Reports displays all of the reports generated under your user name over the last 30 days. It provides links to run-on-demand, run-from-schedule, and all reports, by date. Inbox Manager deletes reports from your inbox by date range.

To view reports:

1. Click **View Report Inbox** (upon submitting a report) or click **Report Inbox**=>**Today**.
    When you click the Report Inbox menu Figure 7-4 appears.

Figure 7-4 Submitted reports
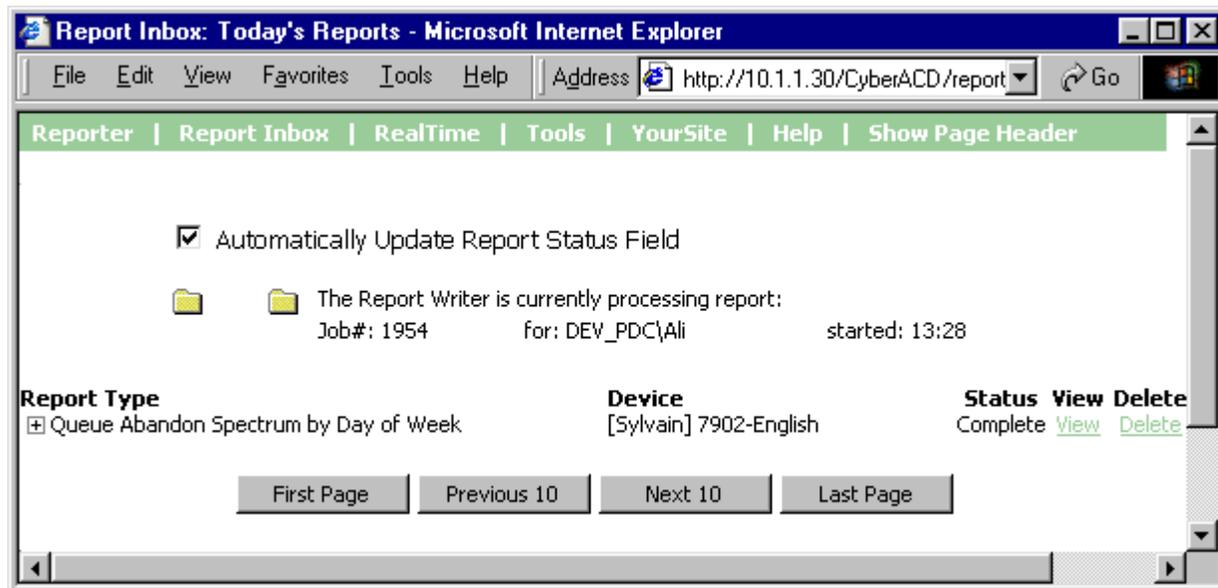
Report Writer displays all reports generated under your user name for the time period selected.
2. Select the **Automatically Update Report Status Field** check box to have the Web page automatically updated every 10 seconds.
3. Click the expansion box adjacent to a report to review report status details. Figure 7-5 appears.
4. Click the **View** entry associated with a report to open the report.

Figure 7-5 Report status

Report Inbox provides the following information.

Report Type

The Report Type field lists the report name.

Device

The Device field lists the reporting number for the device on which you are reporting.

Status

The Status field confirms if your report is ready. When *Complete* appears in the status field the report is waiting in your Report Inbox. When *Pending* appears, the report is not ready. *No Data* means no records were available for the parameters you specified. *Failed* means the report did not generate. If a report fails, the Report Writer logs errors in the NT event log. Clicking *Re-Submit* regenerates the report.

View

The View command displays reports generated in Microsoft Excel.

Delete

The Delete command deletes reports from your report inbox.

Print Status

The Print Status field confirms if the Report Distributor program has printed a copy of the report. Field entries include *Sent to Client*, *Pending*, and *Failed*. *Sent to Client* means the Report Distributor received instructions to process the print job. *Pending* means the Report Distributor has not requested the job yet, or is not currently running on your computer.

Print Charts

The Print Charts field confirms whether or not charts will be printed.

Print Action

Under Print Action, the *Re-Submit* command resubmits the report for printing.

Mail To

The Mail To field lists the e-mail address of the person to which you sent the report.

Mail Status

The Mail Status field confirms if the Report Distributor has mailed a copy of the report. Field entries include *Sent to Client*, *Pending*, and *Failed*. *Sent to Client* means the Report Distributor received instructions to process the e-mail. *Pending* means the Report Distributor has not requested the job yet, it is not currently running on your computer, or there was a problem in distributing the e-mail.

Associated Schedule

The Associated Schedule field specifies the associated schedule for scheduled reports.

Output Language

The Output Language list specifies the language used in the report tables and charts: English or French.

When you click View, the client-side Report Writer (Web page) retrieves the data files from the 6110 CCM Server and re-creates the data set on your computer. It starts Excel and displays the report spreadsheet and graph. If you click View to open a second report, Report Writer displays it in the same Excel session

You can graph other results by highlighting one or more columns of data in the spreadsheet and using the Excel Chart Wizard. You can also use the Excel chart wizard to change the grid style.

While the report is open on your computer, you can save it to your local disc drive and e-mail it to others, or place it on a shared network drive for others to access.

If you e-mail reports to other users, the users must have Excel installed on their computers to view the reports.

NOTE: 6110 CCM permissions are based on database teams and groups. In programming the YourSite Database, you must create agent IDs and associate the agents to employees and to agent groups. You must associate the agent groups to the queues for which they answer calls. You must associate the employees to employee groups and the queues to queue groups. You must create these associations in the database in order to view real-time data and report on these devices. If you are reporting on extensions, trunks, DNIS numbers, and account codes, you must add these devices to the YourSite Database and associate the extensions to extension groups, trunks to trunk groups, and DNIS numbers to DNIS groups.

Figure 7-6 illustrates the report output for a Trunk Group Performance by Trunk Report.

Figure 7-6 Trunk Group Performance by Trunk Report

Trunk Number	ACD Calls Answered	Non ACD Calls Answered	Calls Abandoned	Calls Outbound	Avg Speed of Answer h:mm:ss	Avg Delay to Abandon h:mm:ss	Average ACD Talk Time h:mm:ss	Total ACD Talk Time h:mm:ss	Total Non ACD Talk Time h:mm:ss	Average Non ACD Talk Time h:mm:ss	Total Outbound Time h:mm:ss	Average Outbound Time h:mm:ss
1	433	0	325	1019	0:01:59	0:02:00	0:02:14	16:13:30	0:00:00	0:00:00	27:41:45	0:01:37
2	435	0	326	1018	0:01:59	0:02:00	0:02:15	16:19:30	0:00:00	0:00:00	27:39:10	0:01:37
3	436	650	327	1041	0:00:30	0:02:00	0:02:15	16:21:00	13:32:30	0:01:15	28:21:15	0:01:38
4	432	326	325	1019	0:00:30	0:02:00	0:02:14	16:09:00	6:47:30	0:01:15	27:41:45	0:01:37
5	435	654	325	1034	0:00:30	0:02:00	0:02:15	16:22:30	13:37:30	0:01:15	28:09:40	0:01:38
Total	2171	1630	1628	5131	0:01:06	0:02:00	0:02:15	81:25:30	33:57:30	0:00:45	139:33:35	0:01:37

Trunk Group Performance by Trunk

prairieFyre Software Inc

Device: 6-All Trunks Group

Date Range: 08/01/1999 - 08/07/1999

Create Date: 04/15/1999

Created By: CYBER_ACD\acd

Total Trunk Performance
6-All Trunks Group for 08/01/1999 - 08/07/1999

ACD Talk Time 32%

NonACD Talk Time 55%

Outgoing Talk Time 13%

What to do if data is missing from the reports

The prairieFyre Service compares the raw telephone system data to the configuration of the YourSite database and forwards relevant files to the Structured Query Language (SQL) database in real-time. Reports are run based on the data in the SQL database.

NOTE: 6110 CCM associations are based on database teams and groups. In programming the YourSite Database, you must create agent IDs and associate the agents to employees and to agent groups. You must associate the agent groups to the queues for which they answer calls. You must associate the employees to employee groups and the queues to queue groups. You must create these associations in the database in order to view real-time data and report on these devices. If you are reporting on extensions, trunks, DNIS numbers, and account codes, you must add these devices to the YourSite Database and associate the extensions to extension groups, trunks to trunk groups, and DNIS numbers to DNIS groups.

If you run a report and notice that the data for a particular device is missing from the report output, verify the device is programmed in the telephone system and in the YourSite Database. If you determine the device is missing from the database, add it to the database and use the Summarize Data command (on the Management Console program) to update the prairieFyre Service and the SQL database with the complete telephone system data stored on the local hard drive. You can then produce reports on the device.

Deleting reports

You can delete reports individually in Report Inbox or by date in the Inbox Manager program.

To delete all reports submitted on a given date:

1. Click **Report Inbox**=>**Inbox Manager**.
   Figure 7-7 appears.
2. Select a date range for deleting reports.
3. Click **Delete**.
   Inbox Manager deletes *all* reports submitted on the date(s) in question.

NOTE: Report Writer deletes all reports that are 30 days or older from your report inbox. For run-on-demand reports, the request date governs the reports age. For scheduled reports, the date the system generates the report governs the reports age. You save any reports you want to retain beyond 30 days to your hard drive or network home directory.

Figure 7-7 Inbox Manager main screen
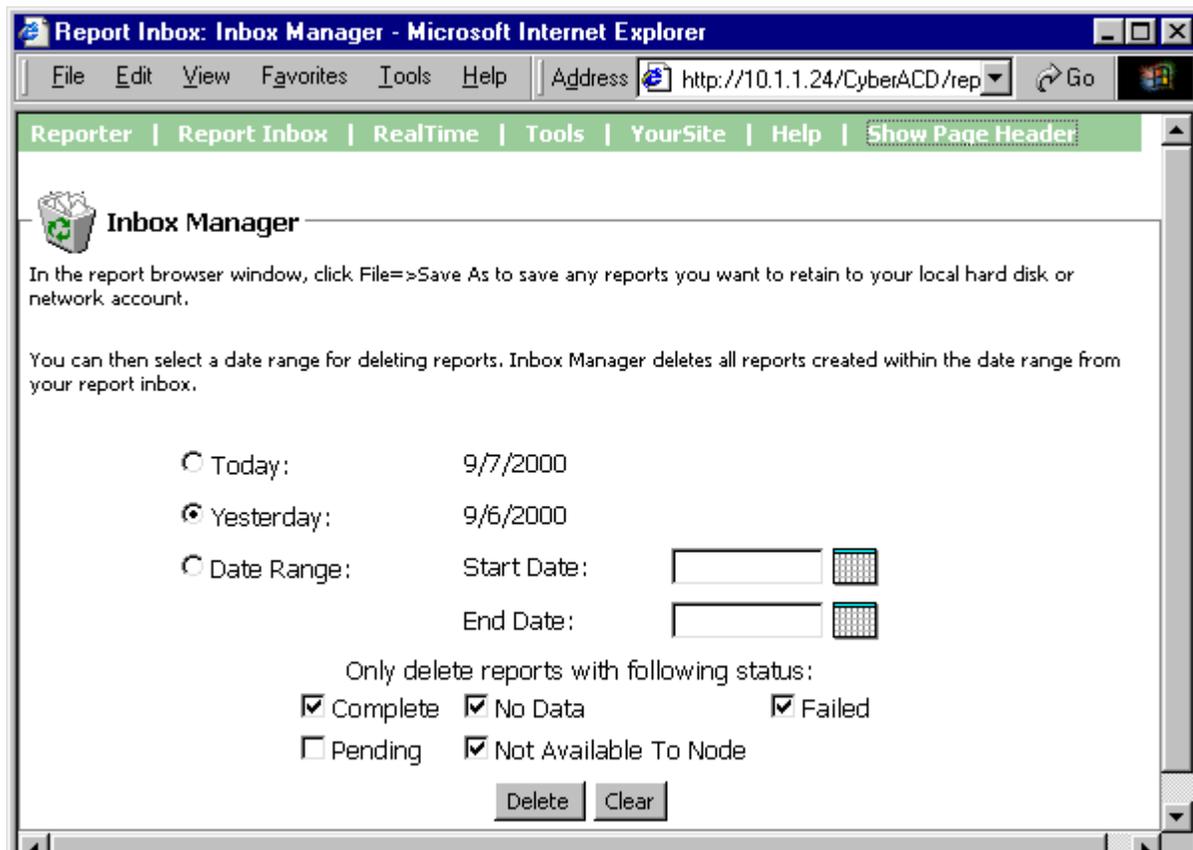
Scheduled Reports

Scheduled Reports sets up timetables for generating reports.

Before you generate any reports, ensure you select Help=>Client Download and download the 6110 CCM Excel report templates from the Client Download page to your computer.

Scheduled Reports main screen

When you click Reporting=>Scheduled Reports, Figure 7-8 appears. This is where you create and manage schedules.

Figure 7-8 Scheduled Reports main screen
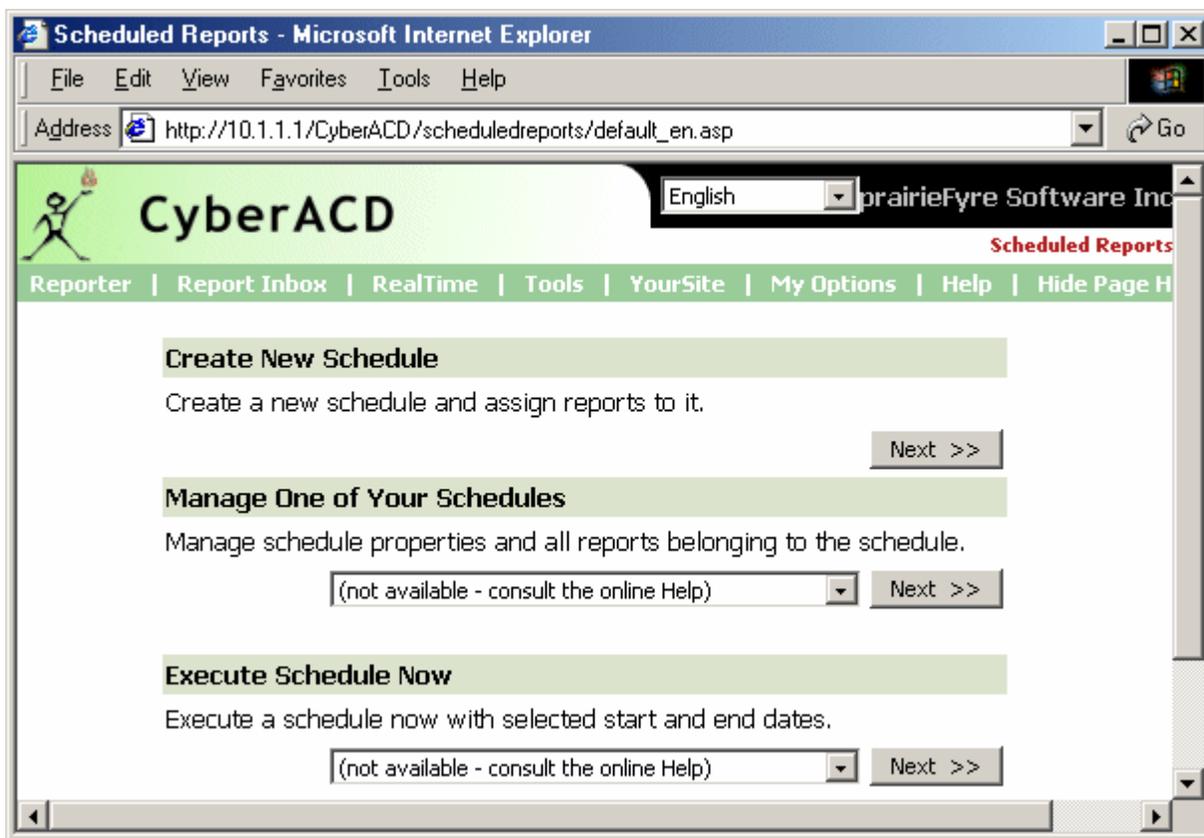
On the Scheduled Reports main screen, under Create New Schedule you can create a new schedule. Under Manage One of Your Schedules, you can view and edit schedule details. Under Execute Schedule Now, you can select a schedule and generate the reports associated with the schedule immediately.

Generating a schedule

During the nightly maintenance routine, the entire day's raw telephone system data is re-summarized from the local hard drive into the SQL database. In the event the SQL database is stopped and restarted during the day, re-summarizing the data ensures the SQL database has the entire set of raw data files.

Reports are run based on the data in the SQL database. We recommend you schedule your reports to run *after* the nightly maintenance routine runs, that is, after 2:00 A.M., to ensure the reports are based on the entire day's raw telephone system data.

If you intend to e-mail the report(s) (associated with your schedule) to one or more recipients you must add the recipients to a mailing list and associate the recipients to a group.

To set up groups for e-mailing reports:

1. Click **My Options**=>**Contacts**.
2. On the **Contacts** tab, click **Add**.
3. Type the fist name, last name, and e-mail address of the person to which you want to e-mail the report and click **OK**.
4. Optionally add additional e-mail recipients to the contacts list.
5. Click **Groups**.
6. Click **Add** and type a name and description for the contract group, and click **OK**.
7. On the **Groups** tab, double-click the group, add members to the group, and click **Save**.

To create a schedule for running reports:

1. On the Scheduled Reports main screen, click **Next** under **Create New Schedule** to create a schedule.
   Figure 7-9 appears.

Figure 7-9 Select schedule parameters

2. In the **Schedule Name** list, type a schedule name.
3. In the **This Schedule Will Run** list, click the schedule frequency, such as every day, every Wednesday, or the start of month.
4. In the **At** list, click the time of day the schedule will be activated.
5. In the **Report Time Span** list, specify the dates to be included in the report.
6. Under **Automatic Client Printing**, select printing options.
7. Under **Automatic Client Mailing**, select the **Mail Reports from This Schedule To** check box and select an e-mail address.

Consider the schedule parameters in Figure 7-9. At 00:15 hours each Saturday, Scheduled Reports will generate reports associated with the Support1 schedule. It will place them in your inbox, print them in hard copy, and e-mail them automatically.

Under Report Time Span, if you select Year to Date, the report output includes all days from 1 January to the present date. You can optionally select the From Given Start Date to Current Date option and produce reports for your fiscal year.

If you select printing and mailing options, the Report Distributor prints and e-mails *all* of the reports included in the schedule (on the date the system runs the reports).

Associating reports to the schedule

1. After creating a schedule for running reports, click **Create**.
   Figure 7-10 appears.
2. Click a report icon, such as **Queue Reports**.
3. In the **Report Type** list, click a report type.
4. In the **Queue** list, click a group.
5. In the **Start Hour** and **End Hour** lists, click a start hour and end hour for the report.
6. In the **Interval** list, select the time interval for reporting.
7. In the **Output Language** list, select **English** or **French**.
8. Under **Days to Include**, select days of the week to include in the report.
9. Click **Submit**.

Figure 7-10 Report categories

Figure 7-11 appears.

Figure 7-11 Queue report options

The following options are available.

Report Type

The Report Type field lists the report name.

Queue

The Queue field lists the reporting number for the queue on which you are reporting.

Start Hour/End Hour

The Start Hour and End Hour lists specify the hours of the day included in the forecast.

Interval

The Interval list specifies the report period: by 15, 30, or 60 minutes.

Output Language

The Output Language list specifies the language used in the report tables and charts: English or French.

Days to Include

The Days to Include check boxes specify the days of the week to include in the report.

NOTE: Each time you run a report, Reporter retains the Start Hour, End Hour, Interval, and Days to Include report parameters last selected.

NOTE: You can generate multiple queue reports simultaneously by selecting more than one queue in the Queue list and clicking Submit. This function applies to all report types.

Figure 7-12 appears.

10. Click **Manage Schedule** to review schedule details for the reports associated with the active schedule.

Figure 7-12 Schedule confirmation

Active Schedule: Support1

Reporter Scheduler has successfully added the reports to this schedule.

Add Report | Manage Schedule | Scheduled Report Menu

Figure 7-13 appears. The Report Writer queries the SQL database for report data and saves the data on the 6110 CCM Server.

11. Click the expansion box adjacent to a report to review report status details.

You can click Add Report (to add an additional report to the active schedule), Edit Schedule (to edit the active schedule) or Delete Schedule (to delete the active schedule), Manage Schedule (to review schedule status details) or Scheduled Report Menu (to create a new schedule).

The Scheduled Reports program renders a grid and chart in Microsoft Excel in your browser. It retains the report start hour, end hour, interval, and report days last selected.

Figure 7-13 Manage schedule

Active Schedule: Support1

Schedule Details:

Will Run Next At:	9/23/00
Run Time:	Every Saturday
Start Hour:	00:15
Report Time Span:	Previous 5 Days Excluding Run Day
Automatic Client Printing:	Print Reports Contained in This Schedule: True
	Include Charts: True
Automatic Client Mailing:	Mail Reports Contained in This Schedule: True
	To: alison@prairiefyre.com
Actions:	Add Report	Edit Schedule	Delete Schedule

Reports Included in This Schedule		
Report Type	**Device**	**Delete**
⊞ Queue Performance by Period	D1000-CUSTOMER SERVICE/REORDER	Delete

| First Page | Previous 10 | Next 10 | Last Page |

Scheduled Report Menu

Generating scheduled reports immediately

In Scheduled Reports, typically you create a schedule, associate reports to it, and specify the date and time you would like the reports to be run. On the Scheduled Reports main screen, under Execute Schedule Now, you can select a schedule and generate the reports associated with the schedule immediately.

To generate scheduled reports immediately:

1. On the Scheduled Reports main screen, under **Execute Schedule** select a schedule.
   Figure 7-14 appears.
2. Under **Select Start and End Dates**, specify the dates on which you are reporting.
3. Click **Execute Now**.

Scheduled Reports generates the reports associated with the schedule and files them to your personal report inbox immediately.

Figure 7-14 Execute schedule

Viewing scheduled reports

NOTE: 6110 CCM associations are based on database teams and groups. In programming the YourSite Database, you must create agent IDs and associate the agents to employees and to agent groups. You must associate the agent groups to the queues for which they answer calls. You must associate the employees to employee groups and the queues to queue groups. You must create these associations in the database in order to view real-time data and report on these devices. If you are reporting on extensions, trunks, DNIS numbers, and account codes, you must add these devices to the YourSite Database and associate the extensions to extension groups, trunks to trunk groups, and DNIS numbers to DNIS groups.

Report Inbox includes Today's Reports, Yesterday's Reports, All of Your Reports, and Inbox Manager links.

Today's Reports displays all of the reports generated today under your user name. Yesterday's Reports displays all of the reports generated yesterday under your user name. All of Your Reports displays all of the reports generated under your user name over the last 30 days. It provides links to run-on-demand, run-from-schedule, and all reports, by date. Inbox Manager deletes reports from your inbox by date range.

To view reports:

1. Click **Report Inbox**=>**Today**.
   Figure 7-15 appears.
2. Select the **Automatically Update Report Status Field** check box to have the Web page automatically updated every 10 seconds.
3. Click the expansion box adjacent to a report to review report status details.

Figure 7-15 Submitted reports
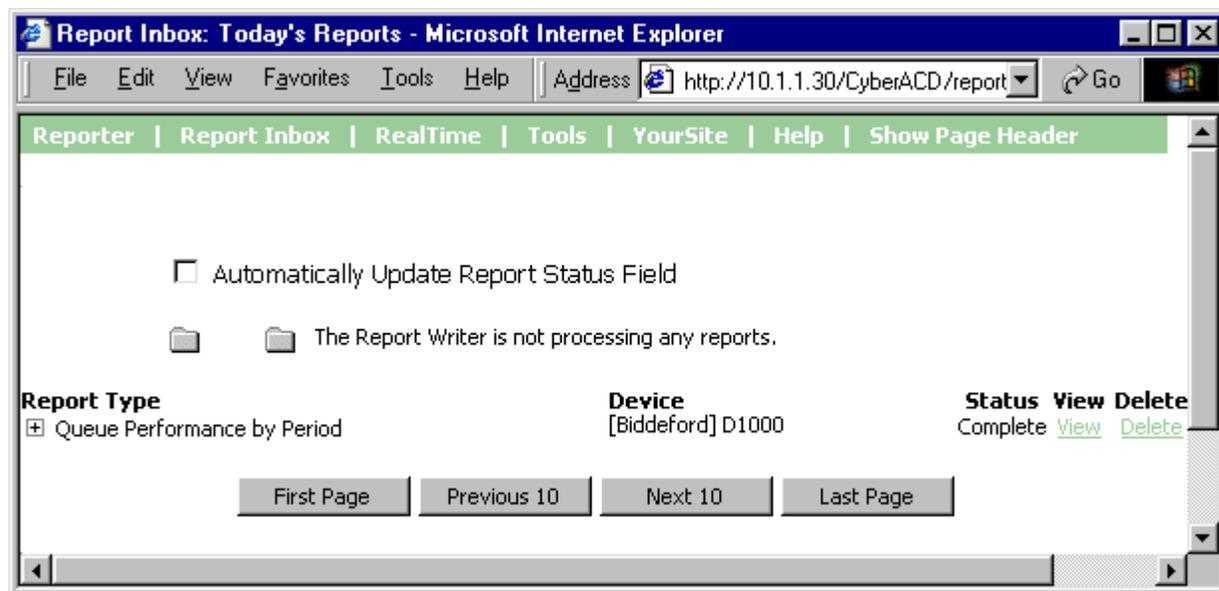
Figure 7-16 appears.

4. Click the **View** entry associated with a report to open the report.

Figure 7-16 Report status

The following options are available.

Report Type

The Report Type field lists the report name.

Device

The Device field lists the reporting number for the device on which you are reporting.

Status

The Status field confirms if your report is ready. When *Complete* appears in the status field the report is waiting in your Report Inbox. When *Pending* appears, the report is not ready. *No Data* means no records were available for the parameters you specified. *Failed* means the report did not generate. If a report fails, the Report Writer logs errors in the NT event log. Clicking *Re-Submit* regenerates the report.

View

The View command displays reports generated in Microsoft Excel.

Delete

The Delete command deletes reports from your report inbox.

Print Status

The Print Status field confirms if the Report Distributor program has printed a copy of the report. Field entries include *Sent to Client*, *Pending*, and *Failed*. *Sent to Client* means the Report Distributor received instructions to process the print job. *Pending* means the Report Distributor has not requested the job yet, or is not currently running on your computer.

Print Charts

The Print Charts field confirms whether or not charts will be printed.

Print Action

Under Print Action, the *Re-Submit* command resubmits the report for printing.

Mail To

The Mail To field lists the e-mail address of the person to which you sent the report.

Mail Status

The Mail Status field confirms if the Report Distributor has mailed a copy of the report. Field entries include *Sent to Client*, *Pending*, and *Failed. Sent to Client* means the Report Distributor received instructions to process the e-mail. *Pending* means the Report Distributor has not requested the job yet, it is not currently running on your computer, or there was a problem in distributing the e-mail.

Associated Schedule

The Associated Schedule field specifies the associated schedule for scheduled reports.

Output Language

The Output Language list specifies the language used in the report tables and charts: English or French.

When you click View, the client-side Report Writer (Web page) retrieves the data files from the 6110 CCM Server and re-creates the data set on your computer. It starts Excel and displays the report spreadsheet and graph. If you click View to open a second report, Report Writer displays it in the same Excel session.

You can graph other results by highlighting one or more columns of data in the spreadsheet and using the Excel Chart Wizard. You can also use the Excel chart wizard to change the grid style.

While the report is open on your computer, you can save it to your local disc drive and e-mail it to others, or place it on a shared network drive for others to access.

If you e-mail reports to other users, the users must have Excel installed on their computers to view the reports.

What to do if data is missing from the reports

The prairieFyre Service compares the raw telephone system data to the configuration of the YourSite database and forward relevant files to the Structured Query Language (SQL) database in real-time. Reports are run based on the data in the SQL database.

NOTE: 6110 CCM associations are based on database teams and groups. In programming the YourSite Database, you must create agent IDs and associate the agents to employees and to agent groups. You must associate the agent groups to the queues for which they answer calls. You must associate the employees to employee groups and the queues to queue groups. You must create these associations in the database in order to view real-time data and report on these devices. If you are reporting on extensions, trunks, DNIS numbers, and account codes, you must add these devices to the YourSite Database and associate the extensions to extension groups, trunks to trunk groups, and DNIS numbers to DNIS groups.

If you run a report and notice that the data for a particular device is missing from the report output, verify the device is programmed in the telephone system and in the YourSite Database. If you determine the device is missing from the database, add it to the database and use the Summarize Data command (on the Management Console program) to update the prairieFyre Service and the SQL database with the complete telephone system data stored on the local hard drive. You can then produce reports on the device.

Deleting reports

You can delete reports individually in Report Inbox or by date in the Inbox Manager program.

To delete all reports submitted on a given date:

1. Click **Report Inbox**=>**Inbox Manager**.
   Figure 7-17 appears.
2. Select a date range for deleting reports.
3. Click **Delete**.
   Inbox Manager deletes *all* reports submitted on the date(s) in question.

Figure 7-17 Inbox Manager main screen

Deleting Scheduled Reports

Inbox Manager does not delete reports you schedule to run in the future. For example, suppose you submit a schedule on Monday, October 18, 1999 for a report generated each Tuesday at 18:45 hours. If you open Inbox Manager on the morning of Tuesday October 19, 1999 and delete all reports submitted on Monday, October 18, the report scheduled for 18:45 hours on Tuesday will run and appear in your report inbox.

NOTE: Report Writer deletes all reports that are 30 days or older from your report inbox. For run-on-demand reports, the request date governs the reports age. For scheduled reports, the date the system generates the report governs the reports age. You save any reports you want to retain beyond 30 days to your hard drive or network home directory.

licence violations

NOTE: An employee is a physical person being tracked in your call center. Employees can have multiple agent IDs. The number of employees you program in the YourSite Database must be consistent with your software licence. If you have more employees programmed than your licence permits, "[licence Is In Violation of Max Agents Allowed]" will appear in place of your company name on the 6110 CCM user interface (UI) and on any reports you generate.

Report Distributor

The Report Distributor application prints and e-mails your reports and displays the status of your printing and mailing jobs. It runs in the system tray on your client computer and must be running at all times in order to print and e-mail reports automatically.

You must have a mail client installed in order for Report Distributor to e-mail reports. In addition, you must inform Report Distributor of the address of the SMTP mail server over which you will relay e-mails, and you must enter a *valid* e-mail address.

To configure Report Distributor to e-mail reports:

1. On your system tray, right-click the **Report Distributor** icon and click **Mail Configuration**. Figure 7-18 Mail configuration appears.
2. Under **SMTP server address**, type your mail server address.
3. Under **Mail address to use in from field**, type your e-mail address.

At one-minute intervals, Report Distributor seeks print and e-mail jobs and attempts to process the first 10 jobs in order of request date. The sort order is run-on-demand reports, scheduled reports, and then age.

NOTE: Report Distributor runs under the identity of the logged on user and prints to the default printer as defined by the logged on user. A user who logs on but does not have a default printer setup, or does not have adequate permissions to use the default printer causes Report Distributor to fail each print job that it attempts to action.

Figure 7-18 Mail configuration

To enable the automatic printing of reports and e-mails:

1. On your system tray, right-click the **Report Distributor** icon and click **6110 CCM Sites**. Figure 7-19 appears.
2. Right-click **Sites** and click **Add**. Report Distributor needs to know which 6110 CCM Server to query for historical data.

If the Report Distributor icon is not displayed on the system tray, click Start=>prairieFyre Software Inc.=>6110 CCM Report Distributor to start Report Distributor and click Options=>6110 CCM Sites.

Figure 7-19 6110 CCM sites

Figure 7-20 appears.
3. Type a descriptive name.
4. Type a valid 6110 CCM URL, and your 6110 CCM user name and password, and click **OK**.
5. Optionally repeat steps 2 to 4 to add a second URL.
6. Right-click a site, click **Set Default** to specify the site as default target server   address for Report Distributor, and click **Close**.

To view the default 6110 CCM Server address and the status of a report distributed by Report Distributor:

1. Right-click the Report Distributor icon and click **Restore**.

Figure 7-20 Site properties

Figure 7-21 appears.

Figure 7-21 displays the default 6110 CCM Server address and the status of a report printed and e-mailed by Report Distributor.

The Errors tab provides details on failed print or e-mail jobs. When the error box is full, it clears itself and displays a message with the date and time it was cleared.

Figure 7-21 Status messages
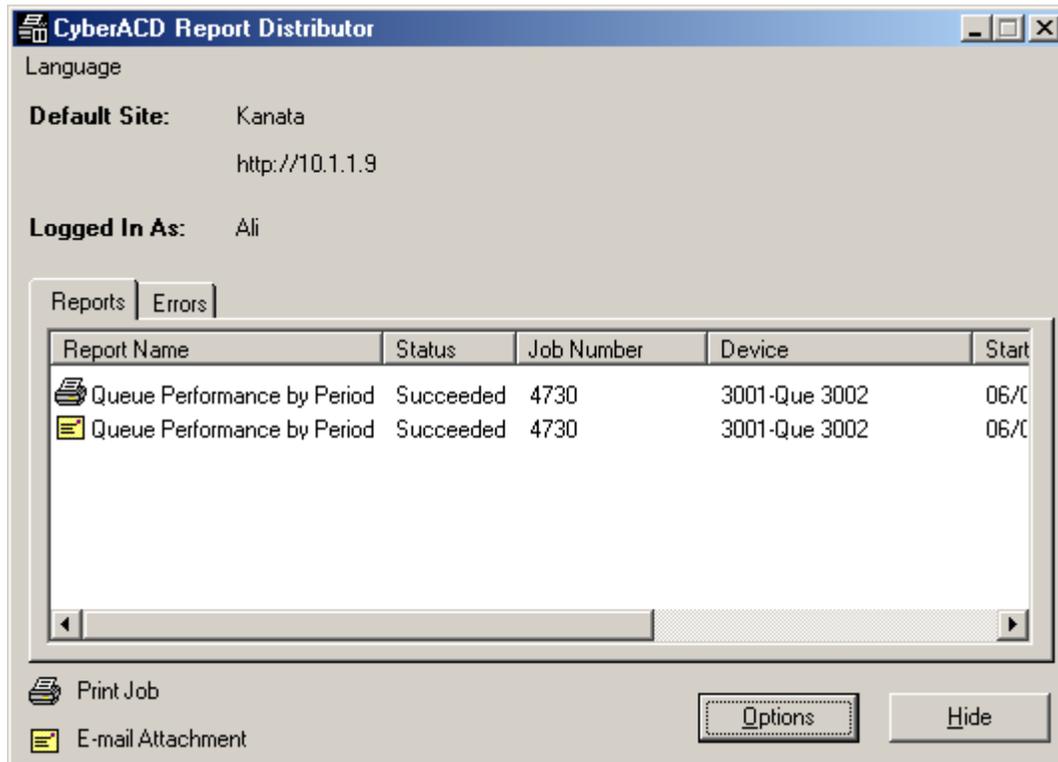
Report types

There are eight main divisions of report types: queue reports, agent reports, employee reports, team reports, trunk reports, extension reports, 4Sight reports, and DNIS reports.

Report parameters

You specify the following report parameters on the Queue tab of the YourSite Database application.

Calls Abandoned Parameter

The Calls Abandoned Parameter specifies the value which determines whether a call is a Short Abandoned Call or a Long Abandoned Call. If the abandon time is less than the Call Abandoned Parameter, then it is a Short Abandoned Call. If the abandon time is more than the Call Abandoned Parameter, then it is a Long Abandoned Call.

You assign the Calls Abandoned Parameter (called the Queue Short Abandon Time) values to ACD queues in the YourSite Database.

Callers can abandon after they reach a trunk (before they reach the ACD queue) or while they are in queue waiting for an available agent (either before or after the short abandon time you specify).

Calls Abandoned (Short)

The Call Abandoned (Short) calls abandon with an abandon time less than the Call Abandoned Parameter. These abandoned calls are not included in the call statistics.

Calls Abandoned (Long)

The Call Abandoned (Long) calls abandon with an abandon time greater than the Call Abandoned Parameter. These abandoned called are included in call statistics.

Service Level Time

The 6110 CCM reporting and real-time applications use the service level time in calculating the service level percentage.

Service Level

The *service level* is the total number of calls which are answered, abandoned, and interflowed *before a defined threshold time (Service Level Time)*, compared to the total number of calls answered, abandoned, and interflowed. It's the average length of time a caller who has obtained a trunk waits for an available agent. The service level = (Calls Answered + Long Calls Abandoned + Long Interflow) within the Service Level Time ÷ (Calls Answered + Long Calls Abandoned + Long Interflow).

Service Level Percent

The *service level percent* is the proportion of calls, expressed as a percentage, which are answered, abandoned, and interflowed within a defined threshold time compared to the total number of calls answered or abandoned (after the short abandon time).

Service Level Time

The *service level time* is the threshold time used in calculating the service level percentage, such as 90 percent of calls answered in 20 seconds. The service level percentage and service level time are parameters you define as your service objective.

Answered By

The Answered By parameter specifies the answering priority of up to four agent groups.

Calls Offered

All calls received by the ACD queue, regardless of how they are handled or routed, are referred to as the *calls offered*. This includes Calls Answered, Long Interflowed Calls, and Long Abandoned Calls. Calls Requeued, Path Unavailable Calls, Short Abandoned Calls and Short Interflowed Calls are not considered. Telephone system data on the calls offered and average talk time is used by the Erlang C equation in calculating the agents required.

Calls Answered

An *answered call* is a call picked up by a live agent. Calls that listen to in queue RAD messages are not considered to be answered until an agent connects.

Calls Requeued

When an agent receives an ACD call and fails to pick up the call after X seconds or X rings, the telephone system places the agent in Make Busy. The telephone system requeues the call (places the call back in the same queue) and offers it to the next available agent. This requeued e-mail message has priority over the others and will be the next e-mail message answered.

Calls Interflowed

The term *interflow* refers to a mechanism that directs a queue-delayed call to voice mail or to another answering point. If the interflow timer expires, the call is removed from the ACD queue and re-directed to yet another answering point, usually another voice mail box. The *interflow time* runs independently of the overflow time.

Short Calls Interflowed

If, when the Interflow call is compared to the Calls Abandoned Parameter, the duration of the call is less than the parameter, it is considered a Short Call Interflowed. A Short Call Interflow is considered to be a Path Unavailable Call.

Long Calls Interflowed

If, when the Interflow call is compared to the Calls Abandoned Parameter, the duration of the call is more than the parameter, it is considered a Long Call Interflowed.

Answer %

The term answer percent refers to the percentage of calls answered compared to the total number of calls offered to the ACD queue.

Queue Reports

Queue Reports on individual queues or queue groups reflect the service experienced by callers and caller behavior.

The list of queue reports is as follows:

Performance Reports
- Queue and Queue Group Performance by Period Reports
- Queue and Queue Group Performance by Day of the Week
- Queue and Queue Group Performance by Day of the Month
- Queue and Queue Group Performance by Month
- Queue and Queue Group Performance by Account Code Reports
- Queue and Queue Group Performance by DNIS Reports
- Queue and Queue Group Performance by Agent Report
- Queue Group Performance by Queue Reports

Internal/External Reports
- Queue and Queue Group Internal/External Call Counts by Period Reports

Spectrum by Period Reports
- Queue and Queue Group Abandon Spectrum by Period Reports
- Queue and Queue Group Answer Spectrum by Period Reports
- Queue and Queue Group Interflow Spectrum by Period Reports
- Queue and Queue Group Talk Spectrum by Period Reports

Spectrum by Day of the Week Reports
- Queue and Queue Group Abandon Spectrum by Day of the Week
- Queue and Queue Group Answer Spectrum by Day of the Week Reports
- Queue and Queue Group Interflow Spectrum by Day of the Week Reports
- Queue and Queue Group Talk Spectrum by Day of the Week

Spectrum by Queue Reports
- Queue Group Abandon Spectrum by Queue Reports
- Queue Group Answer Spectrum by Queue Reports
- Queue Group Interflow Spectrum by Queue Reports
- Queue Group Talk Spectrum by Queue Reports

By Queue Reports
- Queue Group by Queue with Agent Information Report

ANI Reports
- Queue and Queue Group ANI by Area Code Reports
- Queue and Queue Group ANI Abandon Reports

Performance Reports

Performance by Period, Day of the Week, Day of the Month, and Month

The Queue and Queue Group Performance by Period Reports show the call activity of a queue and queue group across 15-, 30-, or 60-minute intervals for the shift duration and day(s) you specify.

Queue and Queue Group Performance by Day of the Week shows the performance of each queue or queue group for each day of one week.

Queue and Queue Group Performance by Day of the Month shows the performance of each queue or queue group for each day of one month.

Queue and Queue Group Performance by Month shows the performance of each queue or queue group for one month.

The following Figure illustrates the fields included in the Queue and Queue Group Performance by Period Reports.

Activity Period	Calls Offered	Calls Answered	Calls Abandoned (Short)	Calls Abandoned (Long)	Calls Interflowed	Calls Requeued	Answered By ACD Group1	Answered By ACD Group2
14:15	23	23	0	0	0	0	23	0
14:30	21	21	0	0	0	0	21	0

Answered By ACD Group3	Answered By ACD Group4	Avg Speed of Answer h:mm:ss	Avg Delay to Abandon h:mm:ss	Avg Delay to Interflow h:mm:ss	Total Talk Time h:mm	Average Talk Time h:mm:ss	Service Level %	Answer %
0	0	0:00:27	0:00:00	0:00:00	1:26	0:03:44	87.0	100.0
0	0	0:00:40	0:00:00	0:00:00	2:29	0:07:08	90.5	100.0

Queue and Queue Group Performance Reports provide the following information.

Report Field	Description
Activity Period	the interval of the report in hours and minutes, by day of the week, by day of the month, or by month
Calls Offered	the count of all calls offered to the ACD queue (answer, plus long abandon, plus long interflow)
Calls Answered	the count of all calls answered
Calls Abandoned (Short)	the count of all calls abandoned before the short abandon time
Calls Abandoned (Long)	the count of all calls abandoned after the short abandon time
Calls Interflowed	the count of al calls interflowed
Calls Requeued	the count of all calls requeued back into the ACD queue - if an agent fails to pick up a call, the telephone system places the call back in the same queue and it is picked up by the first available agent
Answered By ACD Group1	the count of all calls answered by the first answer point
Answered By ACD Group2	the count of all calls answered by the second answer point
Answered By ACD Group3	the count of all calls answered by the third answer point
Answered By ACD Group4	the count of all calls answered by the fourth answer point
Avg Speed of Answer (h:mm:ss)	the average delay before the call is answered

Avg Delay to Abandon (h:mm:ss)   the average elapsed time before the call is abandoned
Avg Delay to Interflow (h:mm:ss) the average elapsed time before the call interflows
Total Talk Time (h:mm)   the total duration for calls answered
Average Talk Time (h:mm:ss)   the average duration for calls answered
Service Level%   the percentage of calls answered within a specified threshold
Answer%   the percentage of offered calls answered

Performance by Account Code Reports

Queue and Queue Group Performance by Account Code Reports show the use of account codes.

Queue and Queue Group Performance by Account Code Reports provide the following information.

Report Field	Description
Account Code Number	the account code tagged to the ACD queue call
ACD Calls Answered	the count of all answered calls associated with the above account code number
Total Speed of Answer (h:mm:ss)	the total delay before the call is answered
Avg Speed of Answer (h:mm:ss)	the average delay before the call is answered
Total Talk Time (h:mm:ss)	the total duration for calls answered
Average Talk Time (h:mm:ss)	the average duration for calls answered

NOTE: The prairieFyre Maintenance Manager deletes ANI records that are 15 days or older each night at 2:00 A.M. In addition, ANI records are deleted chronologically when the number of records in the database exceeds 10,000.

Performance by DNIS Reports

The Queue and Queue Group Performance by DNIS Reports show the call traffic on toll-free lines, and the treatment callers who dial the toll-free lines receive for the day(s) you specify. The reports show the statistics in hours, minutes, and seconds, and provide call counts for the toll-free line.

Dialed Number Identification Service (DNIS) is a feature of toll-free lines that identifies the telephone number the caller dials. Each toll-free line is tagged with a DNIS number.

The following Figure illustrates the fields included in the Queue and Queue Group Performance by DNIS Reports.

DNIS Number	Calls Offered	Calls Answered	Calls Abandoned (Short)	Calls Abandoned (Long)	Calls Interflowed	Calls Requeued	Avg Speed of Answer h:mm:ss
5200	23	23	0	0	0	0	0:00:27
5201	21	21	0	0	0	0	0:00:40

Max Speed of Answer h:mm:ss	Avg Delay to Abandon h:mm:ss	Max Delay to Abandon h:mm:ss	Avg Delay to Interflow h:mm:ss	Max Delay to Interflow h:mm:ss	Total Talk Time h:mm:ss	Average Talk Time h:mm:ss	Service Level %	Answer %
0:01:27	0:00:00	0:00:00	0:00:00	0:00:00	1:26	0:03:44	87.0	100.0
0:01:40	0:00:00	0:00:00	0:00:00	0:00:00	2:29	0:07:08	90.5	100.0

Queue and Queue Group Performance by DNIS Reports provide the following information.

Report Field	Description
DNIS Number	the DNIS number as programed in the YourSite Database
Calls Offered	the count of all calls offered to the ACD queue (answer, plus long abandon, plus long interflow)
Calls Answered	the count of all calls answered
Calls Abandoned (Short)	the count of all calls abandoned before the short abandon time
Calls Abandoned (Long)	the count of all calls abandoned after the short abandon time
Calls Interflowed	the count of al calls interflowed
Calls Requeued	the count of all calls requeued back into the ACD queue - if an agent fails to pick up a call, the telephone system places the call back in the same queue and it is picked up by the first available agent
Avg Speed of Answer (h:mm:ss)	the average delay before the call is answered
Max Speed of Answer (h:mm:ss)	the maximum delay before the call is answered
Avg Delay to Abandon (h:mm:ss)	the average elapsed time before the call is abandoned
Max Delay to Abandon (h:mm:ss)	the maximum delay before the call is abandoned
Avg Delay to Interflow (h:mm:ss)	the average elapsed time before the call interflows
Max Delay to Interflow (h:mm:ss)	the maximum delay before the call interflows
Total Talk Time (h:mm:ss)	the total duration for calls answered
Average Talk Time (h:mm:ss)	the average duration for calls answered
Service Level%	the percentage of calls answered within a specified threshold
Answer%	the percentage of offered calls answered

Performance by Agent Report

The Queue Group Performance by Agent Report shows the call performance of each agent and therefore permits comparison of one agent's performance against other agents' performances.

Queue and Queue Group Performance by Agent Reports provide the following information.

Report Field	Description
Agent Number	the agent ID entered by the agent
Agent Name	the name associated with the agent ID in YourSite
ACD Calls Answered	the count of all ACD calls answered
Total Speed of Answer (h:mm:ss)	the total delay before the call is answered
Average Speed of Answer (h:mm:ss)	the average delay before the call is answered
Total Talk Time (h:mm)	the total duration for calls answered
Average Talk Time (h:mm:ss)	the average duration for calls answered

Performance by Queue Reports

The Queue Group Performance by Queue Report compares the workload distribution across the queues in a queue group for the shift duration and day(s) you specify. It reports the statistics in hours, minutes, and seconds, and provides call counts across queues.

ACD Queue	ACD Queue Name	Calls Offered	Calls Answered	Calls Abandoned (short)	Calls Abandoned (long)	Calls Interflowed	Calls Requeued	Answered By ACD Group1
P001	BIL	532	504	0	28	0	0	504
P009	SPANISH	127	124	0	3	0	0	124

Answered By ACD Group2	Answered By ACD Group3	Answered By ACD Group4	Avg Speed of Answer h:mm:ss	Avg Delay to Abandon h:mm:ss	Avg Delay to Interflow h:mm:ss	Total Talk Time h:mm	Average Talk Time h:mm:ss	Service Level %	Answer %
0	0	0	0:00:59	0:01:14	0:00:00	62:14	0:07:24	84.6	94.7
0	0	0	0:01:05	0:01:16	0:00:00	11:47	0:05:42	79.5	97.6

Queue Group Performance by Queue Reports provide the following information.

Report Field	Description
ACD Queue	the queues that are members of a queue group
Calls Offered	the count of all calls offered to the ACD queue (answer, plus long abandon, plus long interflow)
Calls Answered	the count of all calls answered
Calls Abandoned	the count of all calls abandoned
Calls Interflowed	the count of al calls interflowed
Answered By ACD Group1	the count of all calls answered by the first answer point
Answered By ACD Group2	the count of all calls answered by the second answer point
Answered By ACD Group3	the count of all calls answered by the third answer point
Answered By ACD Group4	the count of all calls answered by the fourth answer point
Avg Speed of Answer (h:mm:ss)	the average delay before the call is answered
Avg Delay to Abandon (h:mm:ss)	the average elapsed time before the call is abandoned
Avg Delay to Interflow (h:mm:ss)	the average elapsed time before the call interflows
Total Talk Time (h:mm:ss)	the total duration for calls answered
Average Talk Time (h:mm:ss)	the average duration for calls answered
Service Level%	the percentage of calls answered within a specified threshold
Answer%	the percentage of offered calls answered

Internal External Reports

Internal/External Call Counts by Period

The Queue Internal/External Call Counts by Period shows internal and external call activity of a queue across 15-, 30-, or 60-minute intervals for the shift duration and day(s) you specify.

The Queue Group Internal/External Call Counts by Period shows internal and external call activity of a queue group across 15-, 30-, or 60-minute intervals for the shift duration and day(s) you specify.

Here is a brief definition of external and internal calls:

Internal Out is a call that *you make* from the office to a destination within the office.
External Out is a call that *you make* from the office to a destination outside the office.
Internal NonACD is a nonACD call that *you receive* in the office from an origin within the office.
External NonACD is a nonACD call that *you receive* in the office from an origin outside the office.
Internal ACD is an ACD call that originates from *inside* the office to a destination within the office.
External ACD is an ACD call that originates from *outside* the office with a destination within the office.

Report Field	Description
Activity Period	the interval of the report in hours and minutes, by day of the week, by day of the month, or by month
Calls Offered	the count of all calls offered to the ACD queue (answered, plus long abandon, plus long interflow)
Calls Answered	the count of all calls answered
Internal Calls Answered	the count of all internal calls answered
External Calls Answered	the count of all external calls answered
Calls Abandoned [short]	the count of calls that abandoned before the short abandon time
Calls Abandoned [long]	the count of calls that abandoned after the short abandon time
Calls Interflowed	the count of all calls interflowed
Calls Requeued	the count of all calls requeued back into the ACD queue - if an agent fails to pick up a call, the telephone system places the call back in the same queue and it is picked up by the first available agent
Total Internal Talk Time	the average duration of internal calls answered
Total External Talk Time	the average duration of external calls answered
Avg Talk Time for Internal Calls	the average duration for internal calls answered
Avg Talk Time for External Calls	the average duration for external calls answered
Avg Speed of Answer (h:mm:ss)	the average delay before the call is answered
Avg Delay to Abandon (h:mm:ss)	the average elapsed time before the call is abandoned
Avg Delay to Interflow (h:mm:ss)	the average elapsed time before the call interflows
Total Talk Time (h:mm:ss)	the total duration for answered calls
Average Talk Time (h:mm:ss)	the average duration for answered calls
Service Level%	the percentage of calls answered within a specified threshold
Answer%	the percentage of offered calls answered

Spectrum by Period Reports

Abandon, Answer, Interflow, and Talk Spectrum by Period Reports

The spectrum reports provide a frequency distribution of calls abandoned, answered, or interflowed based on a defined time scale.

For each time period, the Count < x sec field reflects the count of all calls for that interval and all preceding intervals. The% of Total field reflects the percentage of all calls for that interval and all preceding intervals.

There are eight Queue and Queue Group Spectrum by Period Reports:

Queue and Queue Group Abandon Spectrum by Period Report
Queue and Queue Group Answer Spectrum by Period Report
Queue and Queue Group Interflow Spectrum by Period Report
Queue and Queue Talk Spectrum by Period Report

Abandon Spectrum by Period Reports

The Queue Abandon Spectrum by Period Report provides a frequency distribution of calls abandoned on a queue across 15-, 30-, or 60-minute intervals for the shift duration and day(s) you specify.

The Queue Group Abandon Spectrum by Period Report provides a frequency distribution of calls abandoned on a queue group across 15-, 30-, or 60-minute intervals for the shift duration and day(s) you specify.

The following Figure illustrates the fields included in the Queue and Queue Group Abandon Spectrum by Period Reports.

Activity Period	Calls Abandoned	Max Delay to Abandon	Count < 5 sec	% of Calls Abandoned	Count < 10 sec	% of Calls Abandoned	Count < 15 sec	% of Calls Abandoned	Count < 20 sec	% of Calls Abandoned
13:15	9	105	0	0.0	0	0.0	3	33.3	3	33.3
13:30	0	0	0	0.0	0	0.0	0	0.0	0	0.0

Count < 30 sec	% of Calls Abandoned	Count < 40 sec	% of Calls Abandoned	Count < 60 sec	% of Calls Abandoned	Count < 80 sec	% of Calls Abandoned	Count < 120 sec	% of Calls Abandoned	Count >= 120 sec	% of Calls Abandoned
6	66.7	6	66.7	6	66.7	6	66.7	9	100.0	0	0.0
0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

The following are the first three fields of the Queue and Queue Group Abandon Spectrum by Period Reports.

Report Field	Description
Activity Period	the interval of the report in hours and minutes, by day of the week, by day of the month, or by month
Calls Abandoned	the count of all calls abandoned for the activity period
Max Delay to Abandon	the maximum delay to abandon for the activity period

The remaining fields of the Queue and Queue Group Abandon Spectrum by Period Reports provide a frequency distribution of call patterns based on a defined time scale (5, 10, 15, 20, 30, 40, 60, 80, 120, and >120 seconds). For each time period, the Count < x sec field reflects the count of all calls for that interval and all preceding intervals. The% of Total field reflects the percentage of all calls for that interval and all preceding intervals.

NOTE: For the >120 seconds time period, the Count < x sec field reflects the count of all calls for that interval only.

Answer Spectrum by Period Reports
The Queue Answer Spectrum by Period Report provides a frequency distribution of calls answered on a queue across 15-, 30-, or 60-minute intervals for the shift duration and day(s) you specify.

The Queue Group Answer Spectrum by Period Report provides a frequency distribution of calls answered on a queue group across 15-, 30-, or 60-minute intervals for the shift duration and day(s) you specify.

The following Figure illustrates the fields included in the Queue and Queue Group Answer Spectrum by Period Reports.

Activity Period	Calls Answered	Max Speed of Answer	Count < 5 sec	% of Calls Answered	Count < 10 sec	% of Calls Answered	Count < 15 sec	% of Calls Answered	Count < 20 sec	% of Calls Answered
9:00	27	329	9	33.3	24	88.9	25	92.6	25	92.6
9:15	36	104	13	36.1	26	72.2	32	88.9	34	94.4

Count < 30 sec	% of Calls Answered	Count < 40 sec	% of Calls Answered	Count < 60 sec	% of Calls Answered	Count < 80 sec	% of Calls Answered	Count < 120 sec	% of Calls Answered	Count >= 120 sec	% of Calls Answered
25	92.6	25	92.6	25	92.6	26	96.3	26	96.3	1	3.7
34	94.4	34	94.4	34	94.4	34	94.4	36	100.0	0	0.0

The following are the first three fields of the ACD Queue and Queue Group Answer Spectrum by Period Reports.

Report Field	Description
Activity Period	the interval of the report in hours and minutes, by day of the week, or by day of the month
Calls Answered	the count of all calls answered for the activity period
Max Speed of Answer	the maximum speed of answer for the activity period

The remaining fields of the Queue and Queue Group Answer Spectrum by Period Reports provide a frequency distribution of call patterns based on a defined time scale (5, 10, 15, 20, 30, 40, 60, 80, 120, and >120 seconds). For each time period, the Count < x sec field reflects the count of all calls for that interval and all preceding intervals. The% of Total field reflects the percentage of all calls for that interval and all preceding intervals.

NOTE: For the >120 seconds time period, the Count < x sec field reflects the count of all calls for that interval only.

Interflow Spectrum by Period Reports
The Queue Interflow Spectrum by Period Report provides a frequency distribution of calls interflowed on a queue across 15-, 30-, or 60-minute intervals for the shift duration and day(s) you specify.

The Queue Group Interflow Spectrum by Period Report provides a frequency distribution of calls interflowed on a queue group across 15-, 30-, or 60-minute intervals for the shift duration and day(s) you specify.

The following Figure illustrates the fields included in the Queue and Queue Group Interflow Spectrum by Period Reports.

Activity Period	Calls Interflowed	Max Delay to Interflow	Count < 5 sec	% of Calls Interflowed	Count < 10 sec	% of Calls Interflowed	Count < 15 sec	% of Calls Interflowed	Count < 20 sec	% of Calls Interflowed
9:00	1	279	0	0.0	0	0.0	0	0.0	0	0.0
9:15	2	389	0	0.0	0	0.0	0	0.0	0	0.0

Count < 30 sec	% of Calls Interflowed	Count < 40 sec	% of Calls Interflowed	Count < 60 sec	% of Calls Interflowed	Count < 80 sec	% of Calls Interflowed	Count < 120 sec	% of Calls Interflowed	Count >= 120 sec	% of Calls Interflowed
0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0
0	0.0	0	0.0	0	0.0	1	50.0	0	0.0	1	50.0

The following are the first three fields of the ACD Queue and Queue Group Interflow Spectrum by Period Reports.

Report Field	Description
Activity Period	the interval of the report in hours and minutes, by day of the week, or by day of the month
Calls Interflowed	the count of all calls interflowed for the activity period
Max Delay to Interflow	the maximum delay to Interflow for the activity period

The remaining fields of the Queue and Queue Group Interflow Spectrum by Period Reports provide a frequency distribution of call patterns based on a defined time scale (5, 10, 15, 20, 30, 40, 60, 80, 120, and >120 seconds). For each time period, the Count < x sec field reflects the count of all calls for that interval and all preceding intervals. The% of Total field reflects the percentage of all calls for that interval and all preceding intervals.

NOTE: For the >120 seconds time period, the Count < x sec field reflects the count of all calls for that interval only.

Talk Spectrum by Period

The Queue Talk Spectrum by Period Report provides a frequency distribution of call talk on a queue across 15-, 30-, or 60-minute intervals for the shift duration and day(s) you specify.

The Queue Group Talk Spectrum by Period Report provides a frequency distribution of call talk on a queue group across 15-, 30-, or 60-minute intervals for the shift duration and day(s) you specify.

The following are the first three fields of the Queue and Queue Group Talk Spectrum by Period Reports.

Report Field	Description
Activity Period	the interval of the report in hours and minutes, by day of the week, or by day of the month
Calls Answered	the count of all calls answered for the activity period
Max Duration	the duration of all calls answered for the activity period

The remaining fields of the Queue and Queue Group Talk Spectrum by Period Reports provide a frequency distribution of call patterns based on a defined time scale (<10, <60, <180, <240, <300, <360, <420, <480, <540, and >541 seconds). For each time period, the Count < x sec field reflects the count of all calls for that interval and all preceding intervals. The% of Calls Answered field reflects the percentage of all calls for that interval and all preceding intervals.

NOTE: For the >541 seconds time period, the Count<x sec field reflects the count of all calls for that interval only.

Spectrum by Day of the Week Reports

Abandon, Answer, Interflow, and Talk Spectrum by Day of the Week Reports

The Spectrum by Day of the Week Reports provide a frequency distribution of call talk on a queue or queue group across the days of one week.

Abandon Spectrum by Day of the Week Reports

The Queue Abandon Spectrum by Day of the Week Report provides a frequency distribution of calls abandoned on a queue across 15-, 30-, or 60-minute intervals for the days of one week.

The Queue Group Abandon Spectrum by Day of the Week Report provides a frequency distribution of calls abandoned on a queue group across 15-, 30-, or 60-minute intervals for the days of one week.

The following are the first three fields.

Report Field	Description
Activity Period	the interval of the report in hours and minutes, by day of the week, or by day of the month
Calls Abandoned	the count of all calls abandoned reported for the area code
Max Delay to Abandon	the maximum delay to abandon for the activity period

The remaining fields of the Queue and Queue Group Abandon Spectrum by Day of the Week Reports provide a frequency distribution of call patterns based on a defined time scale (5, 10, 15, 20, 30, 40, 60, 80, 120, and >120 seconds). For each time period, the Count < x sec field reflects the count of all calls for that interval and all preceding intervals. The% of Total field reflects the percentage of all calls for that interval and all preceding intervals.

NOTE: For the >120 seconds time period, the Count < x sec field reflects the count of all calls for that interval only.

Answer Spectrum by Day of the Week Reports

The Queue Answer Spectrum by Day of the Week Report provides a frequency distribution of calls answered on a queue across 15-, 30-, or 60-minute intervals for the days of one week.

The Queue Group Answer Spectrum by Day of the Week Report provides a frequency distribution of calls answered on a queue group across 15-, 30-, or 60-minute intervals for the days of one week.

The following are the first three fields.

Report Field	Description
Activity Period	the interval of the report in hours and minutes, by day of the week, or by day of the month
Calls Answered	the count of all calls answered for the activity period
Max Speed of Answer (h:mm:ss)	the maximum delay before the call is answered

The remaining fields of the Queue and Queue Group Answer Spectrum by Day of the Week Reports provide a frequency distribution of call patterns based on a defined time scale (5, 10, 15, 20, 30, 40, 60, 80, 120, and >120 seconds). For each time period, the Count < x sec field reflects the count of all calls for that interval and all preceding intervals. The% of Total field reflects the percentage of all calls for that interval and all preceding intervals.

NOTE: For the >120 seconds time period, the Count < x sec field reflects the count of all calls for that interval only.

Interflow Spectrum by Day of the Week Reports

The Queue Interflow Spectrum by Day of the Week Report provides a frequency distribution of calls interflowed on a queue across 15-, 30-, or 60-minute intervals for the days of one week.

The Queue Group Interflow Spectrum by Day of the Week Report provides a frequency distribution of calls interflowed on a queue group across 15-, 30-, or 60-minute intervals for the days of one week.

The following are the first three fields.

Report Field	Description
Activity Period	the interval of the report in hours and minutes, by day of the week, or by day of the month
Calls Interflowed	the count of all calls interflowed reported for the area code
Max Delay to Overflow	the maximum delay to overflow for the activity period

The remaining fields of the Queue and Queue Group Interflow Spectrum by Day of the Week Reports provide a frequency distribution of call patterns based on a defined time scale (5, 10, 15, 20, 30, 40, 60, 80, 120, and >120 seconds). For each time period, the Count < x sec field reflects the count of all calls for that interval and all preceding intervals. The% of Total field reflects the percentage of all calls for that interval and all preceding intervals.

NOTE: For the >120 seconds time period, the Count < x sec field reflects the count of all calls for that interval only.

Talk Spectrum by Day of the Week Reports

The Queue Talk Spectrum by Day of the Week Report provides a frequency distribution of call talk on a queue across 15-, 30-, or 60-minute intervals for the days of one week.

The Queue Group Talk Spectrum by Day of the Week Report provides a frequency distribution of call talk on a queue group across 15-, 30-, or 60-minute intervals for the days of one week.

Report Field	Description
Activity Period	the interval of the report in hours and minutes, by day of the week, or by day of the month
Calls Answered	the count of all calls answered for the activity period
Max Duration	the duration of all calls answered for the activity period

The remaining fields of the Queue and Queue Group Talk Spectrum by Day of the Week Reports provide a frequency distribution of call patterns based on a defined time scale (<10, <60, <180, <240, <300, <360, <420, <480, <540, and >541 seconds). For each time period, the Count < x sec field reflects the count of all calls for that interval and all preceding intervals. The% of Calls Answered field reflects the percentage of all calls for that interval and all preceding intervals.

NOTE: For the >541 seconds time period, the Count<x sec field reflects the count of all calls for that interval only.

Spectrum by Queue Reports

Abandon, Answer, Interflow and Talk Spectrum by Queue Reports

Queue Spectrum by Queue Reports provides a frequency distribution of call talk on a queue across intervals from 1-10.

The Queue Group Spectrum by Queue Report provides a frequency distribution of call talk on a queue group across intervals from 1-10.

All of the preceding spectrum report fields are the same for Queue Group Abandon, Answer, Interflow and Talk Spectrum by Queue Reports with one exception. The Max field alters depending on the report.

The following are the first three fields of the Queue and Queue Group Spectrum by Queue Reports.

Report Field	Description
ACD Queue	the ACD queue for which the agent answered calls
ACD Queue Name	the name of the ACD queue for which the agent answers calls
Calls Answered	the count of all calls answered for the activity period

The next field depends on the report:
Queue and Queue Group Abandon Spectrum by Queue Reports have the Max Delay to Abandon field.
Queue and Queue Group Answer Spectrum by Queue Reports have the Max Speed of Answer field.
Queue and Queue Group Interflow Spectrum by Queue Reports have the Max Delay to Overflow field.
Queue and Queue Group Talk Spectrum by Queue Reports Max Duration field.

Report Field	Description
Max Delay to Abandon (h:mm:ss)	the maximum delay before the call is abandoned
Max Speed of Answer (h:mm:ss)	the maximum delay before the call is answered
Max Delay to Overflow (h:mm:ss)	the maximum delay to overflow for the activity period
Max Duration (h:mm:ss)	the duration of all calls answered for the activity period

The remaining fields of the Queue and Queue Group Spectrum by Queue Reports provide a frequency distribution of call patterns based on a defined time scale (Spectral Interval 1-10). The Spectrum Interval field reflects the count of all calls for that interval and all preceding intervals. The % of Calls Answered field reflects the percentage of all calls for that interval and all preceding intervals.

NOTE: Spectrum Interval 10 reflects the count of all calls for that interval only.

ANI Reports

ANI by Area Code Reports

Queue and Queue Group ANI by Area Code Reports shows the call distribution across area codes.

Report Field	Description
Area Code	the area code reported by the ANI digits
Geographic Location	the region represented by the area code
Calls Offered	the count of all calls reported for the area code
ACD Calls Answered	the count of all calls answered reported for the area code
Calls Abandoned	the count of all calls abandoned reported for the area code
Calls Interflowed	the count of all calls interflowed reported for the area code
Total Talk Time (h:mm:ss)	the total duration for calls answered
Average Talk Time (h:mm:ss)	the average duration for calls answered
Avg Speed of Answer (h:mm:ss)	the average delay before the call is answered
Avg Delay to Abandon (h:mm:ss)	the average elapsed time before the call is abandoned
Avg Delay to Interflow (h:mm:ss)	the average elapsed time before the call interflows

ANI Abandon Reports

Queue and Queue Group ANI Abandon Reports shows the delay before a call was abandoned and the phone number.

Report Field	Description
Date/Time	the date and start time of the call record
Calling Line Number	the ten digit telephone number reported by the ANI digits
Delay to Abandon (h:mm:ss)	the elapsed time before the call is abandoned

Queue Group by Queue with Agent Information

Report Field	Description
Calls Answered	the count of all calls answered
Calls Requeued	the count of all calls requeued back into the ACD queue - if an agent fails to pick up a call, the telephone system places the call back in the same queue and it is picked up by the first available agent
Calls Interflowed	the count of all calls interflowed
Calls Unavailable	the count of all Path Unavailable Calls
Calls Abandoned (Long)	the count of all calls that were not answered resulting in the caller hanging up, where the call time is longer than the Short Abandoned Time setting for the queue
Avg Time to Answer ACD Call (h:mm:ss)	the average duration before ACD calls were answered
Calls Answered by Non Programmed Agent in 6110 CCM DB	the call count of calls answered by a device where that device was not in the list of agents in the agent groups specified in the database
Calls Answered by Direct Agent	the call count of calls answered by any agent
Avg Pure Talk Time for Direct Agent (h:mm:ss)	the average duration of calls when only one agent is involved (the call did not have to be transferred to anyone else)
Hold Count for Direct Agent	the hold count for all calls when only one agent is involved
Avg Hold Time by Direct Agent (h:mm:ss)	the average hold duration of all calls when only one agent is involved
ACD calls Trans/Conf to Another Agent	the call count of all calls that were transferred or conferenced to another agent, where that agent is in the database
Avg Talk Time for Trans/Conf to Agent (h:mm:ss)	the average duration of all calls that were transferred or conferenced
Hold Count for Trans\Conf to Agent	the hold count of all calls that were transferred or conferenced
Avg Hold Time by Trans/Conf to Agent (h:mm:ss)	the average hold duration of all calls that were transferred or conferenced
ACD Calls Trans/Conf to Non Programmed Agent in database	the call count of all calls that were transferred or conferenced to another agent, where that agent is not in the database
Max Calls Waiting	the maximum number of calls that waited on the path
Min Agents Available	the minimum number of agents who were logged on and not in WorkTimer, Make Busy or Do Not Disturb
Lgst Caller Waiting (h:mm:ss)	the greatest length of time a caller had to wait
Avg MakeBusy Time (h:mm:ss)	the average make busy time of all calls
Avg WorkTimer Time (h:mm:ss)	the average duration in WorkTimer
Avg Occupancy (h:mm:ss)	the average duration of time spend in any state other than idle

Agent Reports

Agent and agent group reports on individual agents and agent groups show how agents spend their time.

The list of agent reports is as follows:

Performance Reports
- Agent and Agent Group Performance by Period
- Agent and Agent Group Performance by Day of the Week
- Agent and Agent Group Performance by Day of the Month
- Agent and Agent Group Performance by Month
- Agent and Agent Group Performance by Account Code
- Agent and Agent Group Performance by Queue
- Agent and Agent Group Performance by Make Busy Code
- Agent Group Performance by Agent

Internal/External Reports
- Agent and Agent Group Internal/External Call Counts by Period
- Agent and Agent Group Internal/External Call Counts by Day of the Week
- Agent and Agent Group Internal/External Call Counts by Day of the Month
- Agent and Agent Group Internal/External Call Counts by Month

Event by Period Reports
- Agent and Agent Group Event by Period (Percent)
- Agent and Agent Group Event by Period (Percent) for SX-200
- Agent and Agent Group Event by Period (h:mm:ss)

Inbound/Outbound Trace Reports
- Agent Inbound Trace Report
- Agent Outbound Trace Report

Answering Agent Reports
- Agent by Answering Agent Group Report
- Answering Agent Group by Agent

Agent Shift Reports
- Agent Shift by Period

Performance Reports

Performance by Period, Day of the Week, Day of the Month, and Month Reports

The Agent and Agent Group Performance by Period Report shows the call handling performance of an agent and agent group across 15-, 30-, or 60-minute intervals for the shift duration and day(s) you specify.

The Agent and Agent Group Performance by Day of the Week Report shows the call handling performance of an agent and Agent Group across the days of one week.

The Agent and Agent Group Performance by Day of the Month Report shows the call handling performance of an agent and agent group across the days of the month.

The Agent and Agent Group Performance by Month Report shows the call handling performance of an agent and agent group across the month.

The following Figure illustrates the fields included in the Agent and Agent Group Performance by Period Reports.

Activity Period	ACD Calls Answered	NonACD Calls Answered	Calls Abandoned	Calls Outbound	Calls Requeued	Calls Transferred to Agent	Calls Transferred from Agent	Conference Calls	Account Codes
8:00	18	6	0	6	0	13	4	2	9
9:00	27	4	3	15	0	9	3	0	33

Total ACD Talk Time h:mm:ss	Average ACD Talk Time h:mm:ss	Total Non ACD Talk Time h:mm:ss	Average Non ACD Talk Time h:mm:ss	Total Outbound Talk Time h:mm:ss	Average Outbound Talk Time h:mm:ss
4:34:23	0:15:14	0:21:36	0:03:36	0:13:09	0:02:11
3:28:58	0:07:44	0:21:10	0:05:17	0:22:39	0:01:30

The Agent and Agent Group Performance by Period, Day of the Week, Day of the Month, and Month Reports provide the following information.

Report Field	Description
Activity Period	the interval of the report in hours and minutes, by day of the week, by day of the month, or by month
ACD Calls Answered	the count of all ACD queue calls answered for the period
Non ACD Calls Answered	the count of all non-ACD queue calls answered for the period
Calls Abandoned	the count of all calls abandoned at the agent's position
Calls Outbound	the count of all outbound calls
Calls Requeued	the count of all requeues at the agent's position - if an agent fails to pick up a call, the telephone system places the call back in the same queue and it is picked up by the first available agent
Calls Transferred to Agent	the count of all calls transferred to the agent's position
Calls Transferred from Agent	the count of all calls transferred from the agent's position
Conference Calls	the count of conference calls involving the agent
Account Codes	the count of account codes entered by the agent
Total ACD Talk Time (h:mm:ss)	the total duration for answered calls
Average ACD Talk Time (h:mm:ss)	the average duration for answered calls
Total NonACD Talk Time (h:mm:ss)	the total duration for non-ACD calls
Average NonACD Talk Time (h:mm:ss)	the average duration for non-ACD calls
Total Outbound Talk Time (h:mm:ss)	the total duration for outbound calls
Average Outbound Time (h:mm:ss)	the average duration for outbound calls

Performance by Account Code

The Agent and Agent Group Performance by Account Code shows the Account Codes entered.

The Agent and Agent Group Performance by Account Code provides the following information.

Report Field	Description
Account Code Number	the account code tagged to the ACD queue call
Name	the name of the account code
	If the Account Code 01 means the customer is happy, the name of the account code could be Happy Customer.
Account Codes Entered	the number of account codes entered
Total Talk Time (h:mm:ss)	the total duration for answered calls
Average Talk Time (h:mm:ss)	the average duration for answered calls

Performance by Queue Reports

The Agent Performance by Queue Reports show ACD statistics on the queues for which the agent answered calls, and the summary total of statistics for non-ACD calls involving the agent for the shift duration and day(s) you specify.

After you associate agents to agent groups in the YourSite Database, you can run an Agent Group Performance by Queue Report on a particular agent group.

The Agent Group Performance by Queue Reports show ACD statistics on the queues for which the agents in the agent group answered calls, and the summary total of statistics for non-ACD calls involving the agents (in the agent group) for the shift duration and day(s) you specify.

The following Figure illustrates the fields included in Agent and Agent Group Performance by Queue Reports.

ACD Queue	ACD Calls Answered	Total ACD Talk Time h:mm:ss	Average ACD Talk Time h:mm:ss	ACD Calls Requeued
P003	12	0:33:14	0:02:46	0
P004	208	34:21:50	0:09:54	0

NonACD Calls Answered	Outbound Calls	Calls Transferred to Agent	Calls Transferred from Agent	Conference Calls	Total Non ACD Talk Time h:mm:ss	Average Non ACD Talk Time h:mm:ss	Total Outbound Talk Time h:mm:ss	Average Outbound Talk Time h:mm:ss
24	134	99	15	0:00:04	1:19:13	0:03:18	3:35:28	0:01:36

The Agent and Agent Group Performance by Queue Report provides the following information. The first five fields contain multiple records reflecting the ACD queues serving the ACD Agent and Agent Group. The remaining fields contain a single record that reflects the totals irrespective of ACD queue.

Report Field	Description
ACD Queue	the ACD queue for which the agent answered calls
ACD Calls Answered	the count of all ACD queue calls answered
Total ACD Talk Time (h:mm:ss)	the total duration for answered calls
Average ACD Talk Time (h:mm:ss)	the average duration for answered calls
ACD Calls Requeued	the count of all requeues at the agent's position - if an agent fails to pick up a call, the telephone system places the call back in the same queue and it is picked up by the first available agent
Non ACD Calls Answered	the count of all non-ACD calls answered
Outbound Calls	the count of all outbound calls
Calls Transferred to Agent	the count of all calls transferred to the agent's position
Calls Transferred from Agent	the count of all calls transferred from the agent's position
Conference	the count of conference calls involving the agent
Total Non ACD Talk Time (h:mm:ss)	the total duration for non-ACD calls
Average ACD Talk Time (h:mm:ss)	the average duration for non-ACD calls
Total Outbound Time (h:mm:ss)	the total duration for outbound calls
Average Outbound Time (h:mm:ss)	the average duration for outbound calls

Performance by Make Busy Code

The Agent and Agent Group Performance by Make Busy Code shows the frequency and duration the agent and agent group is in Make Busy.

The Agent and Agent Group Performance by Make Busy Code provides the following information.

Report Field	Description
Make Busy Code	the make busy code tagged to the ACD queue call
Name	the name of the make busy code
	If the Make Busy Code 01 means the morning break, the name of the account code could be Morning Break.
Make Busy Count	the count of all make busy codes
Total Make Busy Time (h:mm:ss)	the total time the agent spends in the make busy state
Average Make busy Time (h:mm:ss)	the average time the agent spends in the make busy state

Performance by Agent Report

The Agent Group Performance by Agent Report shows the workload distribution across the agents in an agent group for the shift duration and day(s) you specify. It reports the statistics in hours, minutes, and seconds, and provides call counts across agents.

Agent Number	Agent Name	ACD Calls Answered	NonACD Calls Answered	Calls Outbound	Calls Requeued	Total Shift Time h:mm:ss	Total ACD Talk Time h:mm:ss	Average ACD Talk Time h:mm:ss
1259	Suman Bahser	30	9	6	0	40:05:03	1:32:26	0:03:04
1258	Sue Beauregard	17	16	8	0	32:10:00	1:12:20	0:04:15

Average Non ACD Talk Time h:mm:ss	Percent of Shift	Total Outbound Talk Time h:mm:ss	Average Outbound Talk Time h:mm:ss	Percent of Shift	Make Busy Time h:mm:ss	Percent of Shift
0:03:03	1.1	0:07:10	0:01:11	0.3	13:46:44	34.4
0:03:06	2.6	0:11:31	0:01:26	0.6	10:10:01	31.6

The Agent Group Performance by Agent Report provides the following information for individual agents in the group.

Report Field	Description
Agent Number	the agent ID entered by the agent
Agent Name	the name associated with the above agent ID in YourSite
ACD Calls Answered	the count of all ACD queue calls answered for the period
Non ACD Calls Answered	the count of all non-ACD calls answered for the period
Calls Outbound	the count of all outbound calls
Calls Requeued	the count of all requeues at the agent's position - if an agent fails to pick up a call, the telephone system places the call back in the same queue and it is picked up by the first available agent
Total Shift Time (h:mm:ss)	the total elapsed time logged for the agent
Total ACD Talk Time (h:mm:ss)	the total duration for answered calls
Average ACD Talk Time (h:mm:ss)	the average duration for calls where the caller dials an extension
Average Non ACD Talk Time (h:mm:ss)	the average duration for answered calls
Percent of Shift	the percentage of shift time representing ACD call activity
Total Non ACD Talk Time (h:mm:ss)	the total duration for non-ACD calls
Average ACD Talk Time (h:mm:ss)	the average duration for ACD calls
Percent of Shift	the percentage of shift time representing non-ACD call activity
Total Outbound Talk Time (h:mm:ss)	the total duration for outbound calls
Average Outbound Talk Time (h:mm:ss)	the average duration for outbound calls
Percent of Shift	the percentage of shift time representing outbound call activity
Make Busy Time (h:mm:ss)	the total duration spent in the make busy state

When a chart is created, the section labelled Other consists of Idle Time, DND Time, and Hold Time, to account for 100% of the performance time.

Internal/External Reports

Internal/External Call Counts by Period, Day of the Week, Day of the Month, Month, and Agent Reports

Here is a brief definition of external and internal calls:

Internal Out is a call that *you make* from the office to a destination within the office.
External Out is a call that *you make* from the office to a destination outside the office.
Internal NonACD is a call that *you receive* in the office from an origin within the office.
External NonACD is a call that *you receive* in the office from an origin outside the office.
Internal ACD is an ACD call that originates from *inside* the office to a destination within the office.
External ACD is an ACD call that originates from *outside* the office with a destination within the office.

There are nine Agent and Agent Group Internal/External Call Counts Reports:

Agent and Agent Group Internal/External Call Counts by Period Reports show internal and external call activity of an agent and agent group across 15-, 30-, or 60-minute intervals for the shift duration and day(s) you specify.

Agent and Agent Group Internal/External Call Counts by the Day of the Week Reports show internal and external call activity of an agent and agent group for the days of one week.
Agent and Agent Group Internal/External Call Counts by the Day of the Month Reports show internal and external call activity of an agent and agent group for the days of the month.
Agent and Agent Group Internal/External Call Counts by Month Reports show internal and external call activity of an agent and agent group for the month.

Agent Group Internal/External Call Counts by Agent Reports show internal and external call activity of each agent in the agent group.

All agent internal/external call count reports have the following headings:

Report Field	Description
ACD Calls Answered	the count of all ACD calls answered
Total Internal ACD Calls	the total number of all ACD calls that you receive that originate inside the office
Total Talk Internal ACD (h:mm:ss)	the total duration of all ACD calls that you receive that originate in the office
Avg Internal ACD Duration (h:mm:ss)	the average duration of an ACD call that you receive that originates in the office
Total External ACD Calls	the total number of all ACD calls that originate outside the office with a destination within the office
Total External ACD Talk (h:mm:ss)	the total duration of all ACD calls that originate outside the office with a destination within the office
Avg External ACD Duration (h:mm:ss)	the average duration of an ACD call that originates outside the office with a destination within the office
NonACD Calls Answered	the total number of all nonACD calls answered
Total Internal NonACD Calls	the total number of all nonACD calls that you receive that originate in the office
Total Talk Internal NonACD (h:mm:ss)	the total duration of all nonACD calls that you receive that

originate in the office

Avg Internal NonACD Duration (h:mm:ss)the average duration of a nonACD call that you receive that originates in the office

Total External NonACD Calls   the total number of all nonACD calls that originate outside the office with a destination within the office

Total External NonACD Talk (h:mm:ss)the total duration of all nonACD calls that originate outside the office with a destination within the office

Avg External NonACD Duration (h:mm:ss)the average duration of a nonACD call that originates outside the office with a destination within the office

Calls Outbound   the total of calls that you make

Total Internal Out Calls   the total number of calls that you make to destinations within the office

Total Talk Internal Out Calls (h:mm:ss)the total duration of all calls that you make to destinations within the office

Avg Internal Out Duration (h:mm:ss)the average duration of a call that you make to destinations within the office

Total Talk External Out Calls (h:mm:ss)the total duration of all calls that you make to destinations outside the office

Avg External Out Duration (h:mm:ss)the average duration of a call that you make to destinations outside the office

Event by Period Reports

Event by Period (Percent) and Event by Period (Percent) SX-200 Reports

The Agent and Agent Event by Period (Percentages) Report displays log on and log off times for the agent and agent group, and the percentage of time the agent spends in various agent and agent group states for the day(s) you specify. It reports the statistics as a percentage of the total shift time.

The Agent and Agent Group Event by Period (Percentages) SX-200 Report displays log on and log off times for the agent and agent group, and the percentage of time the agent and agent group spends in various agent states for the day(s) you specify for the SX-200 switch. It reports the statistics as a percentage of the total shift time.

If you specify conditions in which agents enter unavailable states (logged off, make busy, do not disturb), you can accurately measure the time agents spend on various activities.

For example, you could specify that agents log off when they go on breaks, for lunch, or when they are away from their desks for greater than five minutes. You could specify that agents go into make busy when they are away from their desks less than five minutes, and that they enter do not disturb when they are in meetings or in training.

Login Date / Time	Logout Date / Time	Total Shift Time [h:mm:ss]	Idle Time Percentage	ACD Talk Percentage	ACD Hold Percentage	NonACD Talk Percentage
18/09/2000 12:58	18/09/2000 13:46	0:48:07	5.0	90.3	0.0	0.0
22/09/2000 14:14	22/09/2000 14:36	0:22:06	0.5	79.0	19.5	0.0

Non ACD Hold Percentage	OutBound Percentage	OutBound Hold Percentage	Wrap Up Percentage	Make Busy Percentage	DND Percentage	Extension
0.0	0.0	0.0	4.7	0.0	0.0	6221
0.0	0.0	0.0	1.1	0.0	0.0	6037

For the SX-2000 and the SX-200 with real-time, it provides the following information.

Report Field	Description
Login Date/Time	the date and time the agent logged in to the extension
Logout Date/Time	the date and time the agent last logged out of the extension
Total Shift Time (h:mm:ss)	the total elapsed time logged for the period for the agent
Idle Time Percentage	the % of time the agent is logged on waiting to receive calls
ACD Talk Percentage	the % of time the agent answers calls
ACD Hold Percentage	the % of time for answered calls put on hold
NonACD Talk Percentage	the % of time the agent spends on non-ACD calls
NonACD Hold Percentage	the % of time the agent spends on non-ACD calls put on hold
OutBound Percentage	the % of time the agent spends on outbound calls
OutBound Hold Percentage	the % of time for outbound calls put on hold
Wrap Up Percentage	the % of time the agent spends in the wrap up state
Make Busy Percentage	the % of time the agent spends in the make busy state
DND Percentage	the % of time the agent spends in the do not disturb state
Extension	the extension number used by the agent

For the SX-200, it provides the following information.

Report Field	Description
Login Date/Time	the date and time the agent logged in to the extension
Logout Date/Time	the date and time the agent last logged out of the extension
Total Shift Time (h:mm:ss)	the total elapsed time logged for the period for the agent
Idle Time Percentage	the % of time the agent is logged on waiting to receive calls
Make Busy Percentage	the % of time the agent spends in the make busy state
Extension	the extension number used by the agent

The Agent Group Event by Period (Percentages) Report compares the percentage of time agents spend in various agent states, for an agent group a day(s) you specify. It reports the statistics as a percentage of the total shift time.

Agent	Agent Name	Total Shift Time [h:mm:ss]	Idle Time Percentage	ACD Talk Percentage	ACD Hold Percentage
1107	Harinder Sond	1:39:30	24.0	68.0	1.3
1111	Jeffrey Haynes	29:49:24	34.7	44.1	13.8

NonACD Talk Percentage	Non ACD Hold Percentage	OutBound Percentage	OutBound Hold Percentage	Wrap Up Percentage	Make Busy Percentage	DND Percentage
0.0	0.0	4.7	0.0	2.0	0.0	0.0
0.6	0.0	1.5	0.0	1.8	3.5	0.0

For the SX-2000 and the SX-200 with real-time, the Agent Group Event by Period (Percentages) Report provides the following information.

Report Field	Description
Total Shift Time (h:mm:ss)	the total elapsed time logged for the period
Idle Time Percentage	the% of time agents are logged on waiting to receive calls
ACD Talk Percentage	the% of time agents answer calls
ACD Hold Percentage	the% of time for answered calls put on hold
NonACD Talk Percentage	the% of time agents spend on non-ACD calls
NonACD Hold Percentage	the% of time agents spend on non-ACD calls put on hold
OutBound Percentage	the% of time agents spend on outbound calls
OutBound Hold Percentage	the% of time for outbound calls put on hold
Wrap Up Percentage	the% of time agents spend in the wrap up state
Make Busy Percentage	the% of time agents spend in the make busy state
DND Percentage	the% of time agents spend in the do not disturb state

For the SX-200 with real-time, the Agent Group Event by Period (Percentages) Report provides the following information:

Report Field	Description
Agent	the agent ID entered by the agent
Agent Name	the name associated with the agent ID in YourSite
Total Shift Time (h:mm:ss)	the total elapsed time logged for the period
Idle Time Percentage	the% of time agents are logged on waiting to receive calls
Make Busy Percentage	the% of time agents spend in the make busy state

Event by Period (h:mm:ss) Reports

The Agent Event by Period (h:mm:ss) Report displays log on and log off times for the agent and the total time the agent spends in various agent states for the day(s) you specify. It reports the statistics in hours, minutes, and seconds and provides call counts for the agent.

The Agent Group Event by Period (h:mm:ss) Report displays log on and log off times for the agent group and the total time the agent group spends in various agent states for the day(s) you specify. It reports the statistics in hours, minutes, and seconds and provides call counts for the agent.

Login Date / Time	Logout Date / Time	Total Shift Time [h:mm:ss]	Idle Time [h:mm:ss]	Total ACD Call Count	ACD Call Count < 20 Sec	ACD Talk Time [h:mm:ss]	Avg ACD Talk Time [h:mm:ss]	Wrap Up Time [h:mm:ss]
18/09/2000 7:40	18/09/2000 15:26	7:46:15	3:21:56	7	1	0:07:02	0:01:00	0:01:43
19/09/2000 7:47	19/09/2000 15:26	7:38:54	2:23:14	1	0	0:01:08	0:01:08	0:00:29

Non ACD Talk Time [h:mm:ss]	Non ACD Call Count	OutBound Time [h:mm:ss]	OutBound Call Count	Total Hold Time [h:mm:ss]	Total Make Busy Time [h:mm:ss]	Avg Make Busy Time [h:mm:ss]	Make Busy Count	Total DND Time [h:mm:ss]	DND Count	Ext
0:22:42	5	0:33:23	12	0:03:40	3:15:49	0:19:35	10	0:00:00	0	6058
0:10:34	4	0:04:44	6	0:01:32	4:57:13	0:33:01	9	0:00:00	0	6058

The Agent Event by Period (h:mm:ss) Report is truncated to the first 1000 records. It provides the following information.

Report Field	Description
Login Date/Time	the date and time the agent logged in to the extension
Logout Date/Time	the date and time the agent last logged out of the extension
Total Shift Time (h:mm:ss)	the total elapsed time logged for the period for the agent
Idle Time (h:mm:ss)	the total time the agent is logged on waiting to receive calls
Total ACD Call Count	the total number of ACD calls the agent answers
ACD Call Count < 20 Sec	the total number of ACD calls answered in less than 20 seconds
ACD Talk Time (h:mm:ss)	the total time the agent answers calls
Avg ACD Talk Time (h:mm:ss)	the average time the agent spent answering calls
Wrap Up Time (h:mm:ss)	the total time the agent spends in the wrap up state
NonACD Talk Time (h:mm:ss)	the total time the agent spends on non-ACD calls
NonACD Call Count	the total number of non-ACD calls the agent answers
OutBound Time (h:mm:ss)	the total time the agent spends on outbound calls
OutBound Call Count	the total number of outbound calls the agent makes
Total Hold Time (h:mm:ss)	the total time for answered calls put on hold
Total Make Busy Time (h:mm:ss)	the total time the agent spends in the make busy state
Average Make Busy Time (h:mm:ss)	the average time the agent spends in the make busy state
Make Busy Count	the total number of times the agent enters the make busy state
Total DND Time (h:mm:ss)	the total time the agent spends in the do not disturb state
DND Count	the total number of times the agent enters the do not disturb state
Extension	the extension number used by the agent

The Agent Group Event by Period (h:mm:ss) Report compares the total time agents spend in various agent states, for the agent group and day(s) you specify. It reports the statistics in hours, minutes, and seconds. It also compares call counts across agents.

Agent	Name	Total Shift Time [h:mm:ss]	Idle Time [h:mm:ss]	Total ACD Call Count	ACD Call Count < 20 Sec	ACD Talk Time [h:mm:ss]	Avg ACD Talk Time [h:mm:ss]	Wrap Up Time [h:mm:ss]
1001	Shannon Nix	28:41:27	4:54:21	218	9	14:30:16	0:04:00	0:48:54
1002	Dominic Lecours	7:51:21	0:41:17	56	2	5:43:14	0:06:08	0:10:38

Non ACD Talk Time [h:mm:ss]	Non ACD Call Count	OutBound Time [h:mm:ss]	OutBound Call Count	Total Hold Time [h:mm:ss]	Total Make Busy Time [h:mm:ss]	Avg Make Busy Time [h:mm:ss]	Make Busy Count	Total DND Time [h:mm:ss]	DND Count
0:00:00	0	2:10:13	35	5:58:11	0:19:32	0:02:27	8	0:00:00	0
0:00:00	0	0:31:37	13	0:36:28	0:08:07	0:08:07	1	0:00:00	0

The Agent Group Event by Period (h:mm:ss) Report provides the following information.

Report Field	Description
Total Shift Time (h:mm:ss)	the total elapsed time logged for the period
Idle Time (h:mm:ss)	the total time agents are logged on waiting to receive calls
Total ACD Call Count	the total number of ACD calls agents answer
ACD Call Count < 20 Sec	the total number of ACD calls answered in less than 20 seconds
ACD Talk Time (h:mm:ss)	the total time agents answer calls
Avg ACD Talk Time (h:mm:ss)	the average time agents spend answering calls
Wrap Up Time (h:mm:ss)	the total time agents spend in the wrap up state
NonACD Talk Time (h:mm:ss)	the total time agents spend on non-ACD calls
NonACD Call Count	the total number of non-ACD calls answered
OutBound Time (h:mm:ss)	the total time agents spend on outbound calls
OutBound Call Count	the total number of outbound calls made
Total Hold Time (h:mm:ss)	the total time for answered calls put on hold
Total Make Busy Time (h:mm:ss)	the total time agents spend in the make busy state
Average Make Busy Time (h:mm:ss)	the average time agents spend in the make busy state
Make Busy Count	the total number of times agents enter the make busy state
Total DND Time (h:mm:ss)	the total time agents spend in the do not disturb state
DND Count	the total number of times agents enter the do not disturb state

Inbound/Outbound Trace Reports

Inbound Trace Report

The Agent Inbound Trace Report shows calls received by the agent. It lists the type of calls the agent receives and where those calls originate.

The Agent Inbound Trace Report provides the following information.

Report Field	Description
Call Start Time	date and time of the call
Agent	agent number
Extension	the extension numbers used by agents
Call Duration	the length of the call
Call Type	internal or external
Queue	the queue number
Agent Group	agent group number 1, 2, 3, or 4
Trunk	the communication line between two switching systems
Area Code	the area code reported by the ANI digits
ANI	the telephone number of the person calling you
DNIS	the DNIS number as programed in the YourSite Database
Number Dialed	the telephone number you have called
Transfer	the transfer number

Outbound Trace Report

The Agent Outbound Trace Report shows calls originated by the agent. It lists the type of calls the agent makes and where those calls go.

The Agent Outbound Trace Report provides the following information.

Report Field	Description
Call Start Time	date and time of the call
Agent	agent number
Extension	the extension numbers used by agents
Call Duration	the length of the call
Call Type	internal or external
Queue	the queue number
Agent Group	agent group number 1, 2, 3, or 4
Trunk	the communication line between two switching systems
Area Code	the area code reported by the ANI digits
ANI	the telephone number of the person calling you
DNIS	the DNIS number as programed in the YourSite Database
Number Dialed	the telephone number you have called
Transfer	the transfer number

Answering Agent Reports

Agent by Answering Agent Group Report

The Agent by Answering Agent Group Report shows an agent's workload distributed across the agent groups for which the agent answers calls.

It shows an agent's workload distribution across the agent groups for which the agent answers calls for the shift duration and day(s) you specify. It reports the statistics in hours, minutes, and seconds, and provides call counts. (If you have agents who answer for multiple agent groups, do not use the Agent Group by Agent Report: it assumes the agents belong to only one agent group.)

Node Name	Agent Group ID	Agent Group Name
Customer Care Kanata	4	CC-Canadian Rma
Customer Care Montréal	3	CC-Canadian Services

ACD Calls Answered	Total ACD Talk Time h:mm:ss	Average ACD Talk Time h:mm:ss
65	0:06:08	0:00:05
58	0:05:25	0:00:05

The Answering Agent Group by Agent Report provides the following information for individual agents in the group.

Report Field	Description
Agent Number	the agent ID entered by the agent
Agent Name	the name associated with the above agent ID in YourSite
ACD Calls Answered	the count of all ACD queue calls answered for the period
Total ACD Talk Time (h:mm:ss)	the total duration for answered calls
Average ACD Talk Time (h:mm:ss)	the average duration for calls where the caller dials an extension

Answering Agent Group by Agent Report

The Answering Agent Group by Agent Report shows workload distribution across agents in an agent group.

It compares the workload distribution across the agents in an agent group for the shift duration and day(s) you specify. It reports the statistics in hours, minutes, and seconds, and provides call counts across agents. (If you have agents who answer for multiple agent groups, do not use the Agent Group Answering by Agent Report: it assumes the agents belong to only one agent group.)

Node Name	Agent Number	Agent Name
Customer Care Kanata	6446	Barr, B
Customer Care Montréal	6443	Langley, M

ACD Calls Answered	Total ACD Talk Time h:mm:ss	Average ACD Talk Time h:mm:ss
68	0:11:37	0:00:10
58	0:05:25	0:00:05

The Answering Agent Group by Agent Report provides the following information for individual agents in the group.

Report Field	Description
Agent Number	the agent ID entered by the agent
Agent Name	the name associated with the above agent ID in YourSite
ACD Calls Answered	the count of all ACD queue calls answered for the period
Total ACD Talk Time (h:mm:ss)	the total duration for answered calls
Average ACD Talk Time (h:mm:ss)	the average duration for calls where the caller dials an extension

Agent Shift Reports

Shift by Period Report

The Agent Shift by Period Report shows shift activity. The data for the report is taken from the ACD data stream.

The Agent Shift by Period Report provides the following information.

Report Field	Description
Activity Period	the interval of the report in hours and minutes, by day of the week, by day of the month, or by month
Total Shift Time (h:mm:ss)	the total elapsed time logged for the agent
Idle Time (h:mm:ss)	the total time the agent is logged on waiting to receive calls
Total ACD Call Count	the total number of ACD calls the agent answers
ACD Call Count < 20 Sec	the total number of ACD calls answered in less than 20 seconds
ACD Talk Time (h:mm:ss)	the total time the agent answers calls
Avg ACD Talk Time (h:mm:ss)	the average time the agent spent answering calls
Wrap Up Time (h:mm:ss)	the total time the agent spends in the wrap up state
NonACD Talk Time (h:mm:ss)	the total time the agent spends on non-ACD calls
NonACD Call Count	the total number of non-ACD calls the agent answers
OutBound Time (h:mm:ss)	the total time the agent spends on outbound calls
OutBound Call Count	the total number of outbound calls the agent makes
Total Hold Time (h:mm:ss)	the total time for answered calls put on hold
Total Make Busy Time (h:mm:ss)	the total time the agent spends in the make busy state
Average Make Busy Time (h:mm:ss)	the average time the agent spends in the make busy state
Make Busy Count	the total number of times the agent enters the make busy state
Total DND Time (h:mm:ss)	the total time the agent spends in the do not disturb state
DND Count	the total number of times the agent enters the do not disturb state

Employee Reports

Employee Reports provide employment and performance information on agents.

The list of employee reports is as follows:

Performance Reports
- Employee and Employee Group Performance by Period
- Employee and Employee Group Performance by Day of the Week
- Employee and Employee Group Performance by Day of the Month
- Employee and Employee Group Performance by Month
- Employee and Employee Group Performance by Queue
- Employee and Employee Group Performance Make Busy Code
- Employee Performance by Agent ID
- Employee Group Performance by Employee

Internal/External Reports
- Employee and Employee Group Internal/External Call Counts by Period
- Employee and Employee Group Internal/External Call Counts by Day of the Week
- Employee and Employee Group Internal/External Call Counts by Day of the Month
- Employee and Employee Group Internal/External Call Counts by Month
- Employee Internal/External Call Counts by Employee
- Employee Group Internal/External Call Counts by Agent

Event by Period Reports
- Employee Event by Period

Performance Reports

Performance by Period, Day of the Week, Day of the Month, and Month

The Employee and Employee Group Performance by Period Report shows the call handling performance of an employee and employee group for the shift duration and day(s) you specify.

The Employee and Employee Group Performance by Day of the Week Report shows the call handling performance of an employee and employee group across the days of one week.

The Employee and Employee Group Performance by Day of the Month Report shows the call handling performance of an employee and employee group across the days of the month.

The Employee and Employee Group Performance by Month Report shows the call handling performance of an employee and employee group across the month.

The Employee and Employee Group Performance Reports provide the following information.

Report Field	Description
Activity Period	the interval of the report in hours and minutes, by day of the week, by day of the month, or by month
ACD Calls Answered	the count of all ACD queue calls answered for the period
Non ACD Calls Answered	the count of all non-ACD calls answered for the period
Calls Abandoned	the count of all calls abandoned at the agent's position
Calls Outbound	the count of all outbound calls
Calls Requeued	the count of all requeues at the agent's position - if an agent fails to pick up a call, the telephone system places the call back in the same queue and it is picked up by the first available agent
Calls Transferred to Agent	the count of all calls transferred to the agent's position
Calls Transferred from Agent	the count of all calls transferred from the agent's position
Conference Calls	the count of conference calls involving the agent
Account Codes	the count of account codes entered by the agent
Total ACD Talk Time (h:mm:ss)	the total duration for answered calls
Average ACD Talk Time (h:mm:ss)	the average duration for answered calls
Total Non ACD Talk Time (h:mm:ss)	the total duration for non-ACD calls
Average Non ACD Talk Time (h:mm:ss)	the average duration for non-ACD calls
Total Outbound Talk Time (h:mm:ss)	the total duration for outbound calls
Average Outbound Talk Time (h:mm:ss)	the average duration for outbound calls

Performance by Queue

The Employee Performance by Queue Reports show ACD statistics on the queues for which the employee answered calls, and the summary total of statistics for non-ACD calls involving the employee for the shift duration and day(s) you specify.

The Employee Group Performance by Queue Reports show ACD statistics on the queues for which the employees in the employee group answered calls, and the summary total of statistics for non-ACD calls involving the employee (in the employee group) for the shift duration and day(s) you specify.

The Employee and Employee Group Performance by Queue Reports provides the following information.

Report Field	Description
ACD Queue	the ACD queue for which the agent answered calls
ACD Calls Answered	the count of all ACD queue calls answered for the period
Total ACD Talk Time (h:mm:ss)	the total duration for answered calls
Average ACD Talk Time (h:mm:ss)	the average duration for answered calls
ACD Calls Requeued	the count of all ACD requeues at the agent's position - if an agent fails to pick up a call, the telephone system places the call back in the same queue and it is picked up by the first available agent
Non ACD Calls Answered	the count of all non-ACD calls answered for the period
Calls Outbound	the count of all outbound calls
Calls Transferred to Agent	the count of all calls transferred to the agent's position
Calls Transferred from Agent	the count of all calls transferred from the agent's position
Conference Calls	the count of conference calls involving the agent
Total Non ACD Talk Time (h:mm:ss)	the total duration for non-ACD calls
Average Non ACD Talk Time (h:mm:ss)	the average duration for non-ACD calls
Total Outbound Talk Time (h:mm:ss)	the total duration for outbound calls
Average Outbound Talk Time (h:mm:ss)	the average duration for outbound calls

Performance by Make Busy Code Reports

The Employee and Employee Group Performance by Make Busy Code Reports show the frequency and duration the employee and employee group are in Make Busy.

The Employee and Employee Group Performance by Make Busy Code provides the following information.

Report Field	Description
Make Busy Code	the make busy code tagged to the ACD queue call
Name	the name of the make busy code If the Make Busy Code 01 means the morning break, the name of the account code could be Morning Break.
Make Busy Count	the count of all make busy codes
Total Make Busy Time (h:mm:ss)	the total time the agent spends in the make busy state
Average Make busy Time (h:mm:ss)	the average time the agent spends in the make busy state

Performance by Agent ID Reports

The Employee Performance by Agent ID Reports show the performance of all the agents that an employee is.

Remember, each employee can be several agents.

Employee Performance by Agent ID Reports provide the following information.

Report Field	Description
Agent Number	the agent ID entered by the employee
ACD Calls Answered	the count of all ACD queue calls answered for the period
Non ACD Calls Answered	the count of all non-ACD calls answered for the period
Calls Outbound	the count of all outbound calls
Calls Requeued	the count of all requeues at the agent's position - if an agent fails to pick up a call, the telephone system places the call back in the same queue and it is picked up by the first available agent
Total Shift Time (h:mm:ss)	the total elapsed time logged for the agent
Total ACD Talk Time (h:mm:ss)	the total duration for ACD calls
Average ACD Talk Time (h:mm:ss)	the average duration for ACD calls
Percent of Shift	the percentage of shift time representing ACD call activity
Total Non ACD Talk Time (h:mm:ss)	the total duration for non-ACD calls
Average Non ACD Talk Time (h:mm:ss)	the average duration for non-ACD calls
Percent of Shift	the percentage of shift time representing non-ACD call activity
Total Outbound Talk Time (h:mm:ss)	the total duration for outbound calls
Average Outbound Talk Time (h:mm:ss)	the average duration for outbound calls
Percent of Shift	the percentage of shift time representing outbound call activity
Make Busy Time (h:mm:ss)	the total duration spent in the make busy state

Performance by Employee Reports

The Employee Group Performance by Employee Reports show the workload distribution across the employees in an employee group for the shift duration and day(s) you specify. It reports the statistics in hours, minutes, and seconds, and provides call counts across employees.

Employee Group Performance by Employee Reports provide the following employment and performance information across agents.

Report Field	Description
Agent Name	the name associated with the employee in YourSite
Employee Number	the employee ID assigned to the agent
ACD Calls Answered	the count of all ACD queue calls answered for the period
Non ACD Calls Answered	the count of all non-ACD calls answered for the period
Calls Outbound	the count of all outbound calls
Calls Requeued	the count of all requeues at the agent's position - if an agent fails to pick up a call, the telephone system places the call back in the same queue and it is picked up by the first available agent
Total Shift Time (h:mm:ss)	the total elapsed time logged for the agent
Total ACD Talk Time (h:mm:ss)	the total duration for ACD calls
Average ACD Talk Time (h:mm:ss)	the average duration for ACD calls
Percent of Shift	the percentage of shift time representing ACD call activity
Total Non ACD Talk Time (h:mm:ss)	the total duration for non-ACD calls
Average Non ACD Talk Time (h:mm:ss)	the average duration for non-ACD calls
Percent of Shift	the percentage of shift time representing non-ACD call activity
Total Outbound Talk Time (h:mm:ss)	the total duration for outbound calls
Average Outbound Talk Time (h:mm:ss)	the average duration for outbound calls
Percent of Shift	the percentage of shift time representing outbound call activity
Make Busy Time (h:mm:ss)	the total duration spent in the make busy state

NOTE: Employee numbers are distinct from agent numbers. You assign them assigned to agents for identification purposes. When an agent leaves the call center, the database maintains the agent's call records for some time. If you assign the outgoing agent's, agent ID to a new agent, so that both agents share the same agent ID, the employee ID distinguishes the two agents.

Internal/External Reports

Internal/External Call Counts by Period, Day of the Week, Day of the Month, Month, Employee and Agent Reports

Here is a brief definition of external and internal calls:

Internal Out is a call that *you make* from the office to a destination within the office.
External Out is a call that *you make* from the office to a destination outside the office.
Internal NonACD is a call that *you receive* in the office from an origin within the office.
External NonACD is a call that *you receive* in the office from an origin outside the office.
Internal ACD is an ACD call that originates from *inside* the office to a destination within the office.
External ACD is an ACD call that originates from *outside* the office with a destination within the office.

There are ten Employee Internal/External Call Count Reports:

Employee and Employee Group Internal/External Call Counts by Period Reports show internal and external call activity of an employee and employee group across 15-, 30-, or 60-minute intervals for the shift duration and day(s) you specify.

Employee and Employee Group Internal/External Call Counts by the Day of the Week Reports show internal and external call activity of an employee and employee group for the days of one week.

Employee and Employee Group Internal/External Call Counts by the Day of the Month Reports show internal and external call activity of an employee and employee group for the days of the month.

Employee and Employee Group Internal/External Call Counts by Month show internal and external call activity of an employee and employee group for the month.

Employee Internal/External Call Counts by Employee show internal and external call activity of each employee.

Employee Group Internal/External Call Counts by Agent Reports show internal and external call activity of each agent in the employee group.

All employee internal/external call count reports have the following headings:

Report Field	Description
Activity Period	the interval of the report in hours and minutes, by day of the week, by day of the month, or by month
ACD Calls Answered	the count of all ACD calls answered
Total Internal ACD Calls	the total number of all ACD calls that you receive that originate inside the office
Total Talk Internal ACD (h:mm:ss)	the total duration of all ACD calls that you receive that originate in the office
Avg Internal ACD Duration (h:mm:ss)	the average duration of an ACD call that you receive that originates in the office
Total External ACD Calls	the total number of all ACD calls that originate outside the office with a destination within the office
Total External ACD Talk (h:mm:ss)	the total duration of all ACD calls that originate outside the office with a destination within the office
Avg External ACD Duration (h:mm:ss)	the average duration of an ACD call that originates outside the office with a destination within the office
NonACD Calls Answered	the total number of all nonACD calls answered
Total Internal NonACD Calls	the total number of all nonACD calls that you receive that originate in the office
Total Talk Internal NonACD (h:mm:ss)	the total duration of all nonACD calls that you receive that originate in the office
Avg Internal NonACD Duration (h:mm:ss)	the average duration of a nonACD call that you receive that originates in the office
Total External NonACD Calls	the total number of all nonACD calls that originate outside the office with a destination within the office
Total External NonACD Talk (h:mm:ss)	the total duration of all nonACD calls that originate outside the office with a destination within the office
Avg External NonACD Duration (h:mm:ss)	the average duration of a nonACD call that originates outside the office with a destination within the office
Calls Outbound	the total of calls that you make
Total Internal Out Calls	the total number of calls that you make to destinations within the office
Total Talk Internal Out Calls (h:mm:ss)	the total duration of all calls that you make to destinations within the office
Avg Internal Out Duration (h:mm:ss)	the average duration of a call that you make to destinations within the office
Total Talk External Out Calls (h:mm:ss)	the total duration of all calls that you make to destinations outside the office
Avg External Out Duration (h:mm:ss)	the average duration of a call that you make to destinations outside the office

Event by Period Reports

Event by Period (h:mm:ss) Reports

Employee Event by Period (h:mm:ss) Reports display log on and log off times for the employee and the total time the employee spends in various agent states for the day(s) you specify. It reports the statistics in hours, minutes, and seconds and provides call counts for the employee.

Employee Event by Period (h:mm:ss) Reports are truncated to the first 1000 records. They provide the following information.

Report Field	Description
Login Date/Time	the date and time the agent logged in to the extension
Logout Date/Time	the date and time the agent last logged out of the extension
Total Shift Time (h:mm:ss)	the total elapsed time logged for the period for the agent
Idle Time (h:mm:ss)	the total time the agent is logged on waiting to receive calls
Total ACD Call Count	the total number of ACD calls the agent answers
ACD Call Count < 20 Sec	the total number of ACD calls answered in less than 20 seconds
ACD Talk Time (h:mm:ss)	the total time the agent answers calls
Avg ACD Talk Time (h:mm:ss)	the average time the agent spent answering calls
Wrap Up Time (h:mm:ss)	the total time the agent spends in the wrap up state
NonACD Talk Time (h:mm:ss)	the total time the agent spends on non-ACD calls
NonACD Call Count	the total number of non-ACD calls the agent answers
OutBound Time (h:mm:ss)	the total time the agent spends on outbound calls
OutBound Call Count	the total number of outbound calls the agent makes
Total Hold Time (h:mm:ss)	the total time for answered calls put on hold
Total Make Busy Time (h:mm:ss)	the total time the agent spends in the make busy state
Average Make Busy Time (h:mm:ss)	the average time the agent spends in the make busy state
Make Busy Count	the total number of times the agent enters the make busy state
Total DND Time (h:mm:ss)	the total time the agent spends in the do not disturb state
DND Count	the total number of times the agent enters the do not disturb state

Team Reports

Teams are collections of agent groups used for reporting. You use Team Reports to view statistics (on individual agents) across multiple agent groups in one report. Team Reports provide an indication of how individual agents spend their time, and compare the performance of agents.

The list of team reports is as follows:

Performance Reports
- Team Performance by Period Reports
- Team Performance by Day of the Week
- Team Performance by Day of the Month
- Team Performance by Month
- Team Performance by Agent
- Team Performance by Queue

Event by Period Reports
- Team Event by Period (Percent)
- Team Event by Period (Percent) for SX-200

Performance Reports

Performance by Period, Day of the Week, Day of the Month, and Month Reports

Team Performance by Period Reports show the call activity of the team across 15-, 30-, or 60-minute intervals for the shift duration and day(s) you specify.

Team Performance by Day of the Week Reports show the performance of the team for each day of one week.

Team Performance by Day of the Month Reports show the performance of the team for each day of one month.

Team Performance by Month Reports show the performance of the team for one month.

Team Performance by Period Reports provide the following information.

Report Field	Description
Activity Period	the interval of the report in hours and minutes, by day of the week, by day of the month, or by month
ACD Calls Answered	the count of all ACD queue calls answered for the period
Non ACD Calls Answered	the count of all non-ACD queue calls answered for the period
Calls Abandoned	the count of all calls abandoned at the agent's position
Calls Outbound	the count of all outbound calls
Calls Requeued	the count of all requeues at the agent's position - if an agent fails to pick up a call, the telephone system places the call back in the same queue and it is picked up by the first available agent
Transferred to Agent	the count of all calls transferred to the agent's position
Transferred from Agent	the count of all calls transferred from the agent's position
Conference Calls	the count of conference calls involving the agent
Account Codes	the count of account codes entered by the agent
Total ACD Talk Time (h:mm:ss)	the total duration for answered calls
Average ACD Talk Time (h:mm:ss)	the average duration for answered calls
Total Non ACD Talk Time (h:mm:ss)	the total duration for non-ACD calls
Average Non ACD Talk Time (h:mm:ss)	the average duration for non-ACD calls
Total Outbound Talk Time (h:mm:ss)	the total duration for outbound calls
Average Outbound Time (h:mm:ss)	the average duration for outbound calls

Performance by Agent Reports

Team Performance by Agent Report shows the performance of each agent of a team.

Team Performance by Agent Reports provide the following information on individual agents.

Report Field	Description
Agent Number	the agent ID entered by the agent
Agent Name	the name associated with the above agent ID in YourSite
ACD Calls Answered	the count of all ACD queue calls answered for the period
Non ACD Calls Answered	the count of all non-ACD calls answered for the period
Calls Outbound	the count of all outbound calls
ACD Calls Requeued	the count of all requeues at the agent's position - if an agent fails to pick up a call, the telephone system places the call back in the same queue and it is picked up by the first available agent
Total Shift Time (h:mm:ss)	the total elapsed time logged for the agent
Total ACD Talk Time (h:mm:ss)	the total duration for answered calls
Average ACD Talk Time (h:mm:ss)	the average duration for answered calls
Percent of Shift	the percentage of shift time representing ACD call activity
Total Non ACD Talk Time (h:mm:ss)	the total duration for non-ACD calls
Average Non ACD Talk Time (h:mm:ss)	the average duration for non-ACD calls
Percent of Shift	the percentage of shift time representing non-ACD call activity
Total Outbound Talk Time (h:mm:ss)	the total duration for outbound calls
Average Outbound Talk Time (h:mm:ss)	the average duration for outbound calls
Percent of Shift	the percentage of shift time representing outbound call activity
Make Busy Time (h:mm:ss)	the total duration spent in the make busy state

Performance by Queue Reports

Team Performance by Queue Reports provide the following information. The first five fields contain multiple records reflecting the ACD queues serving the ACD Agent and Agent Group. The remaining fields contain a single record reflecting the totals irrespective of ACD queue.

Report Field	Description
ACD Queue	the ACD queue for which the agent answered calls
ACD Calls Answered	the count of all ACD queue calls answered
Total ACD Talk Time (h:mm:ss)	the total duration for answered calls
Average ACD Talk Time (h:mm:ss)	the average duration for answered calls
ACD Calls Requeued	the count of all requeues at the agent's position - if an agent fails to pick up a call, the telephone system places the call back in the same queue and it is picked up by the first available agent
Non ACD Calls Answered	the count of all non-ACD calls answered
Calls Outbound	the count of all outbound calls
Calls Transferred to Agent	the count of all calls transferred to the agent's position
Calls Transferred from Agent	the count of all calls transferred from the agent's position
Conference	the count of conference calls involving the agent
Total Non ACD Talk Time (h:mm:ss)	the total duration for non-ACD calls
Average Non ACD Talk Time (h:mm:ss)	the average duration for non-ACD calls
Total Outbound Time (h:mm:ss)	the total duration for outbound calls
Average Outbound Time (h:mm:ss)	the average duration for outbound calls

Event by Period Reports

Event by Period (Percent)

Event by Period (Percent) SX-200

Team Event by Period Reports provide the following information.

Report Field	Description
Log In Time	the time at which agents logged in to extensions
Log Out Time	the time at which agents last logged out of extensions
Total Shift Time (h:mm:ss)	the total elapsed time logged for the period
Make Busy Time (h:mm:ss)	the total elapsed time in the make busy state
Extension	the extension numbers used by agents
ACD Talk Time (h:mm:ss)	the total duration for answered calls
ACD Hold Time (h:mm:ss)	the total duration for answered calls put on hold
NonACD Talk (h:mm:ss)	the total duration for non-ACD calls
NonACD Hold (h:mm:ss)	the total duration for non-ACD calls put on hold
OutBound Talk (h:mm:ss)	the total duration for outbound calls
OutBound Hold (h:mm:ss)	the total duration for outbound calls put on hold
Wrap UpTime (h:mm:ss)	the total elapsed time in the wrap up state
DND Time (h:mm:ss)	the total elapsed time in the do not disturb state

Trunk Reports

Trunk Reports on individual trunks and trunk groups provide an indication of how busy your trunks are.

The list of trunk reports is as follows:

Performance Reports
- Trunk and Trunk Group Performance by Period
- Trunk and Trunk Group Performance by Day of the Week
- Trunk Performance by Trunk

Busy Minutes Reports
- Trunk Group Busy Minutes

Performance Reports

Performance by Period and Day of the Week Reports

Trunk and Trunk Group Performance by Period Reports show the call activity of the trunk and trunk group across 15-, 30-, or 60-minute intervals for the shift duration and day(s) you specify.

Trunk and Trunk Group Performance by Day of the Week Reports show the performance of the trunk and trunk group for each day of one week.

Trunk and Trunk Group Performance by Period Reports provide the following information.

Report Field	Description
Activity Period	The interval of the report, in hours and minutes, by day of the week, or by day of the month
ACD Calls Answered	the count of all ACD calls answered for the period
Non ACD Calls Answered	the count of all non-ACD calls answered for the period
Calls Abandoned	the count of all abandoned calls for the period
Calls Outbound	the count of all outbound calls for the period
Avg Speed of Answer (h:mm:ss)	the average delay before the call is answered
Avg Delay to Abandon (h:mm:ss)	the average elapsed time before the call is abandoned
Total ACD Talk Time (h:mm:ss)	the total duration for answered calls
Average ACD Talk Time (h:mm:ss)	the average duration for ACD calls
Total Non ACD Talk Time (h:mm:ss)	the total duration for non-ACD calls
Average Non ACD Talk Time (h:mm:ss)	the average duration for non-ACD calls
Total Outbound Time (h:mm:ss)	the total duration for outbound calls
Average Outbound Time (h:mm:ss)	the average duration for outbound calls

Performance by Trunk Reports

All of the preceding report fields are the same for Trunk Group Performance by Trunk Reports with one exception: a Trunk Number column defining the member trunks replaces the Activity Period column.

Busy Minutes Reports

All Trunk Group Busy Minute Reports provide the following information.

Report Field	Description
Activity Period	the interval of the report, in hours and minutes, by day of the week, or by day of the month
Maximum Trunks Used	the maximum count of trunks in the trunk group simultaneously in use
All Trunks Busy Minutes	the total number of minutes all trunks were simultaneously in use

Extension Reports

Extension Reports on individual extensions and extension groups provide an indication of activity on extensions.

The list of extension reports is as follows:

Performance Reports
- Extension and Extension Group Performance by Period
- Extension and Extension Group Performance by Day of the Week
- Extension and Extension Group Performance by Account Code
- Extension Group Performance by Extension

Performance Reports

Performance by Period Reports

Extension and Extension Group Performance by Period Reports provide the following information.

Report Field	Description
Activity Period	the interval of the report, in hours and minutes, by day of the week, or by day of the month
ACD Calls Answered	the count of all ACD queue calls answered for the period
Non ACD Calls Answered	the count of all non-ACD calls answered for the period
Calls Abandoned	the count of all abandoned calls for the period
Calls Outbound	the count of all outbound calls for the period
Calls Transferred to Extension	the count of all calls transferred to the agent's position
Calls Transferred from Extension	the count of all calls transferred from the agent's position
Conference Calls	the count of conference calls involving the agent
Avg Speed of Answer (h:mm:ss)	the average delay before the call is answered
Avg Delay to Abandon (h:mm:ss)	the average elapsed time before the call is abandoned
Total ACD Talk Time (h:mm:ss)	the total duration for answered calls
Average ACD Talk Time (h:mm:ss)	the average duration for answered calls
Total Non ACD Talk Time (h:mm:ss)	the total duration for non-ACD calls
Average Non ACD Talk Time (h:mm:ss)	the average duration for non-ACD calls
Total Outbound Talk Time (h:mm:ss)	the total duration for outbound calls
Average Outbound Talk Time (h:mm:ss)	the average duration for outbound calls

Performance by Extension Reports

All of the preceding report fields are the same for Extension Group Performance by Extension Reports with one exception: an Extension Number column defining the member extensions replaces the Activity Period column.

4Sight Reports

The 4Sight Reports allows you to use past ACD call data regarding busy and slow periods in order to aid you in scheduling future staff. Please see the 4Sight section of the user guide.

The list of agent reports is as follows:

Forecast Reports
- 4Sight Forecast
- 4Sight Group Forecast

DNIS Reports

DNIS Reports on individual queues or queue groups reflect the service experienced by callers and caller behavior. DNIS Reports provide queue statistics for all calls involving a particular DNIS number. DNIS Group Reports provide queue statistics for all calls involving a particular group of DNIS numbers.

The list of agent reports is as follows:

Performance Reports
- DNIS Performance and Group Performance by Period
- DNIS Performance and Group Performance by Day of the Week
- DNIS Performance and Group Performance by Day of the Month
- DNIS Performance and Group Performance by Month
- DNIS Performance and Group Performance by Queue
- DNIS Group Performance by DNIS

Performance Reports

Performance by Period, Day of the Week, Day of the Month, and Month Reports

DNIS and DNIS Group Performance by Period Reports show the DNIS and DNIS group performance for the shift duration and day(s) you specify. They provide call counts, and report statistics in hours, minutes, and seconds.

DNIS and DNIS Group Performance by Day of the Week show the DNIS and DNIS group performance for the days of one week.

DNIS and DNIS Group Performance by Day of the Month Reports show the DNIS and DNIS group performance for the days of one month.

DNIS and DNIS Group Performance by Month Reports show the DNIS and DNIS group performance for the month.

DNIS and DNIS Group Performance by Period, Day of the Week, Day of the Month, and Month Reports provide the following information.

Report Field	Description
Activity Period	the interval of the report in hours and minutes, by day of the week, by day of the month, or by month
Calls Offered	the count of all calls offered to the ACD queue (answer, plus long abandon, plus long interflow)
ACD Calls Answered	the count of all calls answered
Calls Abandoned [short]	the count of calls that abandoned before the short abandon time
Calls Abandoned [long]	the count of calls that abandoned after the short abandon time
Calls Interflowed	the count of all calls interflowed
Calls Requeued	the count of all calls requeued back into the ACD queue - if an agent fails to pick up a call, the telephone system places the call back in the same queue and it is picked up by the first available agent
Answered By ACD Group1	the count of all calls answered by the first answer point

Answered By ACD Group2	the count of all calls answered by the second answer point
Answered By ACD Group3	the count of all calls answered by the third answer point
Answered By ACD Group4	the count of all calls answered by the fourth answer point
Avg Speed of Answer (h:mm:ss)	the average delay before the call is answered
Avg Delay to Abandon (h:mm:ss)	the average elapsed time before the call is abandoned
Avg Delay to Interflow (h:mm:ss)	the average elapsed time before the call interflows
Total Talk Time (h:mm:ss)	the total duration for answered calls
Average Talk Time (h:mm:ss)	the average duration for answered calls
Service Level %	the percentage of calls answered within a specified threshold
Answer %	the percentage of offered calls answered

Performance by Queue Reports

The DNIS and Group DNIS Performance by Queue Reports show the DNIS and DNIS group performance for the queue you specify.

DNIS and DNIS Group Performance by Queue Reports provide the following information.

Report Field	Description
Queue Number	the queue to which the DNIS number is associated
Calls Offered	the count of all calls offered to the ACD queue (answer, plus long abandon, plus long interflow)
Calls Answered	the count of all calls answered
Calls Abandoned (Short)	the count of all calls abandoned before the short abandon time
Calls Abandoned (Long)	the count of all calls abandoned after the short abandon time
Calls Interflowed	the count of al calls interflowed
Calls Requeued	the count of all calls requeued back into the ACD queue - if an agent fails to pick up a call, the telephone system places the call back in the same queue and it is picked up by the first available agent
Avg Speed of Answer (h:mm:ss)	the average delay before the call is answered
Max Speed of Answer (h:mm:ss)	the maximum delay before the call is answered
Avg Delay to Abandon (h:mm:ss)	the average elapsed time before the call is abandoned
Max Delay to Abandon (h:mm:ss)	the maximum delay before the call is abandoned
Avg Delay to Interflow (h:mm:ss)	the average elapsed time before the call interflows
Max Delay to Interflow (h:mm:ss)	the maximum delay before the call interflows
Total Talk Time (h:mm:ss)	the total duration for calls answered
Average Talk Time (h:mm:ss)	the average duration for calls answered
Service Level%	the percentage of calls answered within a specified threshold
Answer%	the percentage of offered calls answered

Performance by DNIS Reports

DNIS Group Performance by DNIS Reports show each DNIS for the DNIS group you specify.

DNIS Group Performance by DNIS Reports provide the following information.

Report Field	Description
DNIS Number	the DNIS numbers that are members of a DNIS group
Calls Offered	the count of all calls offered to the ACD queue (answer, plus long abandon, plus long interflow)
ACD Calls Answered	the count of all calls answered

Calls Abandoned	the count of all calls abandoned
Calls Interflowed	the count of al calls interflowed
Answered By ACD Group1	the count of all calls answered by the first answer point
Answered By ACD Group2	the count of all calls answered by the second answer point
Answered By ACD Group3	the count of all calls answered by the third answer point
Answered By ACD Group4	the count of all calls answered by the fourth answer point
Avg Speed of Answer (h:mm:ss)	the average delay before the call is answered
Avg Delay to Abandon (h:mm:ss)	the average elapsed time before the call is abandoned
Avg Delay to Interflow (h:mm:ss)	the average elapsed time before the call interflows
Total Talk Time (h:mm:ss)	the total duration for calls answered
Average Talk Time (h:mm:ss)	the average duration for calls answered
Service Level %	the percentage of calls answered within a specified threshold
Answer %	the percentage of offered calls answered

Chapter 8 Data-mining tools

With Inspector, you can find individual events that shape your reports.

With SuperAuditor, you can view historical real-time events at your own pace.

Data-mining tools

Data-mining tools include Inspector and SuperAuditor.

The Inspector program consists of ACD Inspector, SMDR Inspector, and Advanced Inspector search tools. Inspector finds specific call center events, such as the exact time an agent logs off at lunch. You can verify your reports are valid by conducting searches against raw telephone system data. In a single session, you can search through the data from multiple days to find a specific event. Your specifications do not have to be exact. The results are displayed in an easy-to-interpret grid that can be printed or saved to file.

With Inspector, you can search on few or many parameters. For example, suppose you receive a complaint from a caller who waited 16 minutes in queue for a customer service agent, sometime between 1:00 P.M. and 1:30 P.M. on Monday. You can run a search and examine the activities of individual agents or all agents in a particular agent group or queue during that interval. You can search on specific agent states and other parameters, such as the number of calls waiting and the number of active agents.

 Inspector is a search tool. SuperAuditor is a tool with which you can view historical real-time events.

ACD Inspector

When you click Tools=>ACD Inspector Figure 8-1 appears.

Figure 8-1 ACD Inspector main screen - agent events
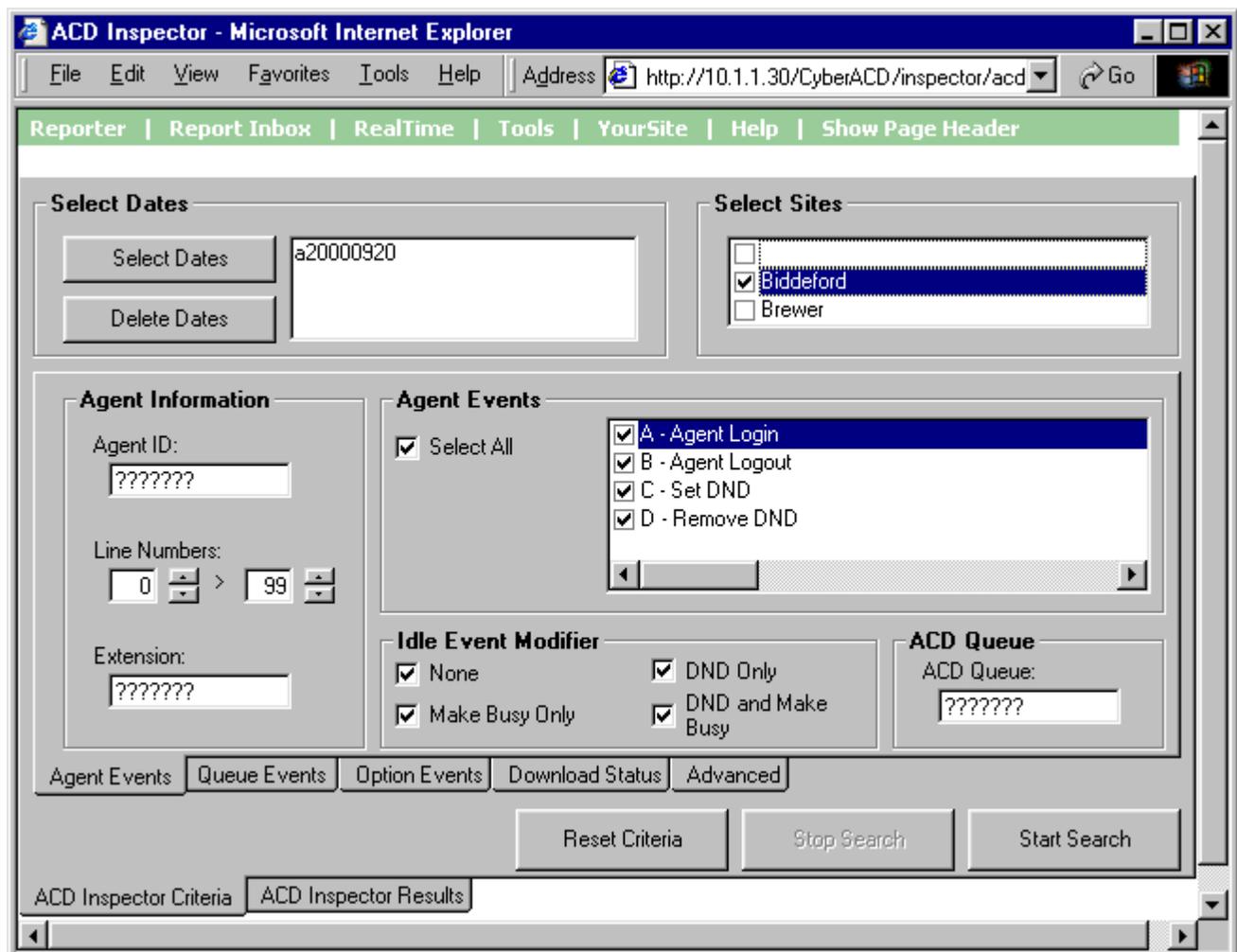
ACD search criteria

The ACD search tabs include Agent Events, Queue Events, Option Events, Download Status, and Advanced.

ACD search criteria - agent events

Figure 8-1 displays the agent event criteria used in the search.

Select Dates/Delete Dates

The Select Dates button specifies one or more days to be included in the search. The Delete Dates button deletes the search date currently selected.

Select Sites

The Select Sites check boxes specify the origin of the data used in the search.

Agent Information

The Agent Information boxes specify the agent's ID and extension number, and line numbers for one or more telephone lines to which the agent connects. You can search for agent information records for a particular agent, or for all agents.

Agent Events

The Agent Events check boxes specify agent states and logon and logoff times used in the search.

Idle Event Modifier

The Idle Event Modifier check boxes provide additional search criteria for the agent Idle event. You can select one or more check boxes to include records for Idle agents who activated DND and/or Make Busy. If you select the None check box only, the search results contain records for Idle agents who do not activate DND or Make Busy.

NOTE: When conducting a search, if you accept the default settings (all check boxes—including the None check box—selected) the search output will contain all event records. You can clear check boxes to narrow down your search for records.

ACD Queue

The ACD Queue box specifies the ACD queue used in the search. If you enter an ACD queue number and an agent number (in the Agent ID box), the search results contain records for all calls the agent receives from the queue.

Reset Criteria

The Reset Criteria button resets all search parameters to their default settings.

ACD search criteria - queue events

Figure 8-2 appears when you click the Queue Events tab. It displays the queue event criteria used in the search.

Figure 8-2 ACD search criteria - queue events

Select Dates/Delete Dates

The Select Dates button specifies one or more days to be included in the search. The Delete Dates button deletes the search date currently selected.

Select Sites

The Select Sites check boxes specify the origin of the data used in the search.

Queue Information

The Queue Information box specifies the ACD queue or agent group used in the search. When you enter an ACD queue or agent group number, the search results contain records specific to the ACD queue or agent group.

Queue Events

When you select all three Queue Events check boxes, the search results contain records for all agent groups and queues, and all telephone system refresh cycles. The telephone system performs a re-synchronization and generates a refresh record every time it notices the date or hour has changed (once an hour).

Agent Information

The Agent Information boxes specify the range of values for the Agents Available statistic used in the search. For example, if you select a range of 5 to 10, the search results contain records for all calls during periods when 5 to 10 agents were logged on to the ACD.

Call Waiting/Longest Waiting Settings

The Call Waiting Settings and Longest Waiting Settings boxes specify ranges of values for the Calls Waiting and Longest Waiting statistics. For example, selecting a range from 10 to 999 in the Calls Waiting box produces all records for calls received during periods when more than 10 callers waited in queue.

Reset Criteria

The Reset Criteria button resets all search parameters to their default settings.

ACD search criteria - option events

Figure 8-3 appears when you click the Option Events tab. It displays the time range, error, and information criteria used in the search.

Figure 8-3 ACD search criteria - option events

Select Dates/Delete Dates

The Select Dates button specifies one or more days to be included in the search. The Delete Dates button deletes the search date currently selected.

Select Sites

The Select Sites check boxes specify the origin of the data used in the search.

Time Ranges

The Time Ranges boxes specify the time interval used for the search. The time interval applies to searches on agent and queue events.

Exception Records

The prairieFyre Service tags telephone system records that contain errors with an *E* (telephone system 1) or *e* (telephone system 2). Under Exception Records, you select the Error Records check box to include these records in the search output.

The prairieFyre Service writes a log record to the data stream upon start up. It tags the log record with an *I* to indicate it is an information record. You select the Information Records check box to include log records in the search output. ACD Inspector displays the error and information search result records on the Exception Records tab.

In call centers that have two telephone systems, the prairieFyre Service tags records from the second telephone system with an *S*. You specify the comports used by your telephone systems on the System Settings tab of the Management Console program.

Reset Criteria

The Reset Criteria button resets all search parameters to their default settings.

ACD search criteria - download status

Figure 8-4 appears when you click the Download Status tab. It displays status messages on the progress of files being transferred from the server to the client computer. Typically you will only see status messages if your network is slow.

Figure 8-4 ACD search criteria - download status

ACD search criteria - advanced

Figure 8-5 appears when you click the Advanced tab. It compares the agents answering calls to a particular queue group to the agents who are members of the group and a particular team.

NOTE: When you perform an advanced search, ACD Inspector ignores all other search criteria.

You select a member from the Queue Group list and the Team list when you perform a search. Do not use wild card symbols such as the star [*] or pound sign [#] in the search.

Figure 8-5 ACD search criteria - advanced

Select Dates/Delete Dates

The Select Dates button specifies one or more days to be included in the search. The Delete Dates button deletes the search date currently selected.

Select Sites

The Select Sites check boxes specify the origin of the data used in the search.

Queue Group and Team

When you select a queue group and team, the search output displays

- The agents associated to the queues in the selected queue group
- The agents associated to the selected team
- Answered calls involving agents who are not members of the queue group
- Answered calls involving agents who are not members of the team
- The agents who answered calls that are members of the queue group or team
- The agents associated to the queue group but not to the team
- The agents associated to the team but not to the queue group

Reset Criteria

The Reset Criteria button resets all search parameters to their default settings.

Running searches in ACD Inspector

When you run a search, Inspector searches through the raw telephone system data on the local hard drive.

NOTE: When you program the telephone system with a path number such as six, you enter this number in the YourSite Database as queue reporting number P006 (for the SX-2000) or P0006 (for the SX-200 and the SX-200 with real-time). ACD queue numbers are four digits in length: P001 (for the SX-2000), or five or six digits in length: P0001 or P00001 (for the SX-200 and the SX-200 with real-time). When you run searches on queues in ACD Inspector, be sure to include a *P* preceding the queue number.

Wildcard Searches

On the ACD Inspector criteria tabs, some of the search fields contain question marks. You can enter an extension number, such as *3000*, in the Extension search field (on the Agent Events tab) and the search will produce only records involving Extension 3000. Alternatively, you can run wildcard searches. For example, if you enter *"."* in the Extension search field and *P5000* in the ACD Queue or Agent Group field (on the Queue Events tab), the search will produce only records that involve queue P5000 AND ANY extension. If you enter *"???????"* in the Extension search field, the search will produce only records that involve ANY extension.

The following example demonstrates how to run a queue event search in ACD Inspector. Suppose you want to view the longest waiting records for Queue P001 on March 15, 2000.

To examine the longest waiting records for queue P001:

1. Click the **ACD Inspector Criteria** tab.
2. Click the **Queue Events** tab.
3. Click **Select Dates** and select **March 15, 2000**.
4. In the **Local Calls Waiting** boxes, enter **010** to **999**.
5. Select the **Q - Queue** check box.
6. Type **P001** in the **ACD Queue or Agent Group** box.
7. Click **Start Search**.

The ACD Inspector Results - Agent Events screen appears.

8. Click the **Queue Events** tab.

Figure 8-6 appears.

Figure 8-6 Queue event call waiting records

Node	Date	Function / Event	Time	Report Number	# of Calls Waiting (Local)	# of Active Agents (Local)	Longest Call Waiting	# o W (R
Chicago	2000/03/15	Q - Queue	08:59:31	001	4	6	08:14	Not /
Chicago	2000/03/15	Q - Queue	08:59:46	001	3	6	07:45	Not /
Chicago	2000/03/15	Q - Queue	09:00:01	001	3	6	08:00	Not /
Chicago	2000/03/15	Q - Queue	09:00:16	001	4	6	03:34	Not /
Chicago	2000/03/15	Q - Queue	09:00:31	001	4	7	03:27	Not /
Chicago	2000/03/15	Q - Queue	09:00:46	001	3	7	00:39	Not /

Print

Agent Events | Queue Events | Option Events | Exception Events | Advanced

Search complete   Total Records: 22240   Bad Records: 1

Save Search   Stop Search   Print All

ACD Inspector Criteria | ACD Inspector Results

The first record in the search output shows that at 08:59:31 hours 4 calls waited in queue and the longest waiting caller waited eight minutes and fourteen seconds. There were 6 agents logged in (and busy).

Interpreting ACD search results

This section describes the ACD search output records available. When you run a search in ACD Inspector, Figure 8-7 appears. It displays call event records for ACD agents.

Figure 8-7 ACD search results - Agent Events tab

Agent Events tab

The Agent Events tab displays call event records for ACD agents.

Node
The Node field identifies the switch that produced the event record.

Date
 The Date field displays the date of the event record.

Function/Event
The Function/Event field displays the following agent state, logon, and logoff events.

Time
The Time field displays the time the event occurred.

Directory Number
The Directory Number field displays the extension number used in the call.

Agent ID

The Agent ID field displays the agent number for the agent involved in the call.

Line Number

The Line Number field displays the telephone line the agent used to pick up or originate the call.

Make Busy/DND

The Make Busy/DND field displays the Make Busy or DND status for the agent involved in the call.

The following agent event record information originates from the Mitel "SX-2000 Applications Package" on the "SX-2000 Technical Documentation CD-ROM" (PN 9125-080-221-NA).

Agent Log In

This record is generated each time an agent successfully logs on. When an agent logs on, Make Busy and DND are removed on that extension. No record is generated for the removal of Make Busy. A remove DND record will only be generated if the extension was in DND. The extension number is the prime line of the ACD set which an agent is logged on to.

Agent Log Out

This record is generated whenever an agent successfully logs off. If agent A is currently logged on extension X and agent B logs on to extension X, a log off record is automatically generated for A. This is followed by the log on record for B. Make busy is automatically enabled on the extension when the agent logs out. No remove make busy record is generated. The extension number is the prime line of the ACD set which an agent is logged on.

Set Do Not Disturb

A record is not generated when a hunt group is placed in DND. The records do not differentiate between setting DND locally and remotely. The extension number reported is always the prime line of the ACD extension. A set DND record will be generated for the following conditions:

- Setting DND locally by using the DND access code
- Setting DND remotely by using the remote DND access code
- Setting DND remotely by using the attendant console features key
- Setting DND locally on a SUPERSET 4 telephone by pressing the select features hardkey and dialing the digit 2 or setting it on a SUPERSET 4DN or SUPERSET 430 telephone by pressing the DO NOT DISTURB Feature Key

Remove Do Not Disturb

The extension number is always the prime line of the ACD extension. A clear DND record will be generated for the following conditions:

- Clearing DND locally by using an access code
- Clearing DND remotely by using the Cancel Remote DND access code
- Clearing DND remotely by using the attendant console feature key
- Clearing DND by using the Cancel All Features access code
- Clearing DND by using the Cancel All DND feature on the attendant console
- Agent logging in on an extension in DND
- Setting Make Busy

This record is generated whenever an extension is placed in the Make Busy state. A record is not generated when an agent logs out because Set Make Busy is implied when an agent log out record is received. The extension number is always the prime line of the ACD extension.

Remove Make Busy

This is similar to Set Make Busy. No record is generated when the agent logs in. The remove make busy is implied by the log in record. The extension number is always the prime line of the ACD extension.

Answer ACD Call

This record is generated whenever an agent answers a call that was directed to the ACD hunt group. The event record contains the Agent ID and extension number (hunt group pilot number to which the call was placed). The ACD extension that answered the call can be determined by using the last agent log in event for that extension. If the ACD set does not have a logged in agent, the Agent ID area is blank and the extension number is that extension's prime line.

Answer Personal Call

All non-ACD hunt group calls are included in this category. The extension number is always the prime line of the ACD extension that answered.

Originate Call

This record is generated whenever an agent originates a call and enters a conversation. A record is not generated under the following conditions; entering a feature access code, dialing an invalid number, or hanging up before the called party answers. An agent extension number is always the prime line of the ACD set that originated the call.

Agent Idle

If Work Timer is in effect, the Agent Idle record is generated when the work timer expires or when it is cancelled. If the agent enters Make Busy while Work Timer is in effect, an Agent Idle record is generated followed immediately by a Set Make Busy record. A record is not generated to show the end of the call or the start of the work timer. This entire period is treated as part of the time to process the call.

If Work Timer is not in effect, the Agent Idle record is generated at the end of a call, not when the agent hangs up. For example, if the agent presses the HANG-UP softkey and remains off hook for 5 seconds, the record is generated when the HANG-UP is pressed, not when the agent actually goes on hook. The extension number is always the prime line of the ACD set that is now idle.

Work Timer Start Event

This record is generated when an agent terminates an ACD call and the a work timer is started for that agent. If the work timer cannot be started, an idle event record is generated instead.

Work Timer Expire Event

This record is generated when the work timer expires for that agent.

Call Hold Event

When an agent places a call on hold, a record is generated for that line appearance. If the agent places another call or answers a call on a second line, the call event record for the new line will not cause confusion for the reporting package.

Hold Retrieve Event

When the held call is retrieved, a record is generated for that line indicating that the agent is now busy on that line.

Hold Abandon Event

When the held call is abandoned, a record is generated for that line.

Queue Events tab

Figure 8-8 appears when you click the Queue Events tab. It displays call event records for ACD queues and agent groups.

Figure 8-8 ACD search results - Queue Events tab

Date	Function / Event	Time	Report Number	# of Calls Waiting (Local)	# of Active Agents (Local)	Longest Call Waiting (Local)	# of Cal Waiting (Remot
2000/09/28	K - Agent Group	00:00:10	600	3	5	03:14	0
2000/09/28	Q - Queue	00:00:12	207	2	7	03:29	Not Availa
2000/09/28	Q - Queue	00:00:13	222	1	5	00:56	Not Availa
2000/09/28	K - Agent Group	00:00:25	600	2	5	01:11	0
2000/09/28	Q - Queue	00:00:27	207	1	7	01:07	Not Availa
2000/09/28	Q - Queue	00:00:28	222	1	5	01:11	Not Availa
2000/09/28	K - Agent Group	00:00:40	600	1	5	01:07	0
2000/09/28	Q - Queue	00:00:42	207	1	7	01:22	Not Availa
2000/09/28	Q - Queue	00:01:43	210	1	7	00:04	Not Availa
2000/09/28	Q - Queue	00:02:42	207	1	5	00:08	Not Availa
2000/09/28	Q - Queue	00:05:12	207	1	3	00:06	Not Availa
2000/09/28	Q - Queue	00:07:42	207	1	4	00:04	Not Availa

Print

Agent Events | Queue Events | Option Events | Exception Events | Advanced

Search complete | Total Records: 15681 | Bad Records: 0

Save Search | Stop Search | Print All

ACD Inspector Criteria | ACD Inspector Results

Node

The Node field identifies the switch that produced the event record.

Date

The Date field displays the date of the event record.

Function/Event

The Function/Event field indicates whether the event record is for a queue or an agent group.

Time

The Time field displays the time the event occurred.

Report Number

The Report Number field displays the agent group or queue reporting number.

Number of Calls Waiting (Local)

The Number of Calls Waiting (Local) field displays the number of callers waiting in queue for an available agent.

Number of Active Agents (Local)

The Number of Active Agents (Local) field displays the number of agents that are logged on and ready to receive ACD calls (not in Make Busy or DND).

Longest Call Waiting (Local)

The Longest Call Waiting (Local) field displays the wait time for the caller waiting the longest in queue for an available agent.

Number of Calls Waiting (Remote)

The Number of Calls Waiting (Remote) field displays the number of callers waiting in a remote queue for an available agent.

Longest Call Waiting (Remote)

The Longest Call Waiting (Remote) field displays the wait time for the caller waiting the longest in a remote queue for an available agent.

Option Events tab

Figure 8-9 appears when you click the Option Events tab. It displays telephone system refresh records.

Figure 8-9 ACD search results - Option Events tab

Node

The Node field identifies the switch that produced the event record.

Date

The Date field displays the date of the event record.

Function/Event

The Function/Event field displays refresh records. The refresh event signifies the start of a new cycle of group and queue statistics.

Time

The Time field displays the time the refresh event occurred. The telephone system performs a re-synchronization and generates a refresh record every time it notices the date or hour has changed (once an hour).

Exception Events tab

Figure 8-10 appears when you click the Exception Events tab. It displays error and information records.

Figure 8-10 ACD search results - Exception Events tab

Advanced Search tab

Figure 8-11 appears when you click the Advanced Search Results tab. It displays devices that answered calls for the queue.

Figure 8-11 ACD search results - Advanced tab

Queue Members Programmed	Team Members Programmed	Answered Call But NOT In Queue Group	Answered Call But NOT In Team	Answered Call and Member of Team or Queue Group	Queue Group Agents Not In Team	Team Agents Not In Queue Groups
000186	121	346	284	346	000186	121
100001	127	284	175	410	100001	127
100002	135	410	168	319	100002	135
100005	145	175	363	196	100005	145
100009	187	168	361	301	100009	187

Print

| Agent Events | Queue Events | Option Events | Exception Events | Advanced |

| 41 | 85 | 65 | 43 | 0 | 41 | 85 |

Save Search   Stop Search   Print All

| ACD Inspector Criteria | ACD Inspector Results |

Queue Members Programmed

This field displays the agents associated to the queues in the selected queue group.

Team Members Programmed

This field displays the agents associated to the selected team.

Answered Call BUT Not in Queue Group

This field displays answered calls involving agents who are *not* programmed in the YourSite Configuration Database as members of the queue group.

Answered Call BUT Not on Team

This field displays answered calls involving agents who are *not* programmed in the YourSite Configuration Database as members of the team.

Answered Call and Member of Team or Queue Group

This field displays the agents who answered calls that are members of the queue group or team programmed in the YourSite Configuration Database.

Queue Group Agents Not on Team

This field displays the agents associated to the queue group but not to the team.

Team Agents Not in Queue Groups

This field displays the agents associated to the team but not to the queue group.

Examples of ACD records

The following examples illustrate agent group and queue event records.

Example 1. Group Statistics Event

1999:12:29   006   20   14   11:33

The group statistics event indicates agent group (reporting number) 006, has 20 calls waiting, 14 available agents and the longest waiting caller has been queued for 11 minutes, 33 seconds.

Example 2. Queue Statistics Event

1999:12:29   P121   50   34   24:08

The queue statistics event indicates queue (reporting number) 121, has 50 calls waiting, 34 available agents and the longest waiting caller has been queued for 24 minutes, 8 seconds.

SMDR Inspector

When you click Tools=>SMDR Inspector Figure 8-12 appears. SMDR Inspector searches on call event records.

SMDR search criteria

The SMDR search tabs include Call Parties, Call Types, Options, Advanced, Agent Shift Search, and Download Status.

Figure 8-12 SMDR Inspector main screen - call parties

SMDR search criteria - call parties

Figure 8-12 displays the call party criteria used in the search.

Select Dates/Delete Dates

The Select Dates button specifies one or more days to be included in the search. The Delete Dates button deletes the search date currently selected.

Select Sites

The Select Sites check boxes specify the origin of the data used in the search.

Digits Dialed

The Digits Dialed box specifies the queue number of the queue that picks up the call (for inbound calls) or the phone number the agent dials (for outbound calls). The ANI Digits box specifies the area code and telephone number for an inbound call. The search results contain records specific to the caller's area code and telephone number. The DNIS Digits box specifies the telephone number the caller dials, in call centers where agents answer calls for more than one business or product line. The Account Code box specifies the account code number used in the search. Agents enter account code numbers to tag inbound and outbound calls.

Call Parties

The Calling Party box specifies the extension or agent number (for an outbound call), or the trunk number (for an inbound call) used in the search. The Called Party box specifies the extension or agent number (for an inbound call), or the trunk number (for an outbound call) used in the search. The Third Party box searches for call records on the extension number used in a transfer.

Reset Criteria

The Reset Criteria button resets all search parameters to their default settings.

SMDR search criteria - call types

Figure 8-13 appears when you click the Call Types tab. It displays the call type criteria used in the search.

Figure 8-13 SMDR search criteria - call types

Select Dates/Delete Dates

The Select Dates button specifies one or more days to be included in the search. The Delete Dates button deletes the search date currently selected.

Select Sites

The Select Sites check boxes specify the origin of the data used in the search.

Call Types

The Call Types check boxes specify one or more categories of calls used in the search. The telephone system generates an Unavailable (Path Unavailable Calls) event record when a caller dials a queue and the queue is not available (in DND) or there are no agents logged on to answer the call.

Answered Supervision

The Answered Supervision check box searches for call records involving calls transferred between employees. In an answered supervised call, an employee dials another employee's extension to transfer a call, and waits until the employee picks up the call before hanging up.

Busy Callee

The Busy Callee check box searches for call records on queues or extensions the caller dials but finds busy.

Error by Caller

The Error by Caller check box searches for call records on numbers the caller dials that are not recognized by the telephone system.

TAFAS Answered

The TAFAS Answered check box searches for call records that involve calls manually picked up by agents at alternate extensions. In a TAFAS answered call, an employee hears another employee's phone ring and dials a number to pick up the call.

Internal Call

The Internal Call check box searches for call records on calls between employees that do not involve trunks.

Blank

The Blank check box searches for call records that have no data in the Call Completion field. That is, when the check box is selected, the search output contains records where there is nothing recorded in the Call Completion field.

Attendant Involved

The Attendant Involved radio buttons specify whether or not call records for calls involving an automated attendant are used in the search.

Transfer/Conference

The Transfer/Conference check box searches for records on transferred or conferenced calls, or interflowed calls that are not picked up by an agent.

Speed Call/Forward

The Speed Call/Forward check boxes search for call records involving a speed dial and/or conference function. When the Blank check box is selected, the search output contains records where there is nothing recorded in the Speed or Fwd check boxes.

System ID

The System ID check box searches for call records that pertain to a specific telephone system. In a multi-site enterprise, you program each telephone system with a 3-digit system ID number. You can distinguish records by their system ID number. The telephone system appends it to all SMDR records.

Reset Criteria

The Reset Criteria button resets all search parameters to their default settings.

SMDR search criteria - options

Figure 8-14 appears when you click the Options tab. It displays the time range, error, and information criteria used in the search.

Figure 8-14 SMDR search criteria - options

Select Dates/Delete Dates

The Select Dates button specifies one or more days to be included in the search. The Delete Dates button deletes the search date currently selected.

Select Sites

The Select Sites check boxes specify the origin of the data used in the search.

Time Ranges

The Time Ranges boxes specifies the time interval used in the search.

Time to Answer

The Time to Answer boxes specify a range of values for the Time to Answer statistic used in the search. For example, if you select a time to answer of 240 to 999 seconds, the search records include calls that were answered by an agent after waiting at least 240 seconds to be answered.

Call Duration

The Call Duration boxes specify a range of values for the Call Duration statistic used in the search.

Exception Records

The prairieFyre Service tags telephone system records that contain errors with an *E* (telephone system 1) or *e* (telephone system 2). You select the Error Records check box to include these records in the search output.

The prairieFyre Service writes a log record to the data stream upon start up. It tags the log record with an *I* to indicate it is an information record. You select the Information Records check box to include log records in the search output. ACD Inspector displays the error and information search result records on the Exception Records tab.

In call centers that have two telephone systems, the prairieFyre Service tags records from the second telephone system with an *S*. You specify the comports used by your telephone systems on the System Settings tab of the Management Console program.

Reset Criteria

The Reset Criteria button resets all search parameters to their default settings.

SMDR search criteria - advanced

Figure 8-15 appears when you click the Advanced tab. It verifies the agents, agent groups, and queues *not* programmed in the Yoursite Database.

Figure 8-15 SMDR search criteria - advanced

If you run a report and notice that the data for a particular device is missing from the report output, verify the device is programmed in the telephone system and in the YourSite Database. If you determine the device is missing from the database, add it to the database and use the Summarize Data command (on the Management Console program) to update the prairieFyre Service and the SQL database with the complete telephone system data. You can then produce reports on the device.

NOTE: When you perform an advanced search, SMDR Inspector ignores all other search criteria. You enter information in the Queue *or* the Agent box when you perform a search. Do not use wild card symbols such as the star [*] or pound sign [#] in the search.

Select Dates/Delete Dates

The Select Dates button specifies one or more days to be included in the search. The Delete Dates button deletes the search date currently selected.

Select Sites

The Select Sites check boxes specify the origin of the data used in the search.

Queue Search

When you type a queue number in the Queue box, the search output displays

- The agents that answered calls for the queue that are programmed in the Yoursite Database
- The agents that answered calls for the queue that are not programmed in the Yoursite Database

Agent Search

When you type an agent or queue number in the Agent box, the search output displays

- The queues or agent groups for which the agent answered calls that are programmed in the Yoursite Database for the agent
- The queues or agent groups for which the agent answered calls that are not programmed in the Yoursite Database for the agent

Reset Criteria

The Reset Criteria button resets all search parameters to their default settings.

SMDR search criteria - agent shift

Figure 8-16 appears when you click the Agent Shift tab. It displays the shift information criteria used in the search.

Figure 8-16 SMDR search criteria - agent shift

Select Dates/Delete Dates

The Select Dates button specifies one or more days to be included in the search. The Delete Dates button deletes the search date currently selected.

Select Sites

The Select Sites check boxes specify the origin of the data used in the search.

Agent Information

The Agent Information boxes specify the agent ID, agent group, or extension used in the search.

Shift Information

The Shift Information boxes specify ranges of values for the login time and shift duration used in the search.

Reset Criteria

The Reset Criteria button resets all search parameters to their default settings.

SMDR search criteria - download status

Figure 8-17 appears when you click the Download Status tab. It displays status messages on the progress of files being transferred from the server to the client computer. Typically you will only see status messages if your network is slow.

Figure 8-17 SMDR search criteria - download status

Running searches in SMDR Inspector

When you run a search, SMDR Inspector searches through the raw telephone system data on the local hard drive.

NOTE: When you program the telephone system with a path number such as six, you enter this number in the YourSite Database as queue reporting number P006 (for the SX-2000) or P0006 (for the SX-200 and the SX-200 with real-time). ACD queue numbers are four digits in length: P001 (for the SX-2000), or five or six digits in length: P0001 or P00001 (for the SX-200 and the SX-200 with real-time). When you run searches on queues in ACD Inspector, be sure to include a *P* preceding the queue number.

Wildcard Searches

On the SMDR Inspector criteria tabs, some of the search fields contain question marks. You can enter a DNIS number, such as *3000*, in the DNIS search field (on the Call Parties tab) and the search will produce only records that involve DNIS number 3000.

Alternatively, you can run wildcard searches. For example, if you enter *"."* in the DNIS search field and *P5000* in the Digits Dialed field, the search will produce only records that involve queue P5000 AND ANY DNIS number. If you enter *"???????"* in the DNIS search field, the search will produce only records that involve ANY DNIS number.

To search for a string of numbers within a digits dialed string, enclose the string of numbers in parenthesis, such as "8905". The search will produce only records that include *8905* in the digits dialed string.

To search for records where the calling, called or third party involved a trunk (BOTH T and X in one search), put a C in the calling, called or third party field (C as in CO).

The following example demonstrates how to run an advanced search in SMDR Inspector.

Suppose your Agent Group and Queue Reports do not line up: your Agent Group Report shows less calls answered than your Queue Report. You know that only one Agent Group is scheduled to answer calls for the queue. You need to find out which other agents were answering calls for the queue.

To determine which other agents answered calls for the queue:

1. Click the **SMDR Inspector Criteria** tab.
2. Click the **Advanced** tab.
3. Click **Select Dates** and select **January 23, 2000**.
4. In the **Queue** box type **P121**.
5. Click **Start Search**.

The SMDR Inspector Results - SMDR Search Results screen appears.

6. Click the **Advanced Search Results** tab.

Figure 8-18 appears.

Figure 8-18 Agents who answered calls for the queue

The search output shows
* The agents that answered calls for P121 that *are* programmed in the YourSite Database
* The extensions and agents that answered calls for P121 that *are not* programmed in the YourSite Database

You can print the search results and compare them to the YourSite Database programming.

Interpreting SMDR search results

This section describes the SMDR search output records available. When you run a search in SMDR Inspector Figure 8-19 appears.

Figure 8-19 SMDR search results - SMDR Search Results tab

Node	Date	Start	Duration	Calling	Time to Answer	Digits Dialed	Call Completion	Sp
Biddeford	09/28	00:29	0000:03:45	X179	003	92823439		
Biddeford	09/28	00:29	0000:03:45	X179		92823439		
Biddeford	09/28	00:36		3010		61		
Biddeford	09/28	00:36		3010		6473087		
Biddeford	09/28	00:37	0000:00:14	3010		2076473087	A	
Biddeford	09/28	00:55	0000:05:10	X73	xxx	P500 100 101		S
Biddeford	09/28	01:28	0000:10:38	X79	xxx	P500 100 101		S
Biddeford	09/28	02:02	0000:05:33	X85	xxx	P500 100 101		S
Biddeford	09/28	06:13	0000:00:26	T6	000	3900		
Biddeford	09/28	06:14	0000:00:26	T6	015	3010 3900		
Biddeford	09/28	06:14	0000:00:03	T6	016	3010 3900		
Biddeford	09/28	06:18	0000:00:16	3008		918005983104		
Biddeford	09/28	06:18	0000:00:16	X64	xxx	P207 100 101		S
Biddeford	09/28	06:18	0000:00:14	3008		918005991704		

Print

SMDR Search Results | Advanced Search Results | Agent Shift Results | Exception Results

| Tot: 2176 | Ans: 119 | Abd: 366 | Int: 8 | Req: 24 | Un: 6 | Out: 579 | Bad: 0 | /2241 | Search complete |

Save Search | Stop Search | Print All

SMDR Inspector Criteria | SMDR Inspector Results

SMDR Search Results tab

The SMDR Search Results tab displays call event records for ACD agents. It displays call event search records.

Node
The Node field identifies the switch that produced the event record.

Date (mm/dd)
The date is reported numerically as a 2-digit month followed by a 2-digit day. The year is not reported.

Start Time (hh:mmp)

The start time of a call is reported in hours and minutes in either a 12- or 24-hour format. If a 12-hour clock is used, the letter *P* indicates P.M.

Duration of Call (hh:mm:ss)

 The duration of a call is reported in hours, minutes and seconds. Leading zeros are output (Maximum time = 99 hours, 59 minutes, 59 seconds). If the call duration exceeds 100 hours, a call duration of 99 hours, 99 minutes, 99 seconds will be recorded.

Calling Party (pppp)

This is the identity of the party that originated the call. It may be a station, an attendant, or an incoming trunk, as described below:

(a) Station Number as Calling Party (cccc). A station number may be one to four digits (0-9, *, #) which are left-justified; that is, no leading zeros.

(b) Attendant as Calling Party (ATTm). Calls originated by an attendant that do not involve a third party are reported as a calling party by ATT followed by the console number. When the console number is in the range of 10 through 99, the format is modified to be ATmm. If an attendant calls an outside party on behalf of a station or trunk, that station or trunk is reported as the caller but the attendant flag symbol [*] appears in the Attendant was Involved field.

(c) Trunk Number as Calling Party (Tnnn or Xnnn). When the originating party is an incoming CO trunk, *Tnnn* appears on the record, where *nnn* is the number of the trunk. If the trunk number is less than three digits long, it is left-padded with zeros. If the extended digit length option is enabled, the trunk number *nnnn* may be up to four digits long, left-justified and without leading zeros. When the originating party is an incoming non-CO trunk, *Xnnn* appears in the trunks record.

The *T* or *X* ensures that CO trunks and CO Attendant trunks can be distinguished from tie trunks. The trunk number is the trunk ID specified during customer data entry in the Trunk Assignment form.

Attendant (f)

This 1-digit field contains an asterisk [*] when a call is assisted by, or initially answered by, an attendant. This flag will not appear if a call is transferred to an attendant.

Time to Answer (ttt)

This is the number of seconds from the time an incoming external call rings the destination until the call is answered. If a call is never answered, this field displays three asterisk [***]. Leading zeros are output and the field remains at 999 when an overflow is reached. If the MITEL Call Distribution (MCD) feature package is installed, and the MCD report transfers option is enabled, this field contains the total time to answer regardless of the number of times the call is rerouted. This field does not apply to Internal SMDR.

Digits Dialed (xx...x)

External SMDR: The external SMDR application records the digits dialed on the outgoing trunk. A maximum of 26 digits is recorded. This number is reduced to 20 when the Report Meter Pulses option is selected in CDE. This field does not include the trunk group access code on outgoing calls. The digits recorded are the actual digits outpulsed on the trunk after digit modification has been performed. On incoming calls, the digits dialed in on the trunk are recorded. When more than 26/20 digits are dialed, the remaining digits are ignored.

If the MCD option is enabled, each device is listed whenever the call is rerouted, rather than the last device as in non-MCD loads. To reflect the MCD option, the Digits Dialed on the Trunk field shows dd1 ddd2 ddd3.

Internal SMDR: The Internal SMDR application records the digits dialed on an internal line. Up to 26 digits are recorded.

Call Completion Status (h)

External SMDR (Outgoing Calls): This reports the completion status of an outgoing call in so far as the telephone system is able to determine it. When an outgoing call fails toll-deny checking and is dropped, this field contains a *T*. When the trunk group is programmed to receive *Answer Supervision* and a supervision is received, an *A* is reported. When the trunk group is programmed for *Toll Reversal* and a supervision is received, a *T* is reported.

External SMDR (Incoming Calls): The telephone system can monitor the outcome of a call and can provide a comprehensive report on call completion. When the station or hunt group to which a call is directed is busy, a *B* is recorded. When an incoming trunk accesses an invalid number and receives reorder tone, an *E* is reported. An *E* is also reported for incomplete calls. A *T* is reported if the incoming trunk is answered with Trunk Answer From Any Station (TAFAS) and if an outgoing trunk call is toll denied, or if the call is Pickup answered. When an incoming call is forwarded by an attendant to a busy station, a *B* appears in the call completion status field, the number called appears as the third party, and the Attendant appears as the called party.

Internal SMDR: An *I* indicates that an internal call was completed.

Speed Call or Call Forward Flags (S or F)

This field contains an *S* when the number is speed dialed, and an *F* when an external call is forwarded through the external call forward feature.

If Internal SMDR is enabled, an *F* is also recorded when an internal call is forwarded through the call forward feature. However, for internal calls the Third Party field does not contain the number of the station that initiated the call forward feature. The Third Party field is left blank because the Digit Dialed field identifies the station that has call forward enabled.

Called Party (qqqq)

A called party can be a station number, an attendant, or for outgoing calls, the outgoing trunk number. The Called Party output format is identical to that used for the Calling party. See *Calling Party (pppp)*. For incoming calls to an attendant, the called party is recorded as the attendant unless the attendant transfers a call to a station. For direct-in-lines, it would be the station number. On outgoing calls handled by an attendant, the called party would be the outgoing trunk's ID.

Transfer/Conference Call (K)

This field identifies calls involving three or more parties. It contains a *T* for supervised transfers, *X* for unsupervised transfers (that is, transfer into busy reports a *T*, transfer into ringing reports an *X*), and a *C* for 3-way conversations or conferences.

Third Party (rrrr)

The third party field contains the number of the station to which a trunk call has been transferred. When several transfers take place during a trunk call, the first party is the only one reported, as long as MCD Report Transfers = *No*, and Record Transfers = *No*.

If an external call is made to a station whose call forwarding is set to an external number, the Third Party field contains the number of the station that initiated the call forward feature. For internal calls, the Third Party field is left blank because the Digit Dialed field identifies the station that has external call forward enabled.

Account Code (aa...a)

Enabling the report account codes option in the SMDR Options Assignment form allows an account code of two to 12 digits to be recorded here, if one is used to make a call. Leading zeros are reported if they are entered.

Route Optimization Flag (s)

At the starting and end nodes of a network call a flag will appear in this field if route optimization has taken place. A route optimized call involves two different trunks to the same party: the pre-optimization trunk and the post-optimization trunk. An SMDR record will be generated for both trunks, which will be distinguished by a lower case *r* for the pre-optimization trunk, and an upper case *R* for the post-optimization trunk. Route Optimization is only available with the MSDN/DPNSS Voice IV feature package.

System Identifier (iii)

This optional 3-digit field may contain values from *000* to *999*. *000* indicates that no identifier has been entered. In the absence of a System Identifier, a Node Identifier is printed (when programmed). When more than one node identifier exists, the first one on the programmed list is printed. When both a System ID and a Node ID are programmed, the System ID takes precedence. Programming of System Identifiers and Node Identifiers is described in the Customer Data Entry volume.

ANI/DNIS (xx........xxxxxxx)

ANI/DNIS digits are recorded in this field. ANI and DINS numbers can be up to 10 digits in length, and are recorded for incoming calls on ANI/DNIS trunks. COS option ANI/DNIS reporting must be enabled.

NOTE: If you enabled the extended digit length option in the telephone system SMDR Options Assignment form, the following fields will be affected.

Advanced Search Results tab

Figure 8-20 appears when you click the Advanced Search Results tab. It displays devices that answered calls for the queue.

Figure 8-20 SMDR search results - Advanced Search Results tab

Devices Programmed in the Database/Devices NOT Programmed in the Database

The search output shows

- The agents that answered calls for the queue that *are* programmed in the YourSite Database
- The extensions and agents that answered calls for the queue that *are not* programmed in the YourSite Database

You can print the search results and compare them to the YourSite Database programming.

Agent Shift Results tab

Figure 8-21 appears when you click the Agent Shift Results tab. It displays shift activity statistics for agents, agent groups, and extensions.   .

Figure 8-21 SMDR search results - Agent Shift Results tab

Node

The Node field identifies the switch that produced the event record.

Date (mm/dd)

The date is reported numerically as a 2-digit month followed by a 2-digit day. The year is not reported.

Group

The Group field displays the agent group to which the agent belongs.

Agent ID

The Agent ID field displays the identification number of the agent.

Extension

The Extension field displays the extension to which the agent logged on.

Login

The Login field displays the time the agent logged on.

Shift

The Shift field displays the total shift time for the agent.

ACD Calls Answered

The ACD Calls Answered field displays the total number of ACD calls answered by the agent.

Total Time on ACD

The Total Time on ACD field displays the total time the agent spent on ACD calls.

Number of Outbound Calls

The Number of Outbound Calls displays the total number of non-ACD calls answered by the agent.

Total Time on Outbound

The Total Time on Outbound calls field displays the total time the agent spent on outbound calls.

Make Busy

The Make Busy field displays the number of times the agent entered the make busy state.

Total Time in Make Busy

The Total Time in Make Busy field displays the total time the agent spent in the make busy state.

Exception Records tab

Figure 8-22 appears when you click the Exception Results tab. It displays error and information records.

Figure 8-22 SMDR search results - Exception Results tab

Node

The Node field identifies the switch that produced the event record.

Description

The Description field displays the record type: Error Record or Information Record.

Data Record

The Data Record field displays detailed information on the exception record.

SMDR record fields

This section describes the SMDR search output records available. The information originates from the Mitel "SX-2000 Applications Package" on the "SX-2000 Technical Documentation CD-ROM" (PN 9125-080-221-NA).

The telephone system records SMDR data in table format. Table 10-1 provides information used to interpret the SMDR Inspector search output. It summarizes the SMDR record fields and provides the meaning of the symbols used.

Table 10-1 Summary of fields in SMDR records

Name	Format	Definition	Notes
Date	mm/dd	mm = Month dd = Day	mm = 01 - 12 dd = 01 - 31
Start Time	hh:mmp	hh = Hours mm = Minutes p = pm	hh = 00 - 12 or 00 - 23 mm = 00 - 59 p = P.M. (12-hour clock)
Duration of Call	hh:mm:ss hhhh:mm:ss	hh:mm:ss = duration in hours:minutes:seconds hhhh:mm:ss = duration in hours:minutes: seconds	hh = 00 - 99 mm = 00 - 99 ss = 00 - 99 hhhh = 0000 - 9999 mm = 00 - 99 ss = 00 - 99
Calling Party	pppp ppppppp	cccc = Extension # Tnnn = Trunk # (CO) Xnnn = Trunk # (non-CO) ATTm = Attendant ccccccc = Extension # Tnnnn = Trunk # (CO) Xnnnn = Trunk # (Non-CO) ATTmm = Attendant	c = 0 - 9, *, # nnn = 000 - 999 m = Console # (ATmm for Attendant 00 - 99) c = 0 - 9, *, # nnnn = 0000 - 9999 mm = Console #
Attendant	f	* = Attendant -- = Attendant not involved	Attendant answered or initiated the call, then transferred it to an extension
Time to Answer	ttt	ttt = time in seconds (000 - 999) *** = Call unanswered	Leading zeros output. Incoming calls only.

Table 10-1 Summary of fields in SMDR records

Name	Format	Definition	Notes
Digits Dialed on the Trunk	xx...x x...x y...y or Tx...x y...y (Network Format)	Up to 26 (20 if metering) digits dialed on the trunk Network Format: up to 26 digits (20 if metering) in total	x = 0 - 9, *, # y = 0 - 9, *, # x...x = Node ID & Extension # (up to 14 digits); y...y = actual digits dialed Tx...x = Node ID & Trunk #
Call Completion Status	h	A = Answer Supervision B = Called Party Busy E = Caller Error I = Internal Call R = Requeue Call T = Toll-Denied, TAFAS answered, or Pickup answered	Outgoing Incoming Direct/Dial-In Incoming/Dial-In Incoming Incoming/Outgoing
Speed Call or Call Fwd Flags	S or F	S = Number was Speed called F = External call forwarded through External Call Fwd feature or internal call forwarded through Call Forward feature	Outgoing
Called Party	qqqq qqqqqqq	cccc = Extension # Tnnn = Trunk # (CO) Xnnn = Trunk # (non-CO) ATTm = Attendant ccccccc = Extension # Tnnnn = Trunk # (CO) Xnnnn = Trunk # (non-CO) ATTmm = Attendant	c = 0 - 9, *, # nnn = Range specified in telephone system form programming m = Console # (ATmm for Attendant 00 - 99) c = 0 - 9, *, # nnnn = 0000 - 9999 mm = Console #
Transfer/ Conference Call	K	T = Supervised Transfer X = Unsupervised Transfer C = 3-Way or Conference U = Path Unavailable I = Interflow	U and I only apply to ACD TELEMARKETER® 2000.

Table 10-1 Summary of fields in SMDR records

Name	Format	Definition	Notes
Third Party	rrrr rrrrrrr	cccc = Extension # cccccccc = Extension #	c = 0 - 9, *, # c = 0 - 9, *, #
Account Code (Opt.)	aa....a	Length of 2 to 12 digits	a = 0 - 9, space-filled
Route Optimizatio n Flag (Opt.)	s	r = pre-optimization trunk R = post-optimization trunk - = Space (no route optimization)	
System Identifier (Optional)	iii	Entered by System ID	i = 0 - 9 iii = 000 - 999 000 = No Code Entered In the absence of a System ID, a Node ID is printed (if programmed). When both System ID and Node ID are programmed, System ID takes precedence.
ANI/DNIS	xx...xxxxxxx	Format: -aaaaaaaaaa-dddddddddd - = blank a = ANIS digit d = DNIS digit Extended Digit Length Format: -aaaaaaaaaa-ddddddd	For Extended Digit Length format only the 7 right most DNIS digits are recorded.

Examples of external SMDR records

The following examples illustrate External SMDR call records, with and without Extended Digit Length, Network Format, and SMDR Record Transfer options enabled.

Example 1. 2-party outgoing call

06/13   11:42   00:08:29   214   16139252122   A T054   000

On June 13 at 11:42 A.M., station 214 accessed trunk number 54 and dialed *613-592-2122*. Answer supervision (A) was provided. The conversation lasted 8 minutes, 29 seconds.

Example 2. 2-party outgoing call

05/17   10:51   00:01:52   213   201   A   X082   1200   000

On May 17 at 10:51 A.M., station 213 accessed an identified tie trunk, then 201 to obtain a station in the other telephone system. The other telephone system provided answer supervision (A) and the conversation lasted 1 minute, 52 seconds. The trunk number was 082.

Example 3. 2-party incoming call

01/30   03:10P   00:02:22   T102   008   201   201   000

On January 30 at 3:10 P.M., incoming direct-in trunk number 102 rang in to station 201. The station answered after 8 seconds and the two parties talked for 2 minutes, 22 seconds.

Example 4. 2-party incoming call

03/12   09:11   00:01:12   X116   007   63224   224   000

On March 12 at 9:11 A.M., dial-in tie trunk 116 dialed hunt group with access code "63". Station 224 answered after 7 seconds, and the conversation lasted 1 minute, 12 seconds.

Example 5. Attendant-handled call - outgoing trunk

01/30   03:27P   00:35:11   201   *   16545996951   A   T052   000

On January 30, station 201 dialed the attendant and asked for an outside line. The attendant dialed 1-654-599-6951. At 3:27 P.M., the called party answered and the conversation lasted 35 minutes, 11 seconds. trunk number 52 was used. An A appears before the number of the trunk because the attendant handled the call (Answer supervision).

Example 6. Attendant-handled call - incoming trunk

04/15   01:42P   00:00:31   T090   *009   ATT2   000

On April 15 at 1:42 P.M., trunk 90 rang in to the attendant. After 9 seconds, the attendant at Console 2 answered. The calling party spoke to the attendant for 31 seconds, and then hung up.

Example 7. Calling station transfer call

04/02   09:36   00:04:55   103   5922122   T162T   100   000

On April 2 at 9:36 A.M., station 103 dialed a trunk access code followed by 592-2122. The called party answered, and after conversing, the caller transferred the called party to station 100. After further conversation station 100 hung up. The total period for both conversations was 4 minutes, 55 seconds. trunk equipment 162 was used for the call.

Example 8. Called station transfer call

03/12   07:42   00:03:06   T162   *003   241T   215   000

On March 12 at 7:42 A.M., trunk 162 rang the console and requested station 241. The attendant took 3 seconds to answer the call. Station 241 then transferred the call to station 215. The total conversation lasted 3 minutes, 6 seconds.

Example 9. Attendant-controlled conference (with trunk)

03/10   09:48   00:13:40   ATT1   5924130   T178C   000

At 9:48 A.M. on March 10, the attendant dialed the CO trunk access code and seized trunk number 178. The call was then completed by dialing 592-4130. After speaking to the called party, the attendant set up a controlled conference (C) by dialing some internal stations and adding them to the conference in turn. The conference lasted for 13 minutes, 40 seconds. The record does not show what or how many stations were added.

Example 10. Incoming call/call forward enabled at called station

01/13   10:22   00:02:35   X014   5922122   FT005   1200   000

At 10:22 A.M. on January 13, a call was received on an incoming trunk, 014. Because Call Forwarding was in effect at the called station (1200), the call was routed on a CO trunk (005) to the external number 592-2122.

Example 11. Internal call/call forward enabled at called station

01/13   10:25   00:05:57   1202   5922122   FT005   1200   000

At 10:25 A.M. on January 13, an internal call was generated at station 1202 to reach station 1200. Since station 1200 had Call Forwarding in effect, the call was routed to an external number, 592-2122 via an external CO trunk, number 005.

Advanced Inspector

Using Advanced Inspector, you can determine why there are discrepancies between reports, verify the programming of the telephone system and the YourSite Database, and compare the data output by the ACD and SMDR data streams. The results are displayed in a table. The search output also provides a written explanation for the results.

The following three examples demonstrate how to run searches in Advanced Inspector.

Example 1: Why are the Agent Performance by Period Reports and Agent Event by Period Reports different?

This search compares the SMDR and ACD data streams for agent events by time. You can search on ACD answered calls, personal answered calls, and/or outgoing calls.

Suppose you compare the Agent Performance by Period and Agent Event by Period Reports for a particular agent, and notice a discrepancy in the number of calls answered by the agent.

To examine the SMDR and ACD data streams for ACD answered and personal answered calls:

1. Type the URL **http://www.prairiefyre.com/**[your 6110 CCM Enterprise server address]**/6110 CCM/**.
2. Click **Tools=>Advanced Inspector**.

The Advanced Inspector window appears. See Figure 8-23.

Figure 8-23 Advanced Inspector window

3. Click **Why are the Agent Performance by Period Reports and Agent Event by Period Reports different**   and click **Next**.
4. Select the check boxes for agents you would like Inspector to analyze and click **Next**.
5. Select the **ACD Answered Calls** and **Personal Answered Calls** check boxes and click **Next**.
6. Select one or more dates and click **Next**.

Figure 8-24 appears.

Figure 8-24 Agent Performance by Period vs. Agent Event by Period

The search output for ACD answered and personal answered calls shows a discrepancy between the records produced by the ACD stream and those produced by the SMDR stream. The ACD stream produced a record for a personal call made at 10:16:50 and the SMDR stream did not.

The search output provides numerous possible explanations. The call center has an SX-200. The SX-200 does not support internal SMDR records, which is why the call was not reported by the SMDR stream.

Example 2: Do I have SMDR records for internal calls?

If you have an SX-2000 and the Internal Calls option is enabled on the telephone system, the output from this search provides all of the SMDR call records that pertain to internal calls, for one or more 6110 CCM nodes.

Suppose you think your agents are answering more calls than your agent reports suggest. This may be because Internal SMDR is not enabled on your telephone system and 6110 CCM is not reporting on internal calls.

To determine if you have internal SMDR enabled on the telephone system:

1. Click **Tools**=>**Advanced Inspector**.
2. Click **Do I have SMDR records for internal calls?** and click **Next**.
3. Select the check box for the 6110 CCM node you want to analyze and click **Next**.
4. Select one or more dates and click **Next**.

Figure 8-25 appears.

Figure 8-25 SMDR records for internal calls
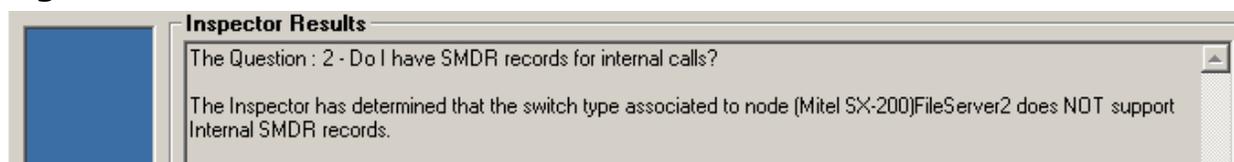
The message in Figure 8-25 pertains to the SX-200. The SX-200 does not produce SMDR records for internal calls. If you have an SX-2000 and have not purchased the Internal SMDR option and enabled it on the telephone system, or no data was generated for internal calls, the search will not report any SMDR records for internal calls.

Example 3: Do I have extended record formats in both data streams and the database?

This search compares the YourSite Database programming and the SMDR and ACD data streams to determine if the record format for a particular node has extended agent or extension IDs.

Call centers with extended agent or extension IDs (IDs greater than four digits) must have the Extended SMDR option enabled on the telephone system (SMDR Options/COS Assignment form) to prevent the telephone system from truncating the call record data.

Suppose your extension reports do not show any data. This can occur when the extension numbers in the YourSite Database are not associated to extension groups, or differ from those programmed in the telephone system. This can also occur when the extension numbers in the telephone system are greater than four digits and Internal SMDR is not enabled in the telephone system.

To examine the YourSite Database and SMDR and ACD data streams for extended record formats:

1. Click **Tools**=>**Advanced Inspector**.
2. Click **Do I have extended record formats in both data streams and the database?** and click **Next**.
3. Select the check box for the 6110 CCM node you want to analyze and click **Next**.
4. Select one or more dates and click **Next**.

Figure 8-26 appears.

Figure 8-26 Extended settings in the database and ACD and SMDR streams

The ACD and SMDR data streams are not generating extended agent or extension ID records. This means the telephone system is not programmed with extended IDs and the Extended SMDR option is not enabled. The agent and/or extension numbers in the YourSite Database are not extended. You must configure the agent and extension IDs in the YourSite Database to mirror those of the telephone system.

Table 10-2 describes the possible search output scenarios and what they mean in terms of the programming of the telephone system and the YourSite Database.

Table 10-2: Comparing IDs in the telephone system and YourSite Database

Extended Settings in Database	Extended Settings in ACD Data Stream	Extended Settings in SMDR Data Stream	Diagnosis
n	n	n	The telephone system and the YourSite Database have agent or extension IDs with four digits.
e	e	e	The telephone system and the YourSite Database have agent or extension IDs greater than four digits.
e	n	n	The telephone system has agent or extension IDs greater than four digits. The ACD and SMDR data streams are not generating extended ID records, possibly because Extended SMDR is not enabled. The YourSite Database has agent or extension IDs greater than four digits. Enable Extended SMDR on the telephone system.
n	e	e	The ACD and SMDR data streams are generating extended agent or extension ID records. This means the telephone system is programmed with extended IDs and the Extended SMDR option is enabled. The agent and/or extension numbers in the YourSite Database are not extended. You must configure the agent and extension IDs in the YourSite Database to mirror those of the telephone system.
n	e	n	The ACD data stream is generating extended agent or extension ID records, which means the telephone is programmed with extended IDs. The SMDR data stream is generating records with four digits: the SMDR records could be truncated. Ensure the Extended SMDR option is enabled. You must configure the agent and extension IDs in the YourSite Database to mirror those of the telephone system.

You can run the following additional searches in Advanced Inspector.

Switch related questions

Show the switch type from the data streams and the database

The search output reports the switch type (SX-200 or SX-2000) for the node based on the programming in the YourSite Database and the SMDR and ACD data streams, for one or more 6110 CCM nodes.

Do the data streams indicate a loss of data?

This search reports any loss of data on the SMDR or ACD data stream for the node selected. If data has been lost, the search output displays a table with the enterprise node, file type, and record concerned.

Is Report All Transfers enabled at the telephone switch?

If you have an SX-2000 and the Report All Transfers option is enabled on the switch, a new record is generated for each segment of a transferred call. For example, if Agent X transfers a call to Agent Y, and the Report All Transfers option is enabled on the switch, both Agent X and Agent Y are credited for the call. The search output provides all of the SMDR call records that pertain to the transferred call.

If you have an SX-2000 and you do not have the Report All Transfers option enabled on the switch, the search output provides an SMDR call record for Agent X, but not for Agent Y.

The SX-200 does not support the Report All Transfers option. If you run this search on an SX-200 you will receive the following message: "The Inspector has determined that the switch type associated to node (Mitel SX-200)FileServer2 does NOT support Internal SMDR records."

Queue related questions

Are there any calls that were routed due to Path Unavailable?

This search output reports any calls that were re-routed because a path (queue) was not available.

Show all records where the call was requeued

When an agent receives an ACD call and fails to pick up the call after X seconds or X rings, the telephone system places the agent in the make busy state. The telephone system requeues the call (places the call back in the same queue) and offers it to the next available agent. This requeued e-mail message has priority over the others and will be the next e-mail message answered.

The search output provides all of the SMDR call records that pertain to calls requeued, for one or more 6110 CCM nodes. It also provides a list of the agents requeuing the calls.

Show the answering devices and their search order for a specific queue

You can specify the answering priority of up to four agent groups (per queue) in the telephone system, and in the YourSite Database.

If the AnsBy columns in your queue reports do not display the statistics you expect, you can run the *Show the answering devices and their search order for a specific queue* search and compare the answering priority of your queues in the YourSite Database to see if it mirrors that of the telephone system. Typically, discrepancies result from errors in programming the YourSite Database.

The search output provides the following information:
- The agents in the YourSite Database that belong to the agent groups associated to the prioritized queues
- The agents who answered calls on the dates selected in the search
- The answering priority of the queues as programmed in the YourSite Database
- The answering priority of the queues as reflected in the SMDR data stream and programmed in the telephone system

Show all AnswerACD call records from the ACD stream where the queue does not take the form Pxxxx

Sometimes queue and agent reports do not line up because agents pick up calls from queues to which they are not associated. In this case, the queue reports contain records for the answered calls, but the agent reports do not.

The *Show all AnswerACD call records from the ACD stream where the queue does not take the form Pxxxx* search identifies agents who pick up calls for queues to which they are not associated.

The search output provides all of the ACD call records that pertain to ACD calls answered where the queue number did not have the form Pxxxx. The search output lists the agent ID, the time the agent answered the call, and the extension number of the agent who answered the call. It also provides a list of queues that do not follow the Pxxxx convention.

Show all times the ACD stream indicated there were no agents available for a queue or an agent group

This search output provides all of the ACD call records that pertain to instances when no agents were logged in to a particular queue.

Agent related questions

Compare the SMDR answering devices to the database members

This search examines the SMDR data stream and compares the agents answering calls to a particular queue group to the agents who are members of the group and a particular team. See Figure 8-27

When you select a queue group and team, the search output displays

- The agent group associated to the queues in the selected queue group
- The agent group associated to the selected team
- The agent group associated to the queue group but not to the team
- The agent group associated to the team but not to the queue group
- The agents who answered calls for the selected queue or queue group
- Answered calls involving agents who are not members of the queue group
- Answered calls involving agents who are not members of the team

Figure 8-27 Advanced Inspector - advanced search

Agent Groups As Members				Answering Agents/Devices		
Queue Group Members	Team Members	Queue Group Members NOT in Team	Team Members NOT in Queue Group	Answering Devices	Answering Devices NOT in the Queue Group	Answering Devices NOT in the Team
100	100	106	200			
103	103	109	201			
105	105	110	211			
106	107	112				
107	108	113				
108	200	114				
109	201	116				
110	210	118				
112	211	120				
113		121				
114		122				
116		123				
118		101				
120		102				
121		104				
122						

`<< Back`   `Next >>`

Show the agents who are NOT associated to an Employee

This search examines the database for agents who are not linked to an employee. If an agent is not linked to an employee then you will be unable to view that agent in real-time.

Show the agents whose last events were NOT logout events

This search examines the ACD data stream for agents who have not logged off the telephone system. You can run this report at the end of each day to verify that all telephones were logged off.

SuperAuditor

With SuperAuditor you can view the historical real-time events, at your own pace.

SuperAuditor makes it easy for you to analyze when and why past service problems occurred. When you determine how the call center should have reacted in the past, you will then know how the call center should react in the future under the same conditions. For example, you notice that on July 15 you have 12 calls abandon between 10:00 AM and 10:15 AM. You can review the calls and the agents' actions on that date for that time period with SuperAuditor. Did all the calls arrive at the same time? Did all the agents go on break at the same time? If all the calls arrived at once, you need to schedule more people. If all the agents went on break at the same time, you need to adjust their break schedule.

With SuperAuditor you can also track when employees log on and log off the system. It is easy to determine if any of the employees consistently start late or finish early.

When you click Tools=>SuperAuditor, Figure 8-28 appears.

SuperAuditor looks very similar to SuperAdvisor. The first tool bar is identical to both SuperAdvisor and SuperAuditor. It consists of the monitors that provided availability, queue, and graphic displays on queues. The monitors are: Agent State by Position, Employee State by Position, Agent State by time, Employee State by Time, Agent Shift, Queue by Period, Queue Now, Queue Group Now, Call count by Queue, Queue Service Level Percent, and Queue Status.

Remember that with SuperAdvisor you can create profiles to save threshold settings and display characteristics you define for monitors. With SuperAuditor, you can use these existing profiles, including alarm thresholds, when viewing past days run in real-time.

See Chapter 7 for more information on SuperAdvisor.

Figure 8-28 SuperAuditor
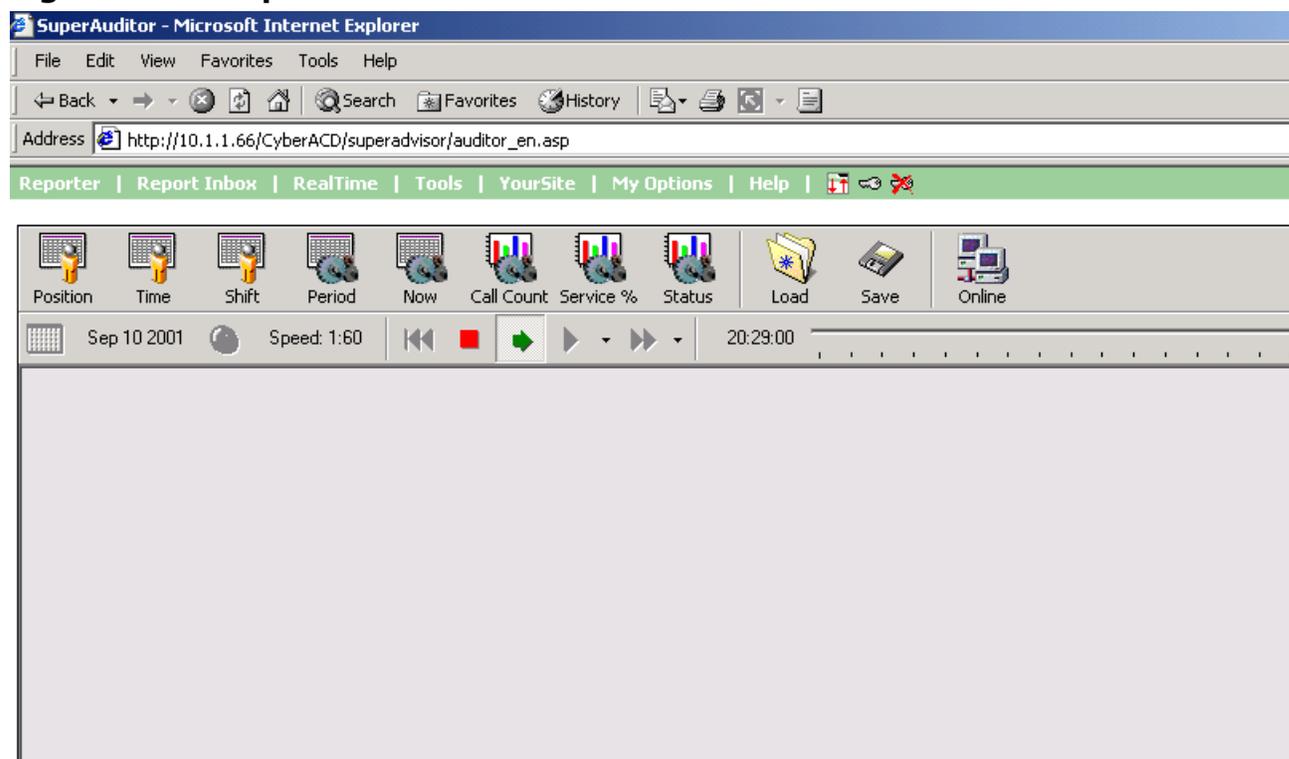
SuperAuditor icons

SuperAuditor has a second toolbar that SuperAdvisor does not. With it you select the date of the historical real-time events that you want to view and the speed at which to play the events. The icons are described in Table 11-3.

Table 11-3: SuperAuditor Icons

Icon	Term	Meaning
	Calendar	the date of the historical real-time events
	Clock/Speed of audit	the speed of audit, expressed as a ratio of real-time to play speed
	Rewind	when real-time historical events are stopped, click to move back to the beginning of the day
	Stop	stop the real-time historical events from playing
	Play	play the real-time historical events
	Step Forward	when real-time historical events are stopped, click to move forward in time by the small increment you have selected
	Jump Forward	when real-time historical events are stopped, click to move forward in time by the large increment you have selected
00:00:00	Slider	displays the time at which the historical real-time events occur
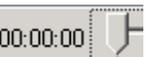
Calendar

You can select the date of the historical real-time events that you want to view by clicking on the calendar.

Clock/Speed of audit

The Speed of audit is expressed as a ratio of real-time to play speed. You can select the speed from a list of ratios that appears when you click the clock: 1:1, 1:2, 1:5, 1:10, 1:30, 1:60, and 1:120. If you select the ratio1:1, it will take you one second to view one second of the past day. If you select 1:60, it will take you one second to view one minute of the past day.

Rewind

If you click Rewind when the play is stopped, you jump back to the beginning of the day.

Stop

You can stop the real-time historical events from playing by clicking Stop.

Play

You can play the real-time historical events by clicking Play.

Step Forward

You can select the increment (in seconds) you will advance from a list that appears when you click the down arrow to the right of Step Forward: 1 sec, 2 sec, 5 sec, 10 sec, 15 sec, 30 sec, and 45 sec. If you select 30 seconds, then when the play is stopped, you can step forward in 30 second increments each time you click Step Forward. When you reach the end of data for that day, you will automatically jump to the end of the day.

Jump Forward

You can select the increment (in minutes) you will advance from a list that appears when you click the down arrow to the right of Jump Forward: 1 min, 2 min, 5 min, 10 min, 15 min, 30 min, and 60 min. If you select 10 minutes, then when the play is stopped, you can jump forward in 10 minute increments each time you click Jump Forward. When you reach the end of data for that day, you will automatically jump to the end of the day.

Slider

As you view the events of the day, the slider indicates the time at which the events occurred. The length of the slider represents the length of the day you are viewing historical real-time events for.

Viewing historical real-time events

1. Type the URL **http://www.prairiefyre.com/**[your 6110 CCM Enterprise server address]**/6110 CCM/**.
2. Click **Tools=>SuperAuditor**.
3. On the first toolbar, select the monitor you want to view historical real-time events for. For example, click **Time=>Agent by Time**.

The Device IDs window appears.

4. Select the Agent Groups and the Agent Group members you want to view historical real-time events for.
5. Click **OK**.

The Agent State by Time grid appears on the SuperAuditor screen. (See Figure 8-29.)

Figure 8-29 SuperAuditor: Agent State by Time (stopped)

6. On the second toolbar, click the calendar and select a date.

The date appears to the right of the calendar.

7. Click the clock and select the speed of audit.

The speed of audit, expressed as a ratio of real-time to play speed, appears to the right of the clock.

8. Click **Play** to play the real-time events of the selected date.

The historical real-time events start to play. (See Figure 8-30.)

9. Click **Stop** to stop the real-time events of the selected date.

Figure 8-30 SuperAuditor: Agent State by Time (playing)

Chapter 9 Enterprise Node (CEN)

Perform multi-site monitoring and reporting with 6110 CCM Enterprise Node.

6110 CCM Enterprise Node

6110 CCM Enterprise Node (CEN) is an add-on application that provides multi-site call center capabilities using a single-server configuration.

Multi-site reporting relies on two essential services: the prairieFyre Service (on the 6110 CCM Enterprise Server) and the Collector Service (on all enterprise nodes). At the local site, the collector(s) collects real-time telephone system data and files it to the local hard drive. At the remote site(s), the collector (CEN) collects real-time data, files it to the local hard drive, and streams it to the prairieFyre Service over TCP-IP. The prairieFyre Service provides enterprise-wide statistics so you can monitor real-time activities and run reports on any local or remote site within the enterprise.

You can run both services on a single computer or on separate computers, as illustrated in Figure 9-1.

Figure 9-1 6110 CCM Enterprise Node setup
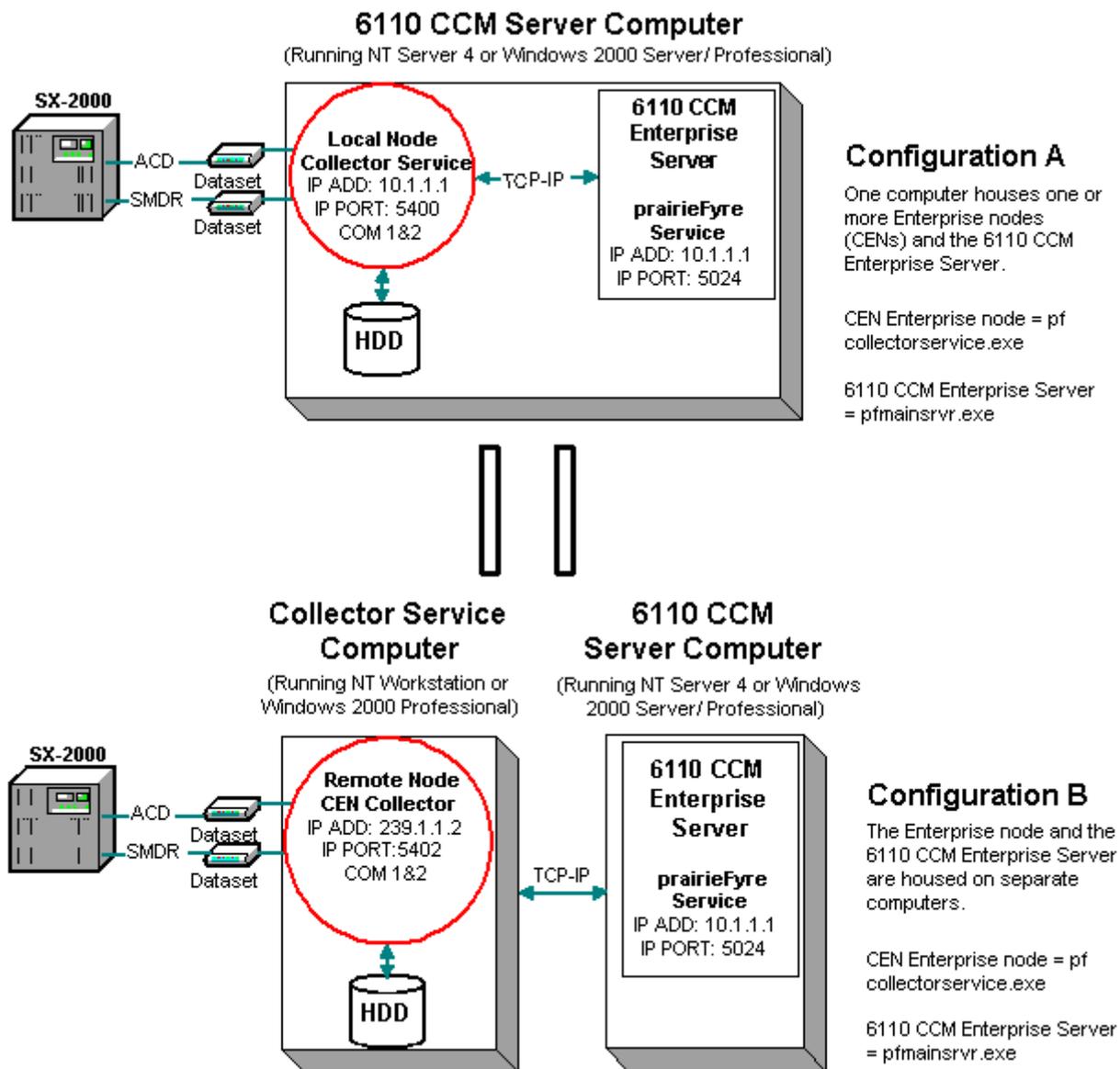
Local and remote collectors

A node is a data collection point for a single SX-2000 or SX-200 telephone system. Local collectors reside in call centers that have 6110 CCM Enterprise Server software installed. When you install 6110 CCM Enterprise Server software, a local collector is automatically installed on the *same* computer.

Remote collectors, or CENs, reside in call centers within your enterprise that do *not* have 6110 CCM Enterprise Server software installed. You manually install remote collector software on computers running NT Workstation or Windows 2000 Professional.

Local and remote collector software provides PBX-neutral data collection so you can produce reports on call centers with different Mitel telephone systems. The 6110 CCM Enterprise Server, and local and remote nodes provide the functions listed in table 12-1.

Table 12-1: Enterprise Responsibilities

Enterprise Server	Local collectors	Remote Collectors (CENs)
Collects real-time ACD and SMDR data from local and remote CENs	Collect ACD and SMDR data from a single telephone system	Collect ACD and SMDR data from a single telephone system
Summarizes data files to SQL and files ACD and SMDR data to the local hard drive	File ACD and SMDR data to the hard drive on the local computer	File ACD and SMDR data to the hard drive on the local computer
Provides enterprise-wide, real-time statistics to clients	Connect to other CENs via the 6110 CCM Enterprise Server	Connect to other CENs via the 6110 CCM Enterprise Server
Synchronizes the data from remote CENs with the data stored on the local hard drive		

Enterprise communications

You can view the real-time data collection and alarm configuration for any node within the enterprise, and manage call center operations over the Web (in a browser) for any node within the enterprise.

Viewing real-time data collection on the 6110 CCM Enterprise Server

To view real-time data collection for all nodes (collection points):

1. Click **Start**=>**Programs**=>**prairieFyre Software Inc.**=>**6110 CCM Network Monitor.**

The 6110 CCM Network Monitor (a black Figure) appears in the system tray on your desktop. The 6110 CCM Network Monitor communicates with the collector to which you are connected.

NOTE: By default, the 6110 CCM Network Monitor on the 6110 CCM Enterprise Server points to the default data collection point. The default data collection point is the 6110 CCM Enterprise Server Collector Service.

  2. Right-click the **6110 CCM Network Monitor** and click **Node Information**.
  3. Expand the **6110 CCM Enterprise Node** tree.

Figure 9-2 appears.

Figure 9-2 6110 CCM enterprise nodes
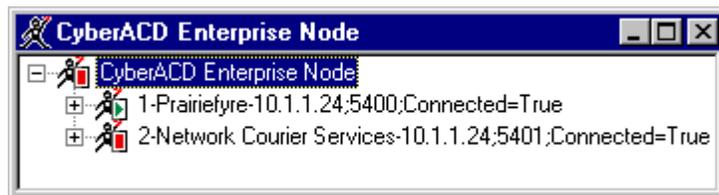
The 6110 CCM Enterprise Node tree lists all of the local and remote nodes in the enterprise, as defined in the Management Console application.

The preceding Figure displays two local nodes. Note that the local nodes share the same IP address as the 6110 CCM Enterprise Server, but have unique IP port numbers. Remote nodes (nodes that reside in call centers within your enterprise that do *not* have 6110 CCM Enterprise Server software installed) have a different IP address and IP port number than the 6110 CCM Enterprise Server.

  4. Expand the first node and click **6110 CCM Collector Monitor**.

The ACDLink main screen appears. It displays real-time data streaming from the telephone system to the primary node's Collector Service.

Figure 9-3 appears.

Figure 9-3 Node information
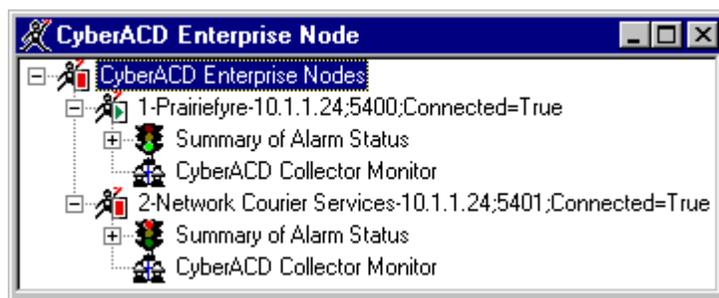
  5. Quit ACDLink.
  6. Expand the second node and click **6110 CCM Collector Monitor**.

The ACDLink main screen appears. It displays real-time data streaming from the telephone system to the secondary node's Collector Service.

Viewing data and system alarms

To view data and system alarms for a node:

1. In the Nodes tree, expand the **Summary of Alarm Status** tree for a node.

Figure 9-4 appears. It displays the status of all alarms for the node currently selected.

Figure 9-4 Summary of Alarms
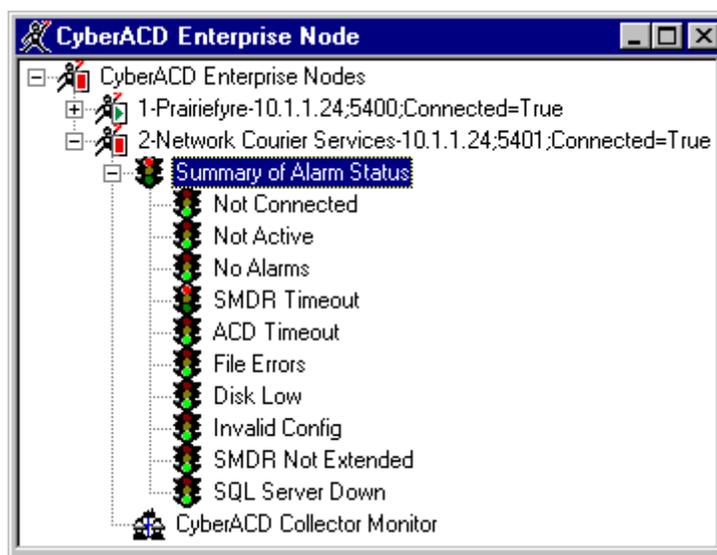
2. Right-click **Summary of Alarm Status**.

The 6110 CCM Collector Alarm Status Summary screen appears.

It informs you if/of
- The current time of the Collector Service computer as derived from the telephone system data stream
- The time interval during which the system raises data alarms if it detects the Collector Service is not receiving data
- The number of records received by the Collector Service that were not valid SMDR or ACD records
- The Collector Service is not receiving SMDR or ACD data
- The telephone system is truncating agent IDs and extension numbers that exceed four characters
- The Collector Service attempted to write to the local data drive (when the disk was full) at least once today
- The disk space is low on the disk housing the text files

Enabling and disabling the alarm beep

An audible alarm informs you if the ACDLink application disconnects from the Collector Service. The Disable Alarm command disables the audible alarm.

To enable the alarm:

1. Right-click the **6110 CCM Network Monitor** icon and click **Enable Alarm Beep**.

Enabling pop-up alerts

You can enable pop-up alerts that display system and data alarm information.

To enable pop-up alerts:

1. Right-click the **6110 CCM Network Monitor** icon and click **Enable Pop Up Alert**.

If a system or data alarm occurs, Figure 9-5 is displayed on top of all open applications.

Figure 9-5 Pop-up alarm
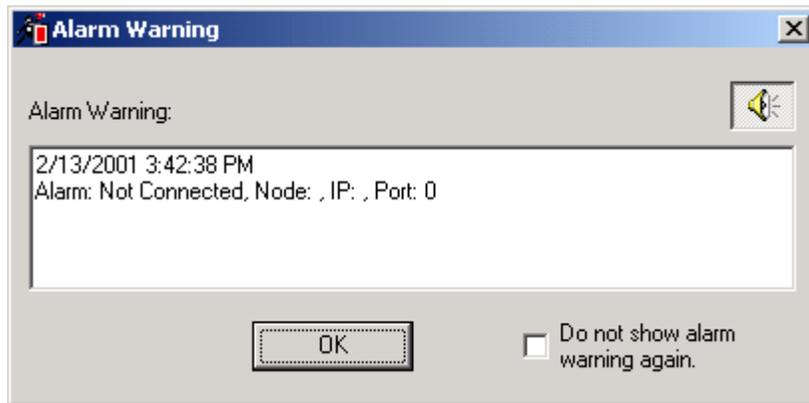
This message informs you that the Collector Service for the node has been disconnected from the telephone system. Pop-up alarms will notify you of the same types of errors presented on the 6110 CCM Collector Alarm Status Summary screen.

You can disable the beep that accompanies an alarm by clicking the speaker button (displayed in the preceding Figure). You can also prevent a message from re-appearing by selecting the Do not show alarm warning again check box.

Re-Initializing the Collector Service

The ReInitialize Collector command reconnects the ACDLink application to the Collector Service. If you accidentally disconnect the ACDLink monitor from the Collector Service, or the system detects Collector Service errors, the 6110 CCM Network Monitor icon turns red and blinks. You can select the Summary of Alarm Status screen to see a summary of the errors.

NOTE: Only 6110 CCM users with "Manager" permissions can re-initialize the Collector Service.

To re-initialize the Collector Service:

1. Right-click the **6110 CCM Network Monitor** icon and click **ReInitialize Collector**.
2. Log on with your user name and password and click **OK.**

Managing call center operations

You can communicate with the 6110 CCM Enterprise Server over the Web in I.E. 5, and manage call center operations for any node within the enterprise. If the Wide Area Network (WAN) link between a remote node and the 6110 CCM Enterprise Server goes down, the managers and supervisors at the remote node cannot view real-time data on their site until the WAN connection is restored. However, if the WAN link is down, data collection at the remote node continues.

To run a 6110 CCM session:

1. Start I.E. in your browser and type in the 6110 CCM Enterprise Server IP address **http://[the 6110 CCM Enterprise Server IP address]/6110 CCM/**.
2. Enter your username and password to log on to 6110 CCM.

The 6110 CCM main page appears. All menus and functions apply to all nodes in the enterprise.

In Figure 9-6, the two 6110 CCM Network Monitors communicate with the 6110 CCM Enterprise Server Collector Service, the default data collection point. They talk to Local Node 1 over IP Address 10.1.1.1 and IP Port 5024. The 6110 CCM Enterprise Server collects real-time ACD and SMDR data from the local and remote nodes over TCP-IP.

Figure 9-6 6110 CCM Enterprise
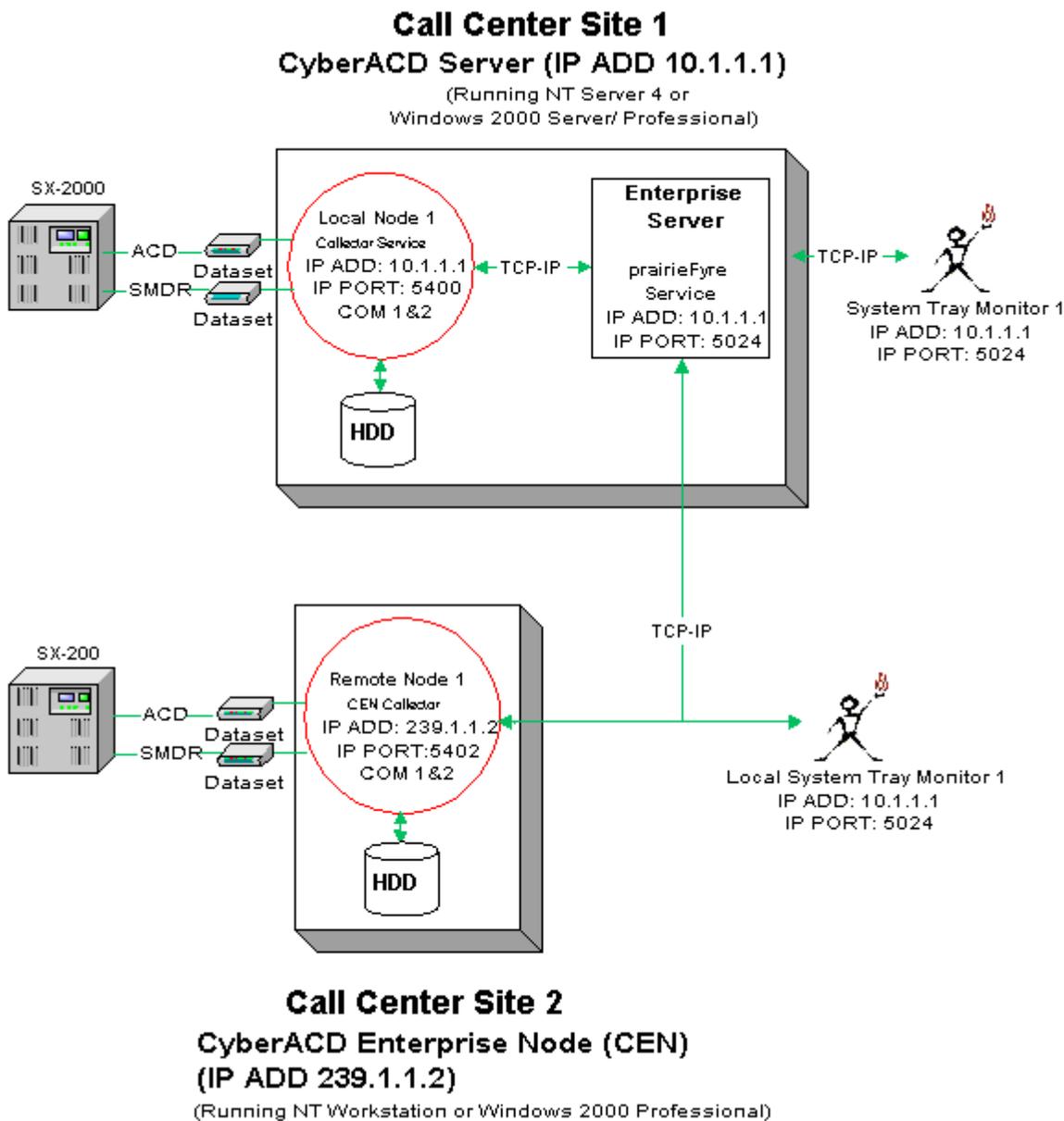
Setting up enterprise services

The following example demonstrates how to set up enterprise services.

The enterprise consists of two call centers and three telephone systems. Site 1 has two telephone systems and Site 2 has one telephone system, as illustrated in Figure 9-7.

Figure 9-7 6110 CCM Enterprise
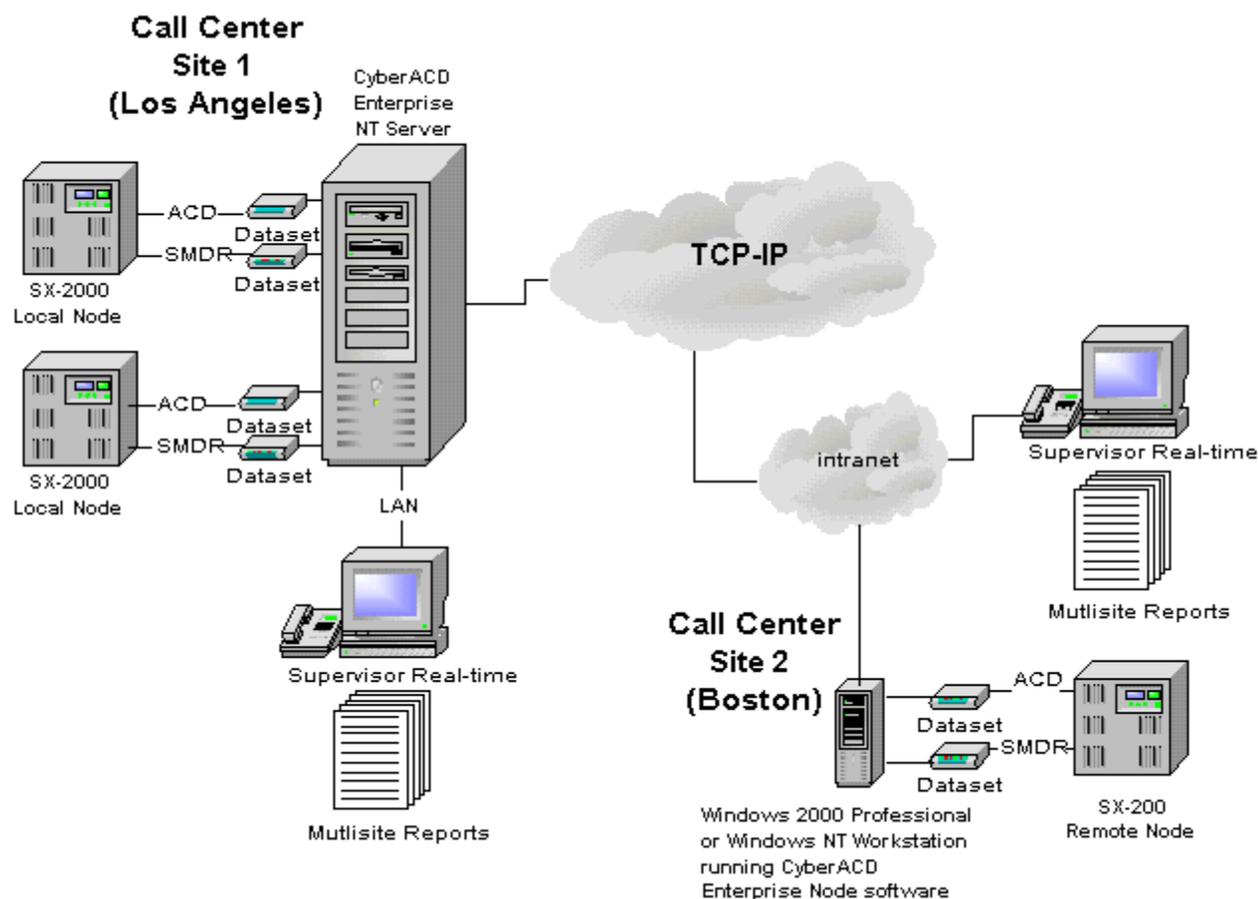
The 6110 CCM Enterprise Server resides at Site 1 in Los Angeles. Two local collectors provide data collection for the two telephone systems at the Los Angeles site. The 6110 CCM Enterprise Server and the local collectors reside on the same computer.

The third telephone system resides at Site 2 in Boston. The Boston node runs remote collector software and NT Workstation or Windows 2000 Professional. It collects and stores data locally on the Boston system.

The 6110 CCM Enterprise Server in Los Angeles collects real-time data from the Boston node and files it to the SQL database and local hard drive. This enables call center managers in Los Angeles to monitor real-time activities and run reports on the site in Boston. During the nightly maintenance routine, the 6110 CCM Enterprise Server synchronizes its data with the Boston database to ensure it has all of the data generated at the remote node for the day.

In order to monitor call center activities and run reports, the supervisors at the Boston site must browse to the 6110 CCM Enterprise Server IP address in I.E. 5. If the Wide Area Network (WAN) link between Los Angeles and Boston goes down, the supervisors in Boston cannot view real-time data on their site until the WAN connection is restored.

Figure 9-8 illustrates data collection at the local and remote nodes.

Figure 9-8 Enterprise services
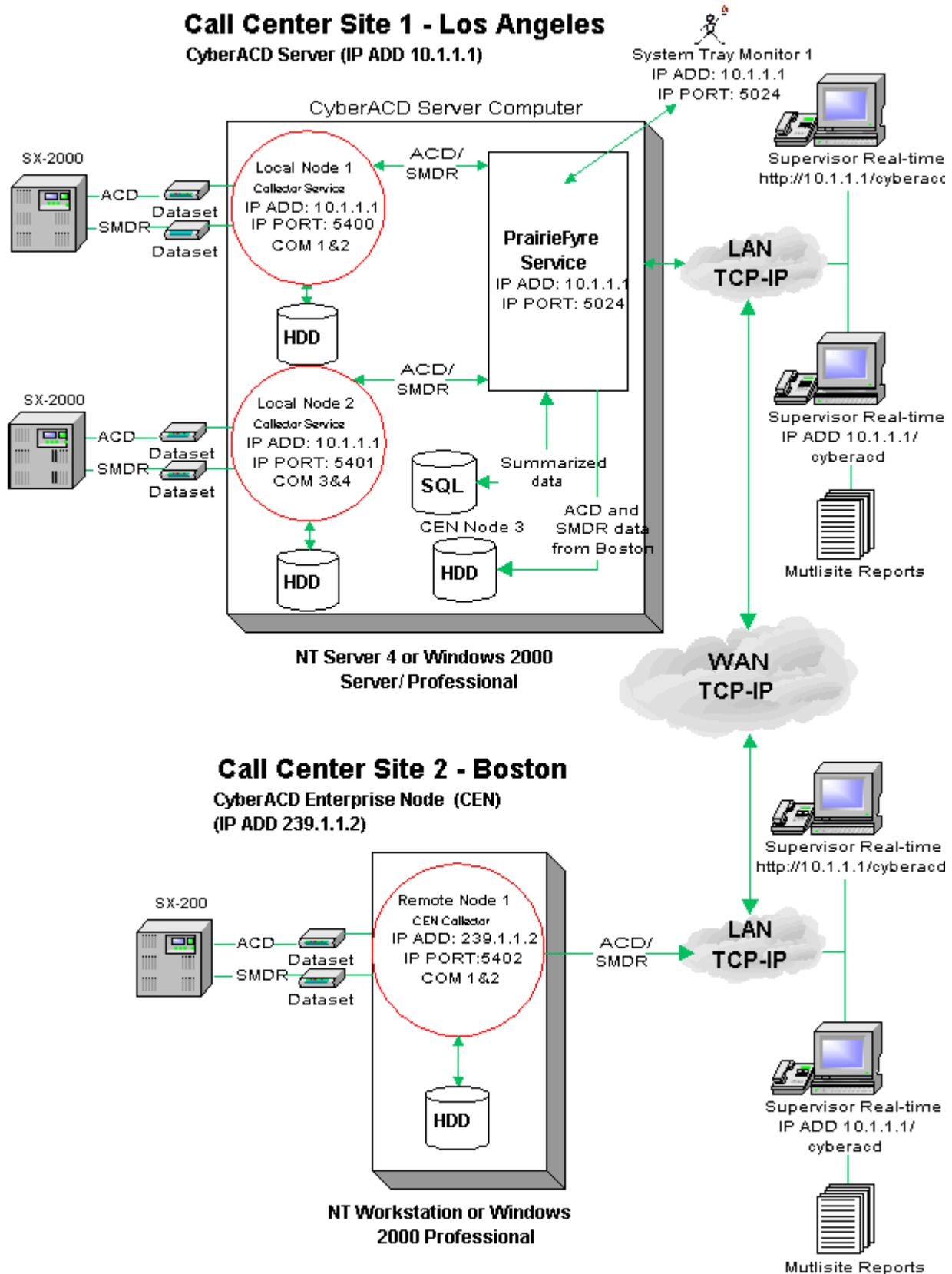
At the Los Angeles site, the manager logs on to the 6110 CCM Enterprise Server and starts the Management Console application. The manager selects the Enterprise tab and configures the IP addresses and IP port numbers for the two local collectors (Node 1 - IP Address: 10.1.1.1, IP Port: 5400, and Node 2 - IP Address: 10.1.1.1, IP Port: 5401), and for the remote (Node 3) CEN (IP Address: 239.1.1.2, IP Port: 5402) in the enterprise.

At the Boston site, the manager logs on to the enterprise node computer and starts the Management Console application. The manager selects the Nodes tab and configures the IP address and IP port number (IP Address: 239.1.1.2, IP Port: 5402) for the Boston node.

NOTE: The managers at the Los Angeles and Boston sites must enter the same IP address and IP port number (IP Address: 239.1.1.2, IP Port: 5402) for the remote node in order for data transfer to occur. The process is described in detail in the following section.

Configuring 6110 CCM enterprise nodes

You configure collection points (collectors) in the Management Console application. There are two versions of Management Console software: Management Console Enterprise and Management Console Node. Call centers that have 6110 CCM Enterprise Server software installed use Management Console Enterprise. Remote call centers that have remote collector software installed (on a computer running NT Workstation or Windows 2000 Professional) use Management Console Node.

In a call center that has 6110 CCM Enterprise Server software installed, you start the Management Console program on the 6110 CCM Enterprise Server only.

Configuring local and remote collectors on the 6110 CCM Enterprise Server (Los Angeles in this example)

To configure the two local collectors on the 6110 CCM Enterprise Server computer:

1. Log on to the Windows NT Server with an account that has administrative privileges.
2. Click **Start**=>**Programs**=>**prairieFyre Software Inc.**=>**prairieFyre Management Console** to start the Management Console (Enterprise) application.
3. Click the **Enterprise** tab.
4. In the left pane, click **Enterprise**.

Figure 9-9 appears. You use the Enterprise tab to configure your nodes.

Figure 9-9 Management Console Enterprise - Enterprise tab
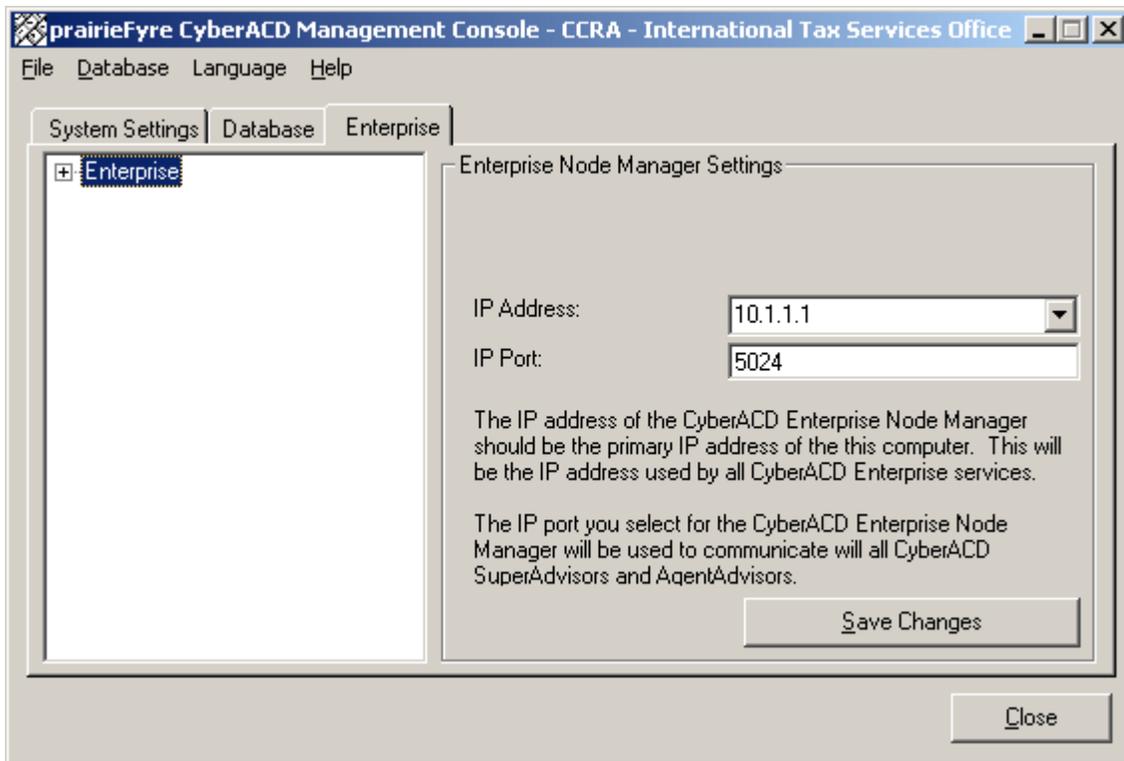
Name

The name box specifies a descriptive (logical) name for the collector.

IP Address

The IP Address box specifies the IP address of the local computer where data collection occurs. This is the 6110 CCM Enterprise Server IP address. During the installation of 6110 CCM, the 6110 CCM setup specifies an IP address and IP port number of the 6110 CCM Enterprise Server.

IP Port

The IP Port box specifies the port number over which the 6110 CCM Enterprise Server communicates all with real-time clients.

> 5. Expand the **Enterprise** tree.

Figure 9-10 appears.

Figure 9-10 Los Angeles local node settings

IP Address

The IP Address box specifies the IP address of the local computer where data collection occurs.

IP Port

The IP Port box specifies the port number over which the 6110 CCM Enterprise Server service communicates with local data collection mechanisms. For remote nodes, both parties must use enter the same port number in order for communication to be successful.

Switch Type

The Switch Type setting specifies the type of telephone system used at the node.

Operates 24 hours a day

The Operates 24 hours a day option ensures proper reporting for call centers that operate over the midnight hour.

Credit Non Answered Outbound Calls

The Credit Non Answered Outbound Calls option includes non-answered outbound calls in the data collected for reporting.

SMDR Comport

The SMDR Comport setting specifies the SMDR comport setting for the local telephone system.

ACD Comport

The ACD Comport setting specifies the ACD comport setting for the local telephone system.

6. Right-click **Local Nodes** and click **Add Local**.
7. For Local Node 1, type a name (Local Node 1).
8. Verify the IP address number (the 6110 CCM Enterprise Server IP address 10.1.1.1).
9. Type a unique IP port number (in this case 5400) over which the collector will talk to the 6110 CCM Enterprise Server service.
10. Select the **Operates 24 hours a day** check box if your call center operates over the midnight hour.
11. Select the **Credit Non Answered Outbound Calls** check box if you want to include non-answered outbound calls in the data collected for reporting.
12. Specify SMDR (com 1) and ACD (com 2) comport settings.
13. Click **Save Changes**.
14. Right-click **Local Nodes** and click **Add Local** to add additional local nodes.
15. For Local Node 2, type a name (Local Node 2).
16. Type an IP address number (the 6110 CCM Enterprise Server IP address 10.1.1.1).
17. Type an IP port number (5401).

NOTE: Ensure the second local IP port number is unique.

18. Select a telephone system type (SX-2000).
19. Optionally select the **Operates 24 hours a day** check box.
20. Optionally select the **Credit Non Answered Outbound Calls** check box.
21. Specify SMDR (com 3) and ACD (com 4) comport settings.
22. Click **Save Changes**.

To configure the remote Boston node on the 6110 CCM Enterprise Server computer:

1. Right-click **Remote Nodes** and click **Add Remote**.
2. For remote Node 1, type a name (Remote Node 1).
3. Type an IP address number (239.1.1.2).
4. Type an IP port number (5402).
5. Select a telephone system type (in this case SX-200 RT).
6. Optionally select the **Operates 24 hours a day** check box .
7. Optionally select the **Credit Non Answered Outbound Calls** check box.
8. Click **Save Changes**.

The configuration is illustrated in Figure 9-11.

Figure 9-11 Los Angeles remote node settings
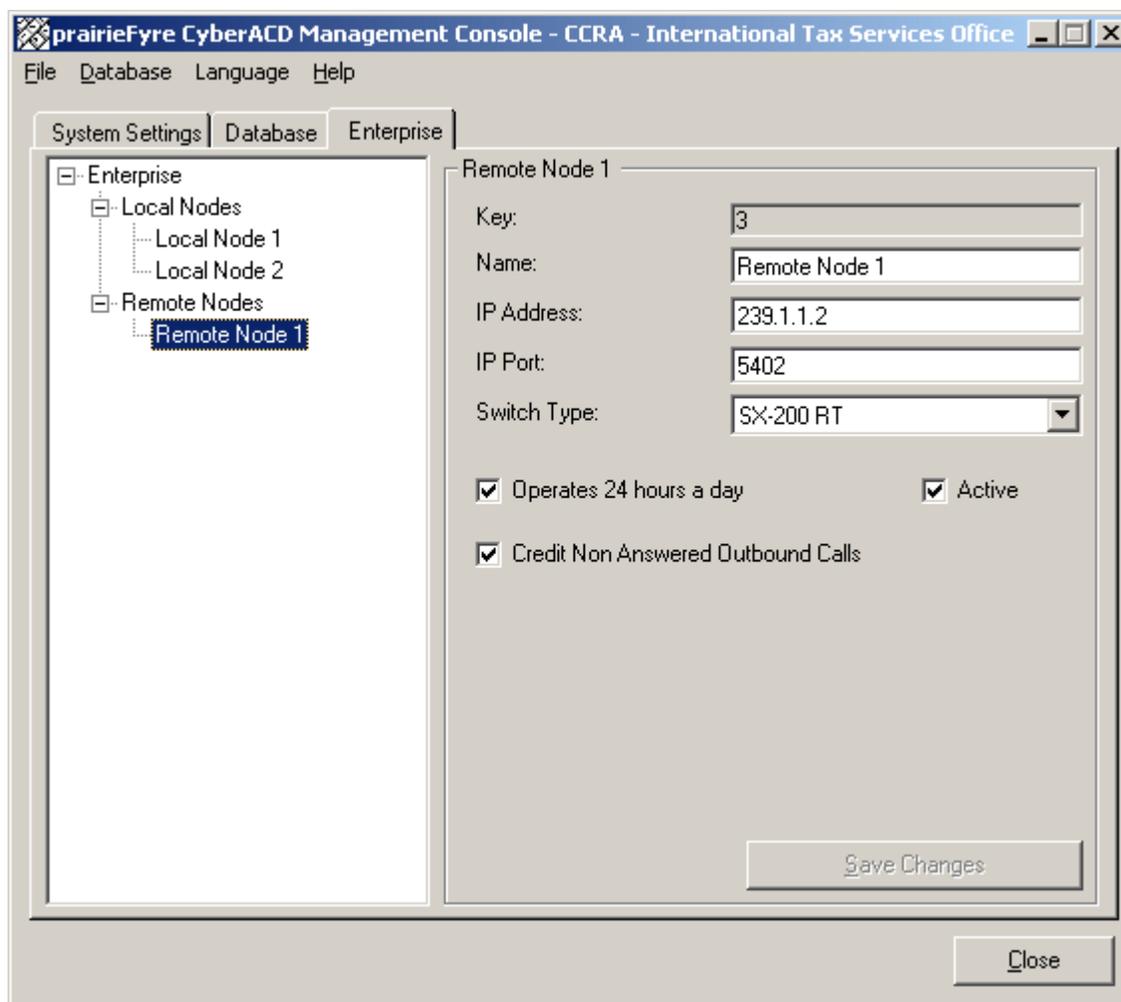
Installing and configuring CEN software

In multi-site call centers that use 6110 CCM, it is necessary to install 6110 CCM Enterprise Node (CEN) software at all remote sites. CEN enables supervisors at remote sites to monitor call center activities in real-time and run reports on their sites *without* having to install 6110 CCM Enterprise Server at the remote site.

To install CEN at a remote site:

1. Start I.E. 5 and browse to the 6110 CCM Enterprise Server by typing **http://[your 6110 CCM Enterprise Server IP address]/6110 CCM/**.
2. Obtain a user's account from your system administrator and log on to the 6110 CCM Enterprise Server.

The 6110 CCM Enterprise Web application appears.

3. Click **Help**=>**Client Download**.
4. Click **6110 CCM Client Download** to install the 6110 CCM client software.
5. Click **6110 CCM Enterprise Node (CEN) Installation** to install the CEN software.

Configuring CEN with Management Console Node

To configure the Boston node:

1. Click **Start**=>**Programs**=>**prairieFyre Software Inc.**=>**Management Console**.
2. Click The **Nodes** tab and expand the **Nodes** tree.
3. Right-click **Local Nodes** and click **Add**.
4. For the (Boston) Local Node 1, type a name (Local Node 1).
5. Type an IP address number (239.1.1.2).
6. Type an IP port number (5402).
7. Select a telephone system type (in this case SX-200 RT).
8. Optionally select the **Operates 24 hours a day** check box .
9. Optionally select the **Credit Non Answered Outbound Calls** check box.
10. Specify SMDR (com 1) and ACD (com 2) comport settings.
11. Click **Save Changes**.

The configuration is illustrated in Figure 9-12.

Figure 9-12 Boston local node settings
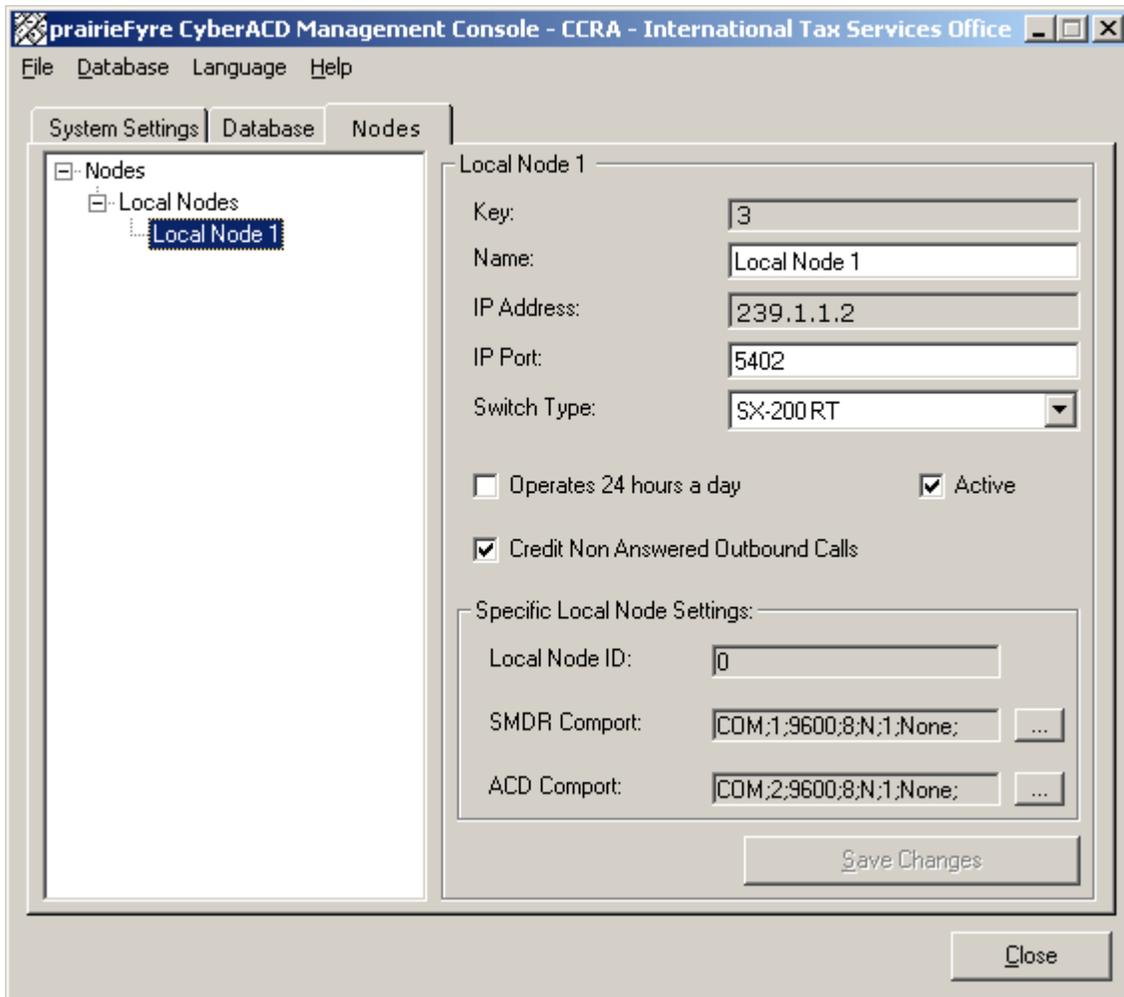
Chapter 10 Network and Collector Monitors
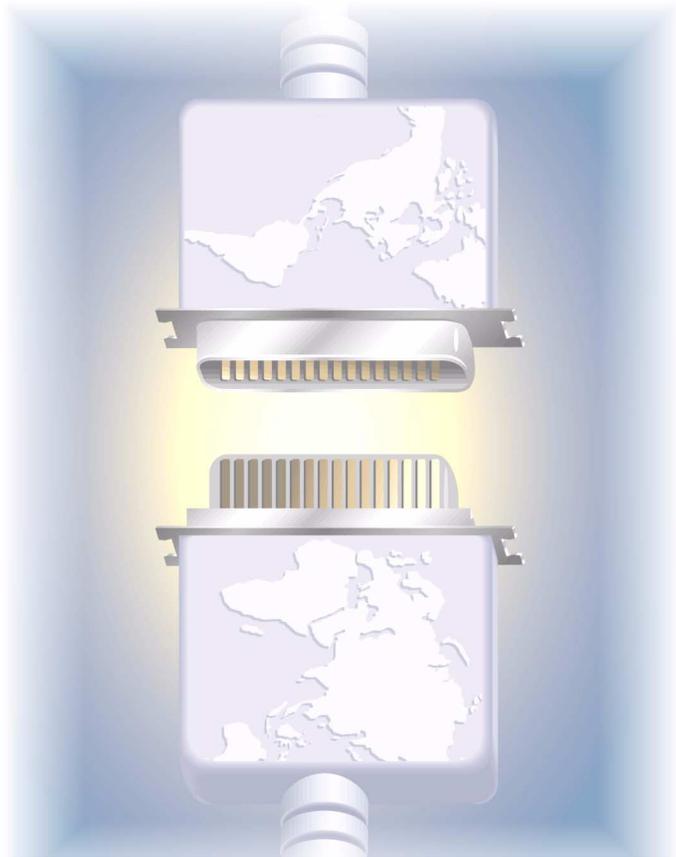
Get connected with the Network Monitor. Collect telephone system data and monitor in real-time. View detailed node information with the Collector Monitor.

6110 CCM Network and Collector Monitors

Network Monitor overview

You use the Network Monitor to
- monitor the 6110 CCM (Contact Center Management) Server
- to verify the Collector Monitor is collecting real-time telephone system node data
- to reset your SMDR and ACD data links

The telephone system generates an enormous amount of real-time and historical data used to manage your call center. You use real-time data to monitor the current call load and agent availability and make minute-to-minute adjustments. You use historical information for forecasting, staffing, and scheduling.

Menu functions

When you right-click the Network Monitor icon on the system tray a menu appears.
It provides the following commands:
- English
- French
- Popup on Alarms
- Node Information
- Exit

When you right-click the Network Monitor (not the icon), you see two additional menu items:
- Connect To
- Client Statistics

If you accidentally disconnect the Collector Monitor from the Collector Service, or the system detects Collector Service errors, the Network Monitor icon turns red and blinks.

Popup on Alarms

The Enable Popup on Alarms command enables pop-up alerts that display system and data alarm information.

Node Information

The Node Information command displays the Network Monitor.

Exit

The Exit command quits the Network Monitor.

Connect To

The Connect To command connects the Network Monitor to a particular collector service (node).

Client Statistics

The Client Statistics command gives the client IP address, the client type, connection information, and error information.

Figure 10-1 describes the connectivity between the prairieFyre Service and connected clients viewing the 6110 CCM real-time programs.

Figure 10-1 Real-time monitors
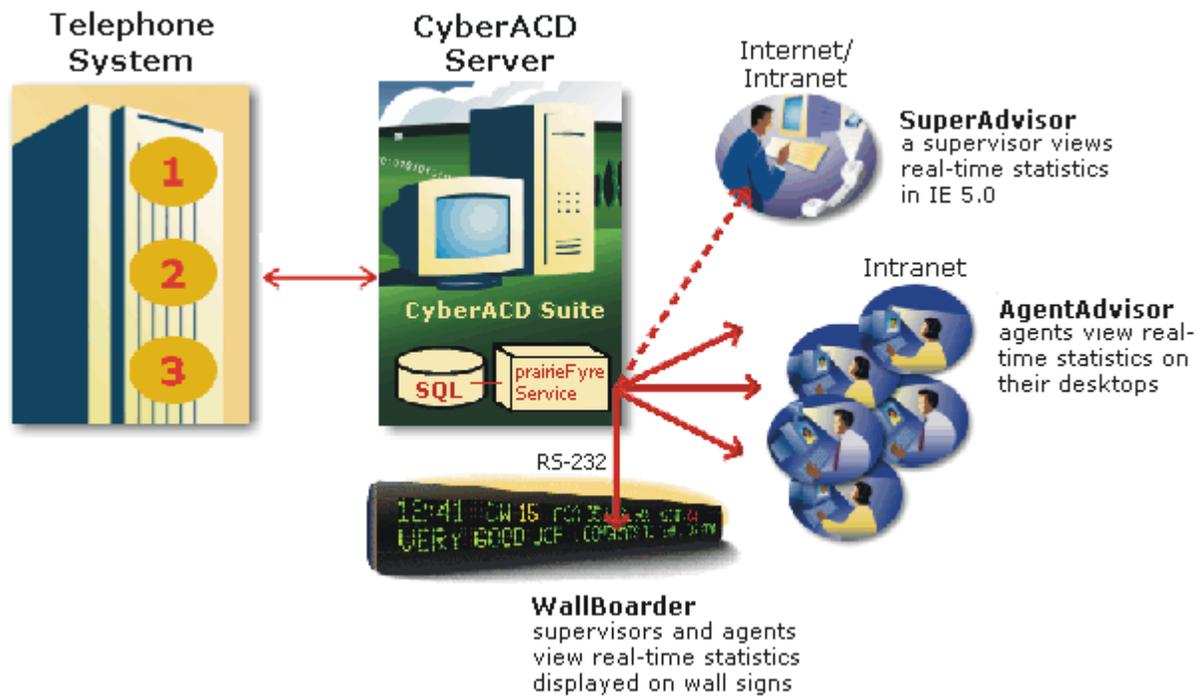
Setting the data alarms in the Management Console

With the Management Console, you can set the days and times during which the data alarms will be activated. For those days and times, the system will notify you if the Collector Service is not receiving data or if the server disk space is low: the back figure in your system tray is marked with a red line and blinks. You can also set the duration from when the data stops streaming to when you want an alarm to appear.

Setting the Data Alarm Schedule

1. Click **Start=>Programs=> Mitel Networks=>Management Console**.
2. Select the **System Setting** tab.
3. Select **Data Alarm Schedule**.
   The Data Alarm Schedule window appears.
4. Select the days and the hours the company is open and will be receiving calls.
5. Click **OK**.
6. Close the Management Console.

Setting the Data Alarm Timeout Minutes

1. Click **Start=>Programs=> Mitel Networks=>Management Console**.
2. Select the **System Setting** tab.
3. Select **Data Alarm Timeout Minutes**.
   The Data Alarm Timeout Minutes window appears.
4. Use the up or down arrows to increase or decrease the duration of the time lapse from when the data stops streaming to when you want an alarm to appear.
5. Close the Management Console.

Starting the Network Monitor

Starting the Network Monitor on the 6110 CCM Enterprise Server:

- Double-click the **6110 CCM Network Monitor** icon (the black figure on the system tray).

If the Network Monitor is not active on the system tray, click Start=>Programs=>Mitel Networks=>Network Monitor to start the monitor.

NOTE: By default, the Network Monitor on the 6110 CCM Enterprise Server points to the default data collection point. The default data collection point is the 6110 CCM Enterprise Server Collector Service.

Starting the Network Monitor on a client computer

1. Click **Help**=>**Client Download**.
2. Click **Network Monitor** to install it.
3. Right-click the **Network Monitor** icon and click **Connect To**.
4. Type the 6110 CCM Enterprise Server IP address and IP port number and click **OK**.
5. Double-click the **Network Monitor** icon.
   Figure 10-2 appears.

Figure 10-2 The Network Monitor
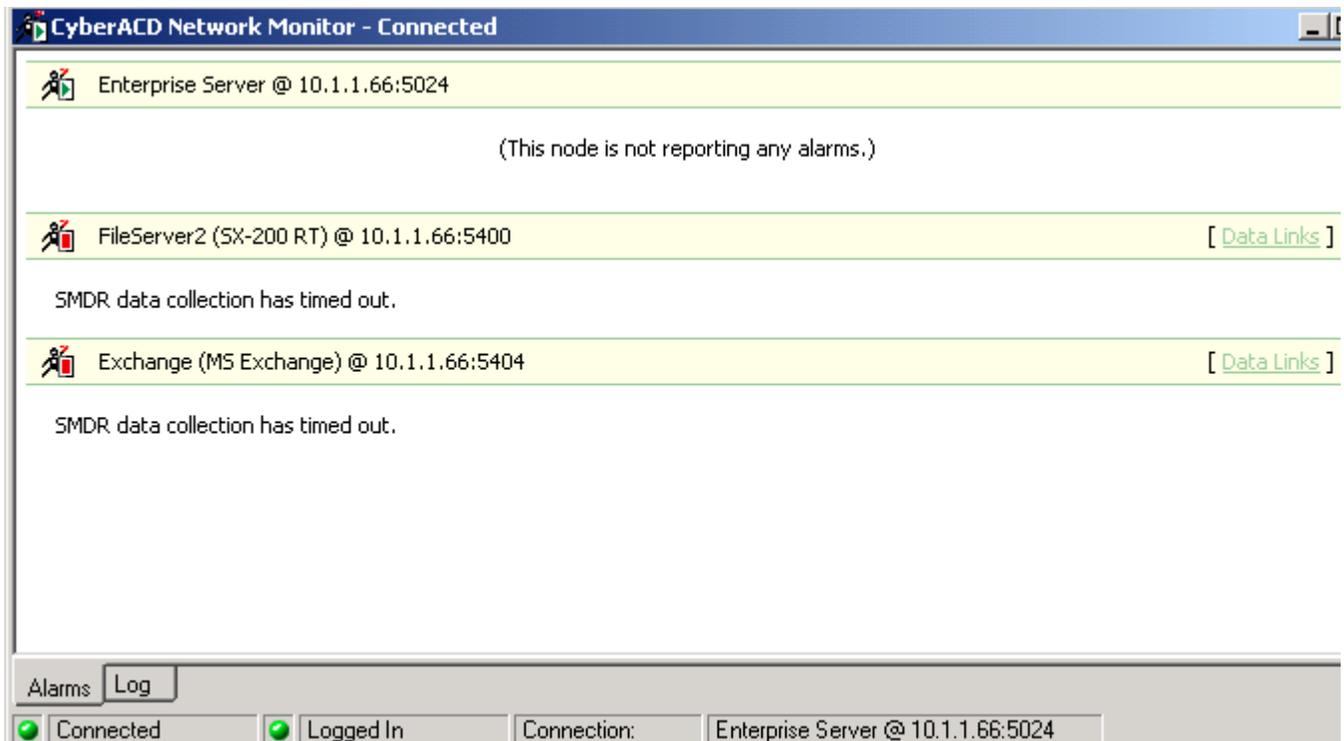
Enabling pop-up alerts

You can enable pop-up alerts that display system and data alarm information.

To enable pop-up alerts:

1. Click **Start=>Programs=>Mitel Networks=>Network Monitor**.
   The Network Monitor (a black figure) appears in the system tray on your desktop. It communicates with the collector to which you are connected.
2. Right-click the **Network Monitor** icon and click **Popup on Alarms**.

If a system or data alarm occurs, the Network Monitor appears on top of all open applications. This message informs you that the Collector Service for the node has been disconnected from the telephone system. You can prevent a message from re-appearing by selecting the Do not show alarm warning again check box.

What to do if data is not streaming

There can be several reasons why data is not streaming. The following resolutions address the most common streaming problems:

- Click **Reset SMDR/ACD Link** on the Collector Monitor main screen to restore the connection.
- Check the cabling connections from the telephone system to the comports.
- Release Collector Service control of the comports and use a hyperterminal session to view the comports.

To view the comports:

1. Quit 6110 CCM.
2. Click **Start=>Programs=>Accessories=>Hyperterminal**.
3. Create a session and verify data is flowing through the comports.
   If data is not flowing through the comports, then either something is wrong with the comports, your cabling is not properly hooked up, or the telephone system is not producing data records.

Re-Initializing the Collector Service

The ReInitialize Collector command reconnects the Collector Monitor application to the Collector Service. If you accidentally disconnect the Collector Monitor from the Collector Service, or the system detects Collector Service errors, the Network Monitor icon turns red and blinks.

To re-initialize the Collector Service:

1. Click **Start=>Programs=>Mitel Networks=>Network Monitor**.
   The Network Monitor (a black figure) appears in the system tray on your desktop. It communicates with the collector to which you are connected.
2. Right-click the **Network Monitor** icon and click **Node Information**.
3. Right-click the **Network Monitor** and click **ReInitialize Server**.
4. Log on with your user name and password and click **OK**.

Collector Monitor overview

The Collector Monitor informs you if/of

- the current time of the Collector Service computer as derived from the telephone system data stream
- the time interval during which the system raises data alarms if it detects the Collector Service is not receiving data
- the number of records received by the Collector Service that were not valid SMDR or ACD records
- the Collector Service is not receiving SMDR or ACD data
- the telephone system is truncating agent IDs and extension numbers that exceed four characters
- the Collector Service attempted to write to the local data drive (when the disk was full) at least once today
- the disk space is low on the disk housing the text files

The Collector Service collects data from the SX-2000 and the SX-200 with real-time over SMDR and ACD, RS-232 ports. It collects data from the SX-200 over an SMDR/Agent Shift, RS-232 port.

For the SX-2000 and the SX-200 with real-time, the Collector Service

- files telephone system data to the local hard drive
- compares the data to the configuration of the YourSite Database and forward relevant files to the SuperAdvisor, AgentAdvisor, and WallBoarder applications in real-time over TCP-IP
- simultaneously files this data set to the Structured Query Language (SQL) database in real-time

For the SX-200, the Collector Service

- files telephone system data to the local hard drive
- compares the data to the configuration of the YourSite Database and forwards relevant files to the Structured Query Language (SQL) database in real-time

SQL is the language used to talk to popular Relational Database Management Systems (RDBMSs). It is a standard query language you can use to enter, query, and change data in a database. You administer the YourSite Database using the Microsoft SQL Server, which is a database management system.

Menu functions

You use the Collector Monitor to view the following:

- Server Started
- This Node's Alarm Status
- SMDR/ACD File Name
- File Write Errors
- Records Today
- Record Last Received
- Server's Current Time
- Clear All Data Alarms
- SMDR Data Stream/ACD Data Stream
- Record Errors
- Reset SMDR Link/Reset ACD Link

Server Started

The Server Started field displays the date and time you started the 6110 CCM Server.

This Node's Alarm Status

The Alarm Status field displays system errors, such as SQL and comport errors. SQL errors occur when the connection to the SQL Server software is down. Comport errors occur when the data flow to the SMDR, ACD, and WallBoard comports is interrupted.

SMDR/ACD File Name

The SMDR/ACD File Name field displays the name of the text file to which the Collector Service writes SMDR/ACD data. You can find the text file on the 6110 CCM Server in \\prairieFyre\6110 CCM\ACD Manager. The file naming convention is *S* (for SMDR) *YYYY*/*MM*/*DD*. The date in the text file name must match the date in the Server's Current Time field.

File Write Errors

The File Write Errors field displays a value for the number of times the Collector Service attempts to write to the 6110 CCM Server data drive (when the disk is full).

Records Today

Under SMDR Data Stream/ACD Data Stream, the Records Today field displays the total number of SMDR/ACD records received for the day.

Record Last Received

Under SMDR Data Stream/ACD Data Stream, the Record Last Received field displays the date and time the Collector Service received the SMDR/ACD record last sent.

Server's Current Time

The Server's Current Time field displays the current date and time set on the 6110 CCM Server.

Clear All Data Alarms

The Clear All Data Alarms button clears any current data alarms.

SMDR Data Stream/ACD Data Stream

The SMDR Data Stream/ACD Data Stream field displays SMDR/ACD records as they arrive from the telephone system.

Record Errors

Under SMDR Data Stream/ACD Data Stream, the Record Errors field displays the number of records received by the Collector Service that were not valid SMDR/ACD records.

Reset SMDR Link/Reset ACD Link

The Reset SMDR Link/Reset ACD Link button resets the SMDR/ACD data link from the telephone system to the Collector Service when the SMDR Data Stream/ACD Data Stream field shows no data is streaming. If you attempt to reset the link and data does not start streaming, check your cabling connections from the telephone system to the comports.

Starting the Collector Monitor

Starting the Collector Monitor from the 6110 CCM Enterprise Server:

- When viewing the **Network Monitor**, click **Data links**.

Starting the Collector Monitor on a client computer

1. Click **Tools=>ACDLink** on the 6110 CCM UI to start the Collector Monitor.

Figure 10-3 The Collector Monitor
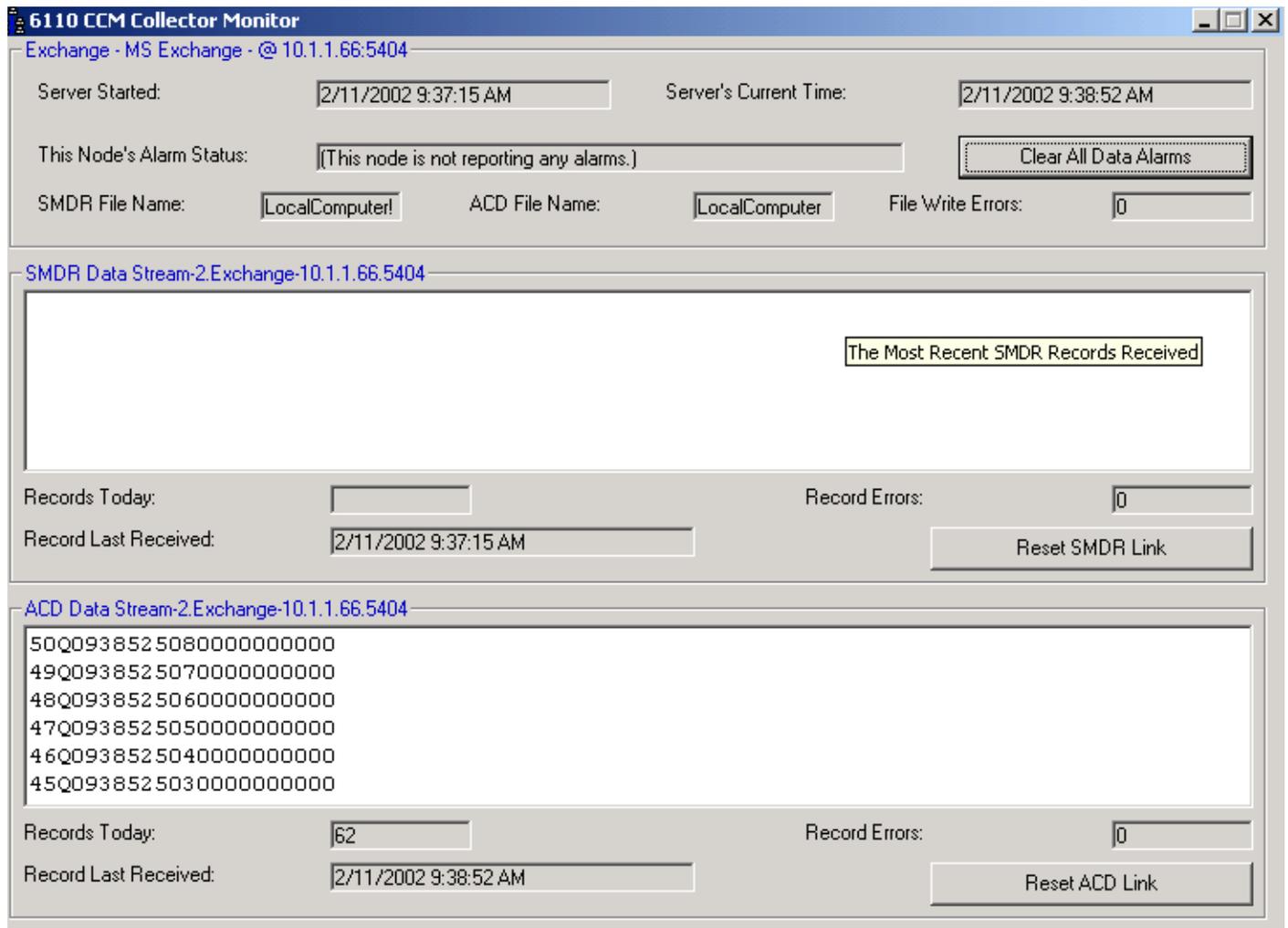
Chapter 11 WallBoarder

Prominently display agent and queue statistics, and need-to-know information with WallBoarder.

WallBoarder

The WallBoarder program displays text messages and call center statistics on one or more Spectrum Light Emitting Diode (LED) reader boards (wall signs). Wall signs provide real-time statistics to agents and supervisors, such as the number of calls in queue, the wait time of the longest waiting caller, and the number of available agents. You can define display characteristics and alarm thresholds for ACD variables.

When a call center has more than one wall sign they are networked together. The first wall sign connected to the 6110 CCM Server is the *master sign*. All other wall signs are *slave signs*. Telephone system statistics update WallBoarder every second.

WallBoarder main screen

When you click RealTime=>WallBoarder Figure 11-1 appears.

Figure 11-1 WallBoarder main screen
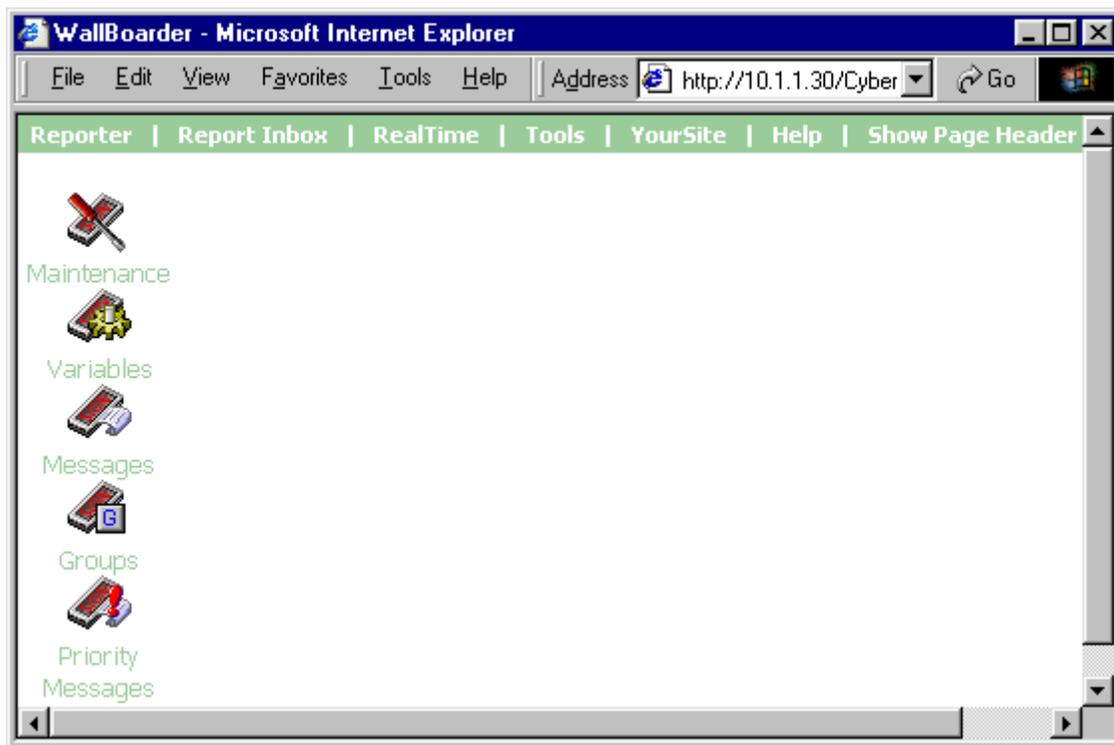
WallBoarder icons

WallBoarder has Maintenance, Variables, Messages, Groups, and Priority Messages components you use to reset the signs, define the appearance of displayed performance variables, program wall sign messages, assign wall sign messages to sign plans, and program priority messaging respectively.

Spectrum wall sign setup

Figure 11-2 illustrates the connectivity between the 6110 CCM Server and the master sign (Wall Sign #1). The 6110 CCM Server connects to the master sign over an RS-232 25-pin cable, an RS-485 converter, and RS-485 RJ-11 cabling. The master sign connects to slave signs over RS-485 cabling.

Figure 11-2 Spectrum setup
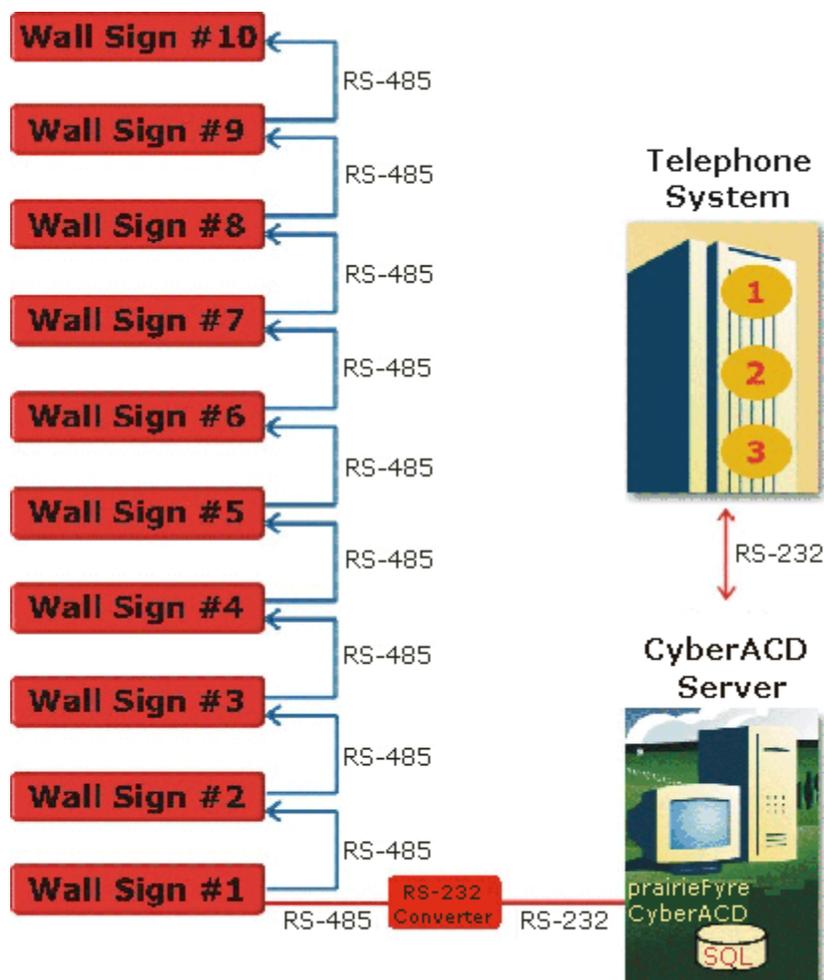
Each wall sign has a unique address. You use a keypad provided with the master sign to set the internal addresses of your signs. The addresses distinguish wall signs for messaging purposes. Use address 00 when you have only one wall sign. When you have more than one wall sign, number the master unit 01.

You set the internal sign addresses with the keypad, and register them in WallBoarder on the Groups screen. WallBoarder uses sign groups to dictate the messages displayed by particular wall signs. Each sign group has a range of sign addresses. For example, you can specify that Sign Group #1 provide real-time displays for wall signs one to five, Sign Group #2 provide real-time displays for wall signs six to 10, and so on.

Specifying wall sign comport settings

NOTE: The default comport settings for newer Spectrum IP/Serial wall signs are 8; None; 1. In the past, the default comport settings were: 7; Even; 2. Please refer to Spectrum documentation to verify the correct default comport settings.

To edit wall sign comport settings:

1. Log on to the Windows NT Server with an account that has administrative privileges.
2. Click **Start**=>**Programs**=>**prairieFyre Software Inc**=>**prairieFyre 6110 CCM Management Console** to start the Management Console program.
3. Click the **System Settings** tab.
4. Double-click **Sign Comport** and enter comport values for the comport that connects the wall sign to the 6110 CCM Server.
5. Click **OK**.

Configuring wall sign messages

To program wall sign messages:

1. Define threshold characteristics for wall sign variables across ACD queue groups.
2. Construct message strings of user-defined text, sign variables, display features, and graphics.
3. Define sign groups that specify the conditions in which real-time information is displayed on one or more wall signs.
4. Optionally program priority messages to provide essential, personal information to agents.

Maintenance screen

If you see question marks [???] instead of statistics on the wall sign, this means the telephone system has not updated 6110 CCM with ACD real-time statistics during the last 90 seconds.

You verify the connectivity of (reset) your walls signs and synchronize them to the 6110 CCM Server computer time on the Maintenance screen illustrated in Figure 11-3.

Figure 11-3 Maintenance screen

The Set Clock command synchronizes the wall sign clocks to the 6110 CCM Server computer time. Synchronize your clocks to ensure scheduled messages are displayed on your wall signs at the correct time.

Resetting wall signs

If WallBoarder is not displaying your sign messages, you can reset your wall sign to test the connection between the master wall sign and the 6110 CCM Server.

To reset and synchronize your wall signs:

1. Click the **Maintenance** Icon.
2. Click **Reset All Signs** to verify your network sign connections.
3. Click **Set Clock** to set all wall sign clocks to the 6110 CCM Server computer date and time.

Variables screen

Table 1-1 lists the pool of ACD performance variables WallBoarder uses to configure wall sign messages.

Table 1-1: WallBoarder ACD variables

ACD Variable	Definition
Calls Waiting in Queue	the current number of callers in queue waiting for available agents, including those listening to silence, music, or recorded announcements
Longest Waiting Caller in Queue	the current duration, in minutes and seconds, of the call waiting the longest in queue
ACD Agent Logged On	the current number of agents logged on to the ACD
Offered Calls Today	the total number of calls offered to the queue for the day All calls received by the ACD queue, regardless of how they are handled or routed, are referred to as the *calls offered*. This includes Calls Answered, Long Interflowed Calls, and Long Abandoned Calls. Calls Requeued, Path Unavailable Calls, Short Abandoned Calls and Short Interflowed Calls are not considered. Telephone system data on the calls offered and average talk time is used by the Erlang C equation in calculating the agents required.
Answered Calls Today	the total number of calls answered by agents for the day
Abandoned Calls Today	the total number of calls abandoned before being answered by agents for the day
Answer Percentage Today	the percentage of calls answered compared to the total number of calls offered to the ACD queue for the day
Service Percentage Today	The *service level* is the total number of calls which are answered, abandoned, and interflowed *before a defined threshold time (Service Level Time)*, compared to the total number of calls answered, abandoned, and interflowed. The service level = (Calls Answered + Long Calls Abandoned + Long Interflow) within the Service Level Time ÷ (Calls Answered + Long Calls Abandoned + Long Interflow).

The service level is comprised of the service level percent and service level time. The service level time is the threshold time used in calculating the service level percent, such as 90 percent of calls answered in 20 seconds.

You define and save display characteristics for sign variables (ACD variables associated with a particular ACD queue) on the Variables screen.

NOTE: A queue must be a member of a queue group defined in the YourSite Database in order for you to select the queue and associate it to an ACD variable in WallBoarder. This is to support real-time and report permissions: you define permissions for database groups.

Figure 11-4 displays the screen used to define sign variables.

Figure 11-4 Variables screen

Consider the programming for Sign Variable #1 in Figure 11-4. The value for the Longest Waiting Caller statistic will be displayed in amber when the longest waiting caller in D1003 has waited less than 20 seconds, in green when the longest waiting caller in D1003 has waited less than 45 seconds, and in red at other times (when the longest waiting caller in D1003 has waited 46 seconds or more).

The Variables screen provides the following functions.

Editing Current Variable

The Editing Current Variable group displays the current (active) sign variable. You select the Enabled check box to define alarm characteristics for the active variable and make it available for WallBoarder to incorporate in message strings.

Variable Type

The Variable Type group associates an ACD variable and ACD queue to the active sign variable.

Variable Is Linked To

The Variable Is Linked To group specifies the queue or queue group associated with the ACD variable currently selected.

Variable Displayed

The Variable Displayed group specifies the number of characters reserved for an ACD variable in the message string. It centers, left-justifies, or right-justifies the ACD variable within the variable string position.

prairieFyre typically recommends you use a variable spacing of one to three character widths. The following example shows a width of three characters for the Calls Waiting in Queue ACD variable. The real-time value is right-justified in the variable string position.

<div align="center">CALLS WAITING = _ 1 0</div>

NOTE: WallBoarder displays the Longest Waiting Caller statistic in hh:mm:ss. Under Variable Displayed, type 8 for the width for the Longest Waiting Caller statistic. Otherwise, the at symbol [@] will appear on the wall sign in place of the Longest Waiting Caller statistic.

Variable Color Triggered to Variable Value

The Variable Color Triggers to Variable list defines color-coded alarms for ACD variable performance thresholds.

Defining sign variables

To define sign variables and associated display characteristics:

1. In the **Editing Current Variable** list, click **Sign Variable #1** and type a name that relates to the variable type and ACD queue(s) you will associate with Sign Variable #1, such as **Long Call Wtg - P1003** or **Agents on ACD - All Paths**.
2. Under **Variable Type**, select an ACD variable and ACD queue to associate to Sign Variable #1.
3. Under **Variable Is Linked To**, select a queue or queue group to associate to the ACD variable currently selected.
4. Under **Variable Displayed**, specify the ACD variable's position on the wall sign and the width of displayed characters.
5. Under **Variable Color Triggered to Variable Value**, define performance thresholds for the active variable (Calls Waiting in Queue).
6. Repeat steps 1 to 6 to define other sign variables and alarm characteristics.
7. Click **Save** to save the programming to the SQL database.

You have defined sign variables. The next step in configuring wall sign messages is to construct a global pool of sign messages.

Messages screen

You compose, test, and save message strings displayed on wall signs on the Messages screen illustrated in Figure 11-5. Message strings indicate to the wall sign how messages are displayed. They are constructed of ACD variables, text, display features, and optionally graphics.

Consider the message strings defined in the following Figure. WallBoarder displays the first message string on the top line [PS02-Top Line] of the wall sign. It displays the Long Call Wtg = component of the message string in red [C001-Red]. The message string flashes [MO03-Flash] across the sign at display speed 2 [MI06-Display Speed 2]. It is comprised of text you type (Long Call Wtg =) and Sign Variable #1 [VA01-Long Call Wtg - D1003], that displays the real-time value for the Longest Waiting Caller ACD variable. The color of the sign variable statistic changes with the wait time of the longest waiting caller, as per the threshold settings defined on the Variables tab.

WallBoarder displays the second message string in red [C001-Red] on the middle line [PS01-Middle Line] of the wall sign.

Figure 11-5 Messages screen
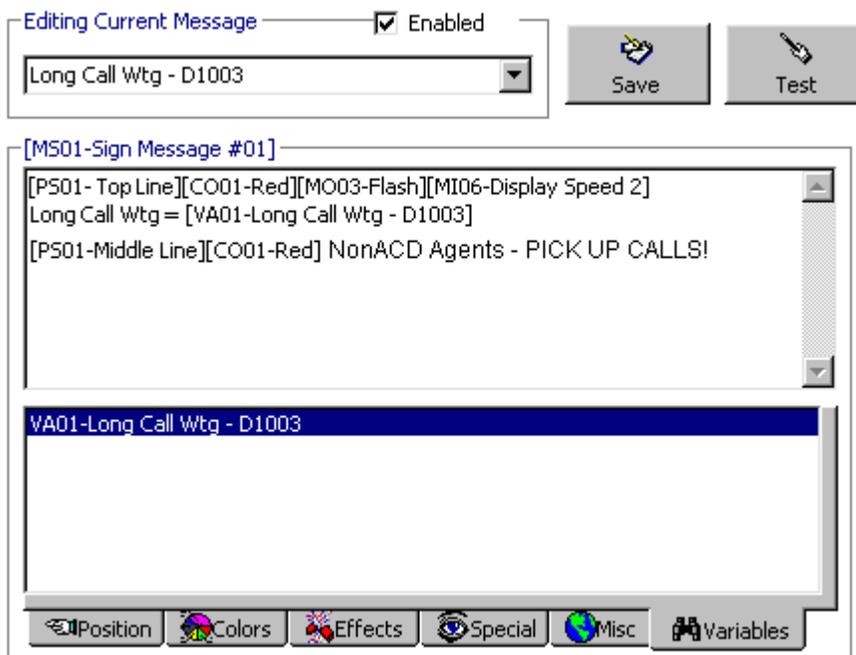
The Messages screen provides the following functions.

Editing Current Message

The Editing Current Message group displays the current (active) sign message. You select the Enabled check box to define display characteristics for the active sign message and make the message available to WallBoarder to incorporate in sign groups.

Position

The Position tab specifies the vertical position of the message string on the wall sign. If you do not specify the text position, the wall sign defaults to the fill mode: the message enters the wall sign from the upper left corner and scrolls to fill up to three rows of text. If you specify the text position, do so before setting other display features.

Colors

The Colors tab specifies the color of text you type in the message string, and the color of any pre-defined text and graphics you select on the Special tab. You can specify different colors for each word in the text string. If you specify text coloring, do so after specifying text positioning, but prior to specifying other display features. Some Spectrum signs offer more color choices than other Spectrum signs. Please refer to the Spectrum product brochure for more information.

Effects

The Effects tab specifies how messages move across wall signs. If you do not specify effects, the wall sign defaults to the Automode option. Automode produces random message display formats, such as message strings that flash or roll to the left.

Special

The Special tab provides display features and illustrations you can add to message strings.

Miscellaneous

The Miscellaneous tab specifies the speed at which WallBoarder displays message strings, the size of message string text, the display time and date, and other features.

Variables

The Variables tab associates ACD variables and ACD queues to sign variables, and specifies display characteristics and color-coded alarm thresholds.

When you incorporate a sign variable, such as Sign Variable #6, in a message string, the real-time value of the associated ACD variable is displayed.

Defining sign messages

To define and test sign messages:

1. In the **Editing Current Message** list, click **Sign Message #01**.
2. Click the **Position** tab and double-click a vertical position type.
3. Click the **Color** tab and double-click a color for the message string.
4. Click the **Effects** tab and double-click an option for moving the message across the wall sign.
5. Click the **Special** tab and double-click one or more additional display features.
6. Click the **Miscellaneous** tab and double-click additional display features.
7. Type a name for the variable, such as **Long Call Waiting =**.
8. Click the **Variables** tab and double-click a sign variable.
9. Click **Test** to test the message display on the wall sign.
10. Press **Enter** and optionally enter a second message string to the wall sign.
11. Repeat steps 1 to 10 to define and test additional wall sign messages.
12. Click **Save** to save the programming to the SQL database.

You have defined a global pool of sign messages. The next step in configuring wall sign messages is to define sign groups and specify the conditions in which sign messages are displayed on one or more wall signs.

Groups screen

You define sign groups on the Groups screen illustrated in Figure 11-6. Sign groups dictate the messages displayed by particular wall signs. Each wall sign has a unique address. Only sign messages addressed to a particular wall sign will reach the wall sign.

Each sign group has a range of sign addresses. For example, you can specify that Sign Group #1 provide real-time displays for wall signs one through five, Sign Group #2 provide real-time displays for wall signs six to 10, and so on.

You can specify up to five statements (conditions) using sign groups. Conditions dictate which message strings WallBoarder displays, and the priority in which WallBoarder displays them. If none of the conditions are satisfied, WallBoarder displays the default message on all wall signs. The default message can be a message congratulating agents, or informing them of an upcoming meeting or other need-to-know information.

Figure 11-6 Groups screen

Consider the sign group programming defined in the preceding Figure. The first condition specifies "If Sign Variable #1 (the Calls Waiting in D1003) exceeds 10 play Sign Message #01." The second condition specifies "If Sign Variable #2 (the Longest Waiting Caller in D1003) exceeds 45 seconds play Sign Message #03. "The third condition specifies "If Sign Variable #3 (the ACD Agents Logged On to D1003) drops below 6 play Sign Message #02."

The Groups screen provides the following functions.

Editing Current Sign Group

The Editing Current Sign group displays the current (active) sign group. You select the Enabled check box to define the conditions in which message strings are displayed, and the priority in which they are displayed for the active sign group.

Select a Node

The Select a Node list specifies the call center site(s) for which you are programming wall sign messages.

Sign Addresses

The First Sign and Last Sign boxes associate the active sign group to a range of wall sign addresses. Each sign group specifies the real-time display characteristics for a unique range of wall signs. For example, if you associate Sign Group 1 to wall signs one through eight, these wall signs display the same set of sign variables and message strings.

If

The If check box provides access to conditional messages. You can specify up to five statements (conditions). Conditions dictate which message strings WallBoarder displays, and the priority in which WallBoarder displays them.

Sign Variable

The Sign Variable list specifies the sign variable to display for the current (active) condition.

Evaluates To

The Evaluates To group specifies the value, above or below which, WallBoarder displays the message string associated with the sign variable for the current condition.

Play Message

The Play Message list specifies the sign message to display for the current (active) condition.

Beep

The Beep check box programs the wall sign to produce an audible beep prior to displaying a message for a satisfied condition.

Default Message to Play If No Variables Have Triggered a Message to Play

The Default Message to Play If No Variables Have Triggered a Message to Play list specifies a default message to display on the wall sign. WallBoarder displays the message during periods when the defined conditions ("If" statements) are not satisfied for the sign group. That is, when the call center is quiet.

Defining sign groups

To define sign groups:

1. In the **Editing Current Sign Group** list, click **Sign Group 1**.
2. In the **Select A Node list**, select a call center site(s).
3. In the **First Sign** and **Last Sign** boxes, type a sign address or a range of sign addresses for Sign Group 1.
4. Select the uppermost If check box to define the first conditional message for Sign Group 1.
5. In the **Sign Variable** list, select a sign variable.
6. In the **Evaluates To** lists, specify the threshold, above or below which, a sign message is displayed.
7. In the **Play Message** list, select a sign message.
8. Select the **Beep** check box if you want an audible alarm to accompany the message.
9. Repeat steps 4 to 8 to define other conditional messages for Sign Group 1.
10. Repeat steps 1 to 8 to define messaging for additional sign groups.
11. Click **Save** to save the programming to the SQL database.

This completes the programing of wall sign messaging for your call center. You can optionally define priority messages that WallBoarder displays at particular time intervals over the day.

Priority Messages screen

You define priority messages on the Priority Messages screen illustrated in Figure 11-7. Priority messages provide agents with essential information. For example, you can program WallBoarder to display a priority message from 6:00 P.M. to 6:15 P.M. each day reminding agents to log off, as illustrated in Figure 11-7.

Figure 11-7 Priority Messages screen

When you select the Enabled check box, WallBoarder displays the current (active) priority message on all wall signs until you manually clear the check box; priority messages override all other sign messages.

You can define up to five priority messages. WallBoarder lists the messages in the Editing Current Priority Message list. Typically, you define a unique display schedule for each message, such as Priority Message #1 runs from 5:00 P.M. to 5:30 P.M. and Priority Message #2 runs from 5:30 P.M. to 6:00 P.M. In the event that two or more schedules overlap, the order in which you list the messages dictates the priority in which WallBoarder displays them.

The following functions are available on the Priority Messages screen.

Editing Current Priority Message

The Editing Current Priority Message group displays the current (active) priority message. You select the Enabled check box to define display characteristics for the active priority message and to enable priority messaging.

Select a Node

The Select a Node list specifies the call center site(s) for which you are programming priority messages.

Message Parameters

The Message Parameters group specifies the time interval during which the wall sign displays the current (active) priority message. You can optionally program the time interval to cross midnight. The Beep check box provides an audible alarm that accompanies the priority message displayed.

Position

The Position tab specifies the vertical position of the message string on the wall sign. If you do not specify text position, the wall sign defaults to the fill mode: the message enters the wall sign from the upper left corner and scrolls to fill up to three rows of text. If you specify text positioning, do so before setting other display features.

Colors

The Colors tab specifies the color of text you type in the message string, and the color of any pre-defined text and graphics you select on the Special tab. You can specify different colors for each word in the text string. If you specify text coloring, do so after specifying text positioning, but prior to specifying other display features. Some Spectrum signs offer more color choices than other Spectrum signs. Please refer to the Spectrum product brochure for more information.

Effects

The Effects tab specifies how messages move across wall signs. If you do not specify effects, the wall sign defaults to the Automode option. Automode produces random message display formats, such as message strings that flash or roll to the left.

Special

The Special tab provides display features and illustrations you can add to message strings.

Miscellaneous

The Miscellaneous tab specifies the speed in which WallBoarder displays message strings, the size of message string text, the display time and date, and other features.

Defining priority messages

To define and test priority messages:

1. In the **Editing Current Priority Message** list, click **Priority Message #1**.
2. In the **Select A Node list**, select a call center site(s).
3. In the **Message Parameters** lists, specify the time interval WallBoarder will display the priority message.
4. Select the **Beep** check box if you want an audible alarm to accompany the message.
5. Click the **Position** tab and double-click a vertical position type.
6. Click the **Color** tab and double-click a color for the message string.
7. Click the **Effects** tab and double-click an option for moving the message across the wall sign.
8. Click the **Special** tab and double-click one or more additional display features.
9. Click the **Miscellaneous** tab and double-click additional display features.
10. Type a message.
11. Click **Test** to test the priority message on the wall sign.
12. Press **Enter** and optionally enter a second message string to display on the wall sign.
13. Repeat steps 1 to 12 to define and test additional priority messages.
14. Click **Save** to save the programming to the SQL database.

Chapter 12 4Sight Reports

Calculate the agent requirement and perform "what-if" scenarios to determine acceptable levels of service for you and your callers.

4Sight

Effective call center management involves having the right resources in place at the right times to handle an accurately forecasted work load at the desired level of service. Finding the right balance between resources and traffic volumes is critical. 4Sight accurately predicts your resource requirements.

The task of estimating resource requirements is particularly challenging as the number of calls and the total duration of calls expected for a given time interval is difficult to predict. Forecasting involves taking a year (or preferably two or three years) of historical data generated by your telephone system and using that information to predict future traffic volumes and patterns.

Forecasting involves examining trends in call load patterns, breaking the information down into monthly, weekly, daily, half-hour, and 15-minute intervals that reflect call load patterns, and determining the handling times of the calls. You then modify the forecast based on current call center activities and other considerations, such as absenteeism, agent breaks, holidays, and training.

The accuracy of your forecast increases markedly with the size of your data sample. For example, the call load estimate derived from data on 30 agents who receive 950 calls, will be more accurate than the call load estimate derived from data on 10 agents who receive 280 calls during the same period. Extraneous values for talk time, and temporary changes in agent availability become less significant as the data sample increases in size.

The importance of accurate forecasting can not be overstated. Forecasting is the basis for estimating required resources, such as agents, trunks, and workstations, and impacts call center operations and performance in the following ways:
- The number of blocked and abandoned calls
- The level of service provided to callers and the callers' perception of service
- Agent work load, call behavior, and retention
- The accuracy and usefulness of schedules
- The success of periodic sales campaigns

Conducting a forecast involves accurately estimating the three components of call load: talk time, wrap up time, and call volume. You can apply the Erlang C equation to the estimated call load and average talk time and predict the agent requirement for your service level percentage and service level time targets.

Call centers use the Erlang C equation for agent and delay calculations where ACD queueing is involved. An Erlang measures telephone traffic, or the flow of calls and call attempts to your call center during a given period of time. One Erlang equals one hour or 60 x 60 = 3,600 seconds of telephone conversation. Erlang C predicts the resources required to keep wait (delay) times within your service level objective. The delay time is based on three variables: the number of agents, the number of waiting callers, and the average time it takes to handle each call.

The Erlang C formula uses your historical call load data, and the service level percentage, service level time, and wrap up time you specify and predicts the agent requirement for the time interval and date range in the forecast. Although Erlang C has its limitations, it is the preferred planning tool as it provides reasonable traffic estimates for call centers that maintain good service—minimal blocking and few abandons.

4Sight main screen

You can generate run-on-demand or scheduled forecast reports. When you click Reporting=>4Sight Figure 12-1 appears. This is the screen you use to select report parameters for a run-on-demand 4Sight Report.

Figure 12-1 4Sight main screen

4Sight provides the following report options.

Report Type

The Report Type list specifies the type of forecast report you produce: 4Sight Forecast (queue) or 4Sight Group Forecast (queue group).

Queue

The Queue list specifies queues and queue groups you can use as a basis for the forecast.

Start Date/End Date

The Start Date and End Date lists specify the range of historical dates you use in the forecast. You can pick any calendar date as the start date, and any date later in the calendar year as the end date.

Start Hour/End Hour

The Start Hour and End Hour lists specify the hours of the day included in the forecast.

Interval

The Interval list specifies the report period: by 15, 30, or 60 minutes.

Output Language

The Output Language list specifies the language used in the report tables and charts: English or French.

Automatic Client Mailing

Under Automatic Client Mailing, the Enable check box e-mails the report spreadsheets and associated graphs to an e-mail address you specify.

Automatic Client Printing

The Automatic Client Printing check boxes print the report spreadsheet and associated graph.

Forecast parameters

4Sight uses the following parameters in calculating the agents required.

Call load

The term *call load* refers to the combined effect of the number of calls received by the ACD queue and their duration, or the *calls offered x (average talk time + average wrap up time)*.

Calls Offered

All calls received by the ACD queue, regardless of how they are handled or routed, are referred to as the *calls offered*. This includes Calls Answered, Long Interflowed Calls, and Long Abandoned Calls. Calls Requeued, Path Unavailable Calls, Short Abandoned Calls and Short Interflowed Calls are not considered. Telephone system data on the calls offered and average talk time is used by the Erlang C equation in calculating the agents required.

Average talk time

The *talk time* is the time the caller is connected to an agent. The *average talk time* is the average time the agent spends talking to callers during a given time interval; it is the total average call duration plus any wrap up time you add.

Service Level

The *service level* is the total number of calls which are answered, abandoned, and interflowed *before a defined threshold time (Service Level Time)*, compared to the total number of calls answered, abandoned, and interflowed. It's the average length of time a caller who has obtained a trunk waits for an available agent. The service level = (Calls Answered + Long Calls Abandoned + Long Interflow) within the Service Level Time ÷ (Calls Answered + Long Calls Abandoned + Long Interflow).

Service Level Percent

The *service level percent* is the proportion of calls, expressed as a percentage, which are answered, abandoned, and interflowed within a defined threshold time compared to the total number of calls answered or abandoned (after the short abandon time).

Service Level Time

The *service level time* is the threshold time used in calculating the service level percentage, such as 90 percent of calls answered in 20 seconds. The service level percentage and service level time are parameters you define as your service objective.

Wrap up time

The *wrap up time* is the time an agent spends completing transactions associated with a call after the agent hangs up. The wrap up time is a standardized period. If an agent requires additional time to complete paperwork or online transactions, the agent can remove him or herself from the ACD queue temporarily for this purpose.

Generating forecast reports

The Erlang C formula uses your historical call load data, service level percentage, service level time, and wrap up time and predicts the agent requirement for the time interval and date range in the forecast. The Start Date and End Date lists specify the range of historical dates used in the forecast. The resultant spreadsheet displays the call load and agents required across time intervals.

You can generate run-on-demand or scheduled forecast reports. Before you generate any reports, ensure you select Help=>Client Download and download the 6110 CCM Excel report templates from the Client Download page to your computer.

NOTE: You can generate multiple queue reports simultaneously by selecting more than one queue in the Queue list and clicking Submit.

NOTE: Each time you run a report, Reporter retains the Start Hour, End Hour, and Interval report parameters last selected.

If you intend to e-mail the forecast report to one or more recipients you must add the recipients to a mailing list and associate the recipients to a group.

To set up groups for e-mailing reports:

1. Click **My Options**=>**Contacts**.
2. On the **Contacts** tab, click **Add**.
3. Type the fist name, last name, and e-mail address of the person to which you want to e-mail the report and click **OK**.
4. Optionally add additional e-mail recipients to the contacts list.
5. Click **Groups**.
6. Click **Add** and type a name and description for the contract group, and click **OK**.
7. On the **Groups** tab, double-click the group, add members to the group, and click **Save**.

To generate a run-on-demand forecast report:

1. Click **Reporting**=>**4Sight**.
2. In the **Report Type** list, click a report type.
3. In the **Queue** list, select a device.

The Start Date and End Date specify the date range for the historical data you use in the forecast.

4. In the **Start Date** and **End Date** lists, click a start date and end date for the report.
5. In the **Start Hour** and **End Hour** lists, click a start hour and end hour for the report.
6. In the **Output Language** list, select **English** or **French**.
7. In the **Interval** list, select the forecast interval (by 15, 30, or 60 minutes).
8. Under **Automatic Client Printing Options**, select printing options.
9. Under **Automatic Client Mailing Options**, select the **Enable** check box and select an e-mail address.
10. Click **Submit**.

Figure 12-2 appears.

Figure 12-2 Report confirmation

The Report Writer queries the SQL database for report data and saves the data on the 6110 CCM Server.

4Sight uses service level percentage (80%), service level time (20 sec), and wrap up time (15 sec) values in calculating the agents required. You can change these values in the resultant spreadsheet and recalculate the agents required.

Viewing forecast reports

NOTE: 6110 CCM permissions are based on database teams and groups. In programming the YourSite Database, you must create agent IDs and associate the agents to employees and to agent groups. You must associate the agent groups to the queues for which they answer calls. You must associate the employees to employee groups and the queues to queue groups. You must create these associations in the database in order to view real-time data and report on these devices. If you are reporting on extensions, trunks, DNIS numbers, and account codes, you must add these devices to the YourSite Database and associate the extensions to extension groups, trunks to trunk groups, and DNIS numbers to DNIS groups.

Report Inbox includes Today's Reports, Yesterday's Reports, All of Your Reports, and Inbox Manager links.

Today's Reports displays all of the reports generated today under your user name. Yesterday's Reports displays all of the reports generated yesterday under your user name. All of Your Reports displays all of the reports generated under your user name over the last 30 days. It provides links to run-on-demand, run-from-schedule, and all reports, by date. Inbox Manager deletes reports from your inbox by date range.

To view the 4Sight report and corresponding graphs:

1. Click **View Report Inbox** (upon submitting a report) or click **Report Inbox**=>**Today**.

When you click View Report Inbox Figure 12-3 appears.

Figure 12-3 Report Inbox main screen

Your report inbox displays all reports generated under your user name.

2. Select the **Automatically Update Report Status Field** check box to have the Web page automatically updated every 10 seconds.
3. Click the expansion box adjacent to a forecast report to view report status details.

Figure 12-4 appears.

Figure 12-4 Report status

Report Inbox provides the following options.

Report Type

The Report Type field lists the forecast report name.

Device

The Device field lists the reporting number for the device you are reporting on.

Status

The Status field confirms if your report is ready. When *Complete* appears in the status field the report is waiting in your Report Inbox. When *Pending* appears, the report is not ready. *No Data* means no records were available for the parameters you specified. *Failed* means the report did not generate. If a report fails, the Report Writer logs errors in the NT event log. Clicking *Re-Submit* regenerates the report.

View

The View command displays reports generated in Microsoft Excel.

Delete

The Delete command deletes reports from your report inbox.

Print Status

The Print Status field confirms if the Report Distributor program has printed a copy of the report. Field entries include *Sent to Client*, *Pending*, and *Failed*. *Sent to Client* means the Report Distributor received instructions to process the print job. *Pending* means the Report Distributor has not requested the job yet, or is not currently running on your computer.

Print Charts

The Print Charts field confirms whether or not charts will be printed.

Print Action

Under Print Action, the *Re-Submit* command resubmits the report for printing.

Mail To

The Mail To field lists the e-mail address of the person to which you sent the report.

Mail Status

The Mail Status field confirms if the Report Distributor program has mailed a copy of the report. Field entries include *Sent to Client*, *Pending*, and *Failed*. *Sent to Client* means the Report Distributor received instructions to process the e-mail. *Pending* means the Report Distributor has not requested the job yet, it is not currently running on your computer, or there was a problem in distributing the e-mail.

Associated Schedule

The Associated Schedule field specifies the associated schedule for scheduled reports.

Output Language

The Output Language list specifies the language used in the report tables and charts: English or French.

4. Click the **View** entry associated with a forecast report to open the report.

When you click View, the client-side Report Writer (Web page) retrieves the data files from the 6110 CCM Server and re-creates the data set on your computer. It starts Excel and displays the forecast report spreadsheet and graphs. If you click View to open a second report, Report Writer displays it in the same Excel session.

You can graph other results by highlighting one or more columns of data in the spreadsheet and using the Excel Chart Wizard. You can also use the Excel chart wizard to change the grid style.

While the report is open on your computer, you can save it to your local disc drive and e-mail it to others, or place it on a shared network drive for others to access.

If you e-mail reports to other users, the users must have Excel installed on their computers to view the reports.

Performing what-if scenarios

After you run a forecast, you can perform "what-if" scenarios on the resultant data by changing the value of parameters displayed in the Excel spreadsheet and clicking 6110 CCM=>Recalculate to recalculate the results.

You can enter values for the calls offered, average talk time, wrap up time, and service level percentage and time and recalculate the number of agents required. For example, you can reduce the average talk time and recalculate the agents required across 15-minute time intervals for the shift.

What to do if data is missing from the reports

NOTE: 6110 CCM permissions are based on database teams and groups. In programming the YourSite Database, you must create agent IDs and associate the agents to employees and to agent groups. You must associate the agent groups to the queues for which they answer calls. You must associate the employees to employee groups and the queues to queue groups. You must create these associations in the database in order to view real-time data and report on these devices. If you are reporting on extensions, trunks, DNIS numbers, and account codes, you must add these devices to the YourSite Database and associate the extensions to extension groups, trunks to trunk groups, and DNIS numbers to DNIS groups.

If you run a report and notice that the data for a particular device is missing from the report output, verify the device is programmed in the telephone system and in the YourSite Configuration Database. If you determine the device is missing from the database, add it to the database and use the Summarize Data command (on Management Console program) to update the prairieFyre Service and the SQL database with the complete telephone system data (stored on the local hard drive). You can then produce reports on the device.

Deleting reports

You can delete reports individually in Report Inbox or simultaneously in the Inbox Manager program. To delete all reports submitted on a given date:

1. Click **Report Inbox**=>**Inbox Manager**.

Figure 12-5 appears.

Figure 12-5 Inbox Manager main screen
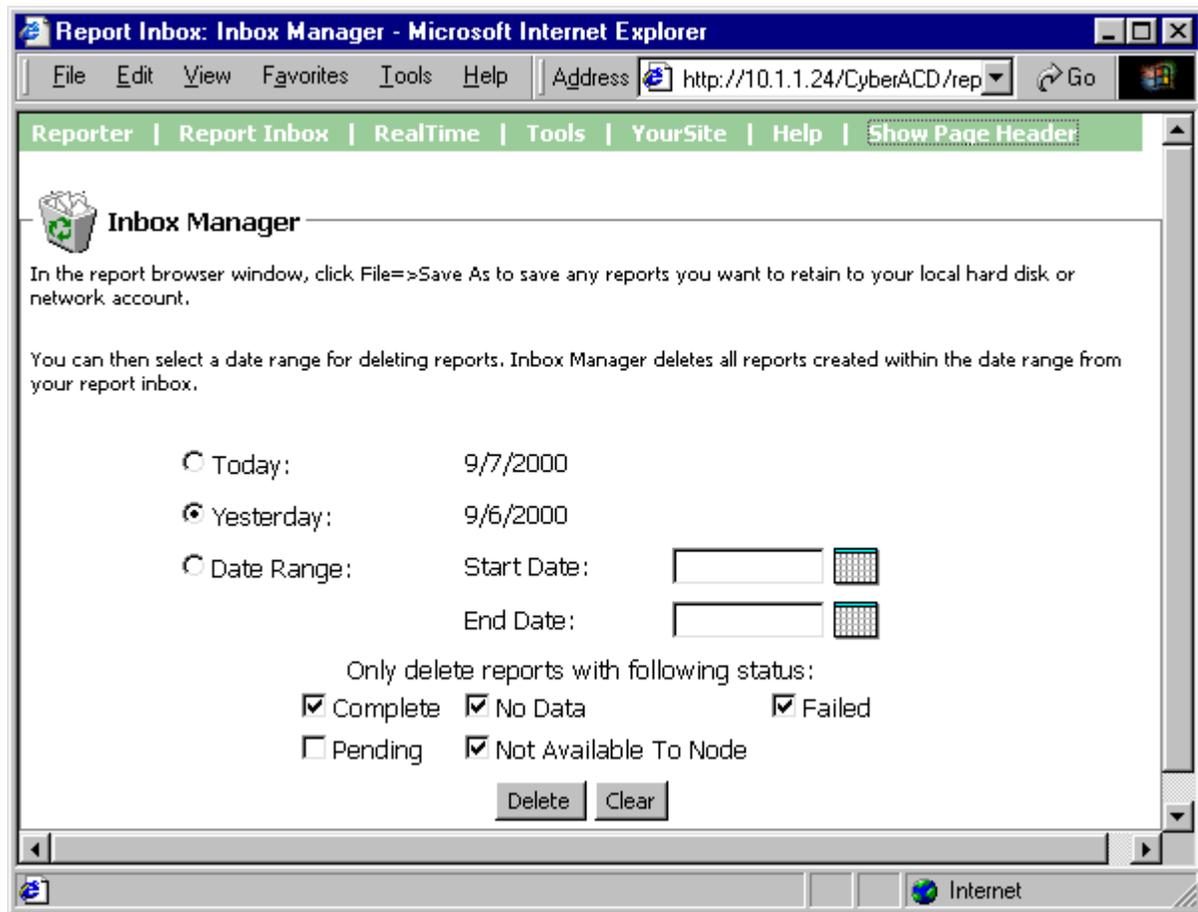
2. Select a date range for deleting reports.
3. Click **Delete**.

Inbox Manager deletes *all* reports submitted on the date(s) in question.

Deleting Scheduled Reports

Inbox Manager does not delete reports you schedule to run in the future. For example, suppose you submit a schedule on Monday, October 18, 1999 for a report generated each Tuesday at 18:45 hours. If you open Inbox Manager on the morning of Tuesday October 19, 1999 and delete all reports submitted on Monday, October 18, the report scheduled for 18:45 hours on Tuesday will run and appear in your Report Inbox.

NOTE: Report Writer deletes all reports that are 30 days or older from your report inbox. For run-on-demand reports, the request date governs the reports age. For scheduled reports, the date the system generates the report governs the reports age. You save any reports you want to retain beyond 30 days to your hard drive or network home directory.

licence violations

NOTE: An employee is a physical person being tracked in your call center. Employees can have multiple agent IDs. The number of employees you program in the YourSite Database must be consistent with your software licence. If you have more employees programmed than your licence permits, "[licence Is In Violation of Max Agents Allowed]" will appear in place of your company name on the 6110 CCM user interface (UI) and on any reports you generate.

Report Distributor

The Report Distributor application prints and e-mails your reports and displays the status of your printing and mailing jobs. It runs in the system tray on your computer and must be running at all times in order to print and e-mail reports automatically.

You must have a mail client installed in order for Report Distributor to e-mail reports. In addition, you must inform Report Distributor of the address of the STMP mail server over which you will relay e-mails, and you must enter a *valid* e-mail address.

To configure Report Distributor to e-mail reports:

   1. On your system tray, right-click the **Report Distributor** icon and click **Mail Configuration**.

Figure 12-6 Mail configuration appears.

Figure 12-6 Mail configuration

   2. Under **SMTP server address**, type your mail server address.
   3. Under **Mail address to use in from field**, type your e-mail address.

At one-minute intervals, Report Distributor seeks print and e-mail jobs and attempts to process the first 10 jobs in order of request date. The sort order is run-on-demand reports, scheduled reports, and then age.

NOTE: Report Distributor runs under the identity of the logged on user and prints to the default printer as defined by the logged on user. A user who logs on but does not have a default printer setup, or does not have adequate permissions to use the default printer causes Report Distributor to fail each print job that it attempts to action.

To enable the automatic printing of reports and e-mails:

1. On your system tray, right-click the **Report Distributor** icon and click **6110 CCM Sites**.

If the Report Distributor icon is not displayed on the system tray, click Start=>prairieFyre Software Inc.=>6110 CCM Report Distributor to start Report Distributor.

Figure 12-7 appears.

Figure 12-7 6110 CCM sites
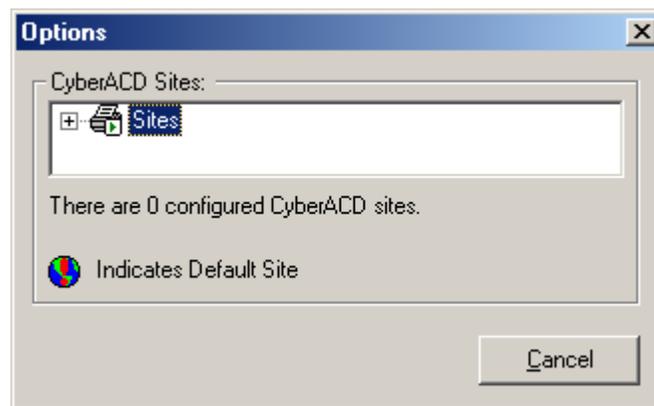
Report Distributor needs to know which 6110 CCM Server to query for historical data.

2. Right-click **Sites** and click **Add**.

Figure 12-8 appears.

Figure 12-8 Site properties

3. Type a descriptive name.
4. Enter a valid 6110 CCM URL, user name, and password, and click **OK**.
5. Optionally repeat steps 2 to 4 to add a second URL.
6. Right-click a site, click **Set Default** to specify the site as default target server address for Report Distributor, and click **Close**.

To view the default 6110 CCM Server address and the status of a report distributed by Report Distributor:

1. Right-click the Report Distributor icon and click **Restore**.

Figure 12-9 appears.

Figure 12-9 Status messages
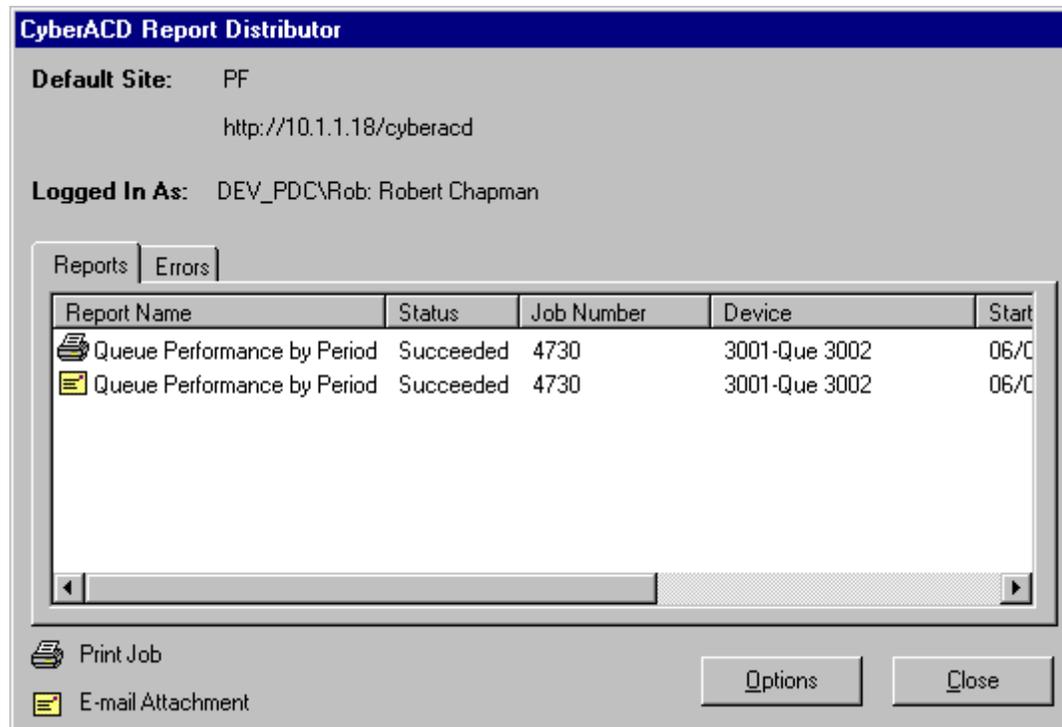
Figure 12-9 displays the default 6110 CCM Server address and the status of a report printed and e-mailed by Report Distributor.

The Errors tab provides details on failed print or e-mail jobs. When the error box is full, it clears itself and displays a message with the date and time it was cleared.

6120 CCS

Mitel Networks 6120 Contact Center Scheduling is an add-on program that works in conjunction with 4Sight to match your staffing levels to your business needs. 4Sight exports forecast data on the agents required to WorkFORCE, and WorkFORCE automatically schedules agents to optimize coverage and labor costs. The following overview explains how to export, forecast, and schedule agents.

1. Start the WorkFORCE program.
2. On the **People** window, enter department names, schedule names, job titles, and employees.
3. Quit WorkFORCE.
4. Start the 4Sight program over the Web and generate a forecast for a given queue or queue group.
5. Click the **View Report Inbox** icon and click **View** to see the forecast results.
6. Click the **6110 CCM**=>**pFAdaptiv Export** Excel menu item and export the forecast data to WorkFORCE.
7. Select a schedule, department, and employee job title (such as Intermediate Agent) and click **Next**.
8. Start WorkFORCE and click the **Forecast** icon to view all of the agents forecast for the particular department and job title selected in step 7.
9. Click the **Schedule** icon to view agent shift and availability details.

6120 CCS main screen

When you open 6120 CCS Figure 12-10 appears. This is the screen you use to add agent shifts, and to view and tweak agent schedules.

Figure 12-10 Schedules window

The Schedules window provides the following menu options.

The Schedules, Departments, Titles, and Skills lists specify which information you display on the grid.

You can click View=>Totals to specify types of availability information to display, such as the total agents forecasted and scheduled, and the total agents on break.
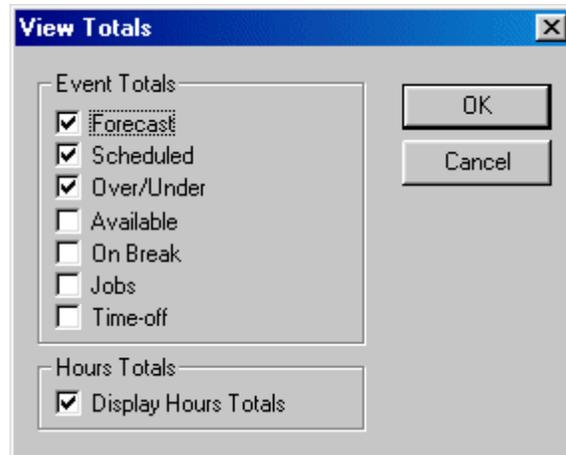
You can click the Insert menu to add an agent and shift, and specify shift parameters.
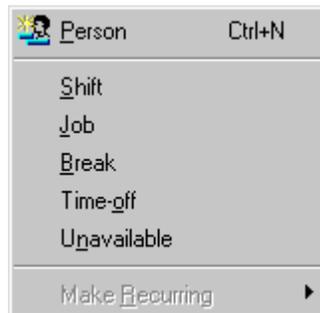
You can select Tools=>Options to specify overtime, vacation, holiday, shift, and auto-scheduling parameters.

Exporting, forecasting, and scheduling agents

To forecast and schedule agents:

1. Start the WorkFORCE program.
2. Click the **People** icon.

Figure 12-11 appears.

Figure 12-11 People window
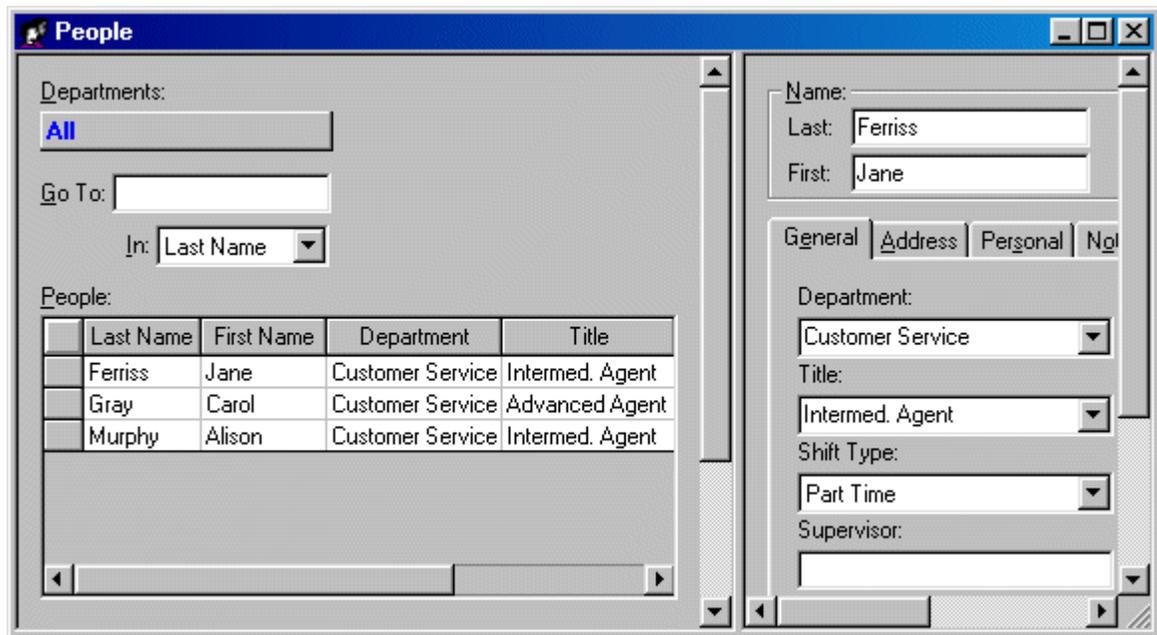
3. Right-click the **People** grid to insert agents, departments, schedules, and job categories.
4. Quit WorkFORCE.

NOTE: The export will not be successful if you do not quit 6120 CCS.

5. Start the 4Sight program.
6. Select a report type.
7. Select a queue or queue group on which to base the forecast.
8. Choose a start date and end date for the forecast.
9. Select a start hour and end hour for the forecast.
10. Choose the forecast interval (by 30 minutes *only* when generating a forecast for the WorkFORCE standalone version).
11. Click **Submit**.

4Sight renders a report and graphs in Microsoft Excel in your browser.

12. Click **View Report Inbox** (upon submitting a report) or click **Report Inbox**=>**Today**.
13. Click **View** to see the forecast results.
14. Click the **6110 CCM**=>**pFAdaptiv Export** Excel menu item and export the forecast data to WorkFORCE.

Figure 12-12 appears.

Figure 12-12 Select schedule parameters

15. Associate a schedule, department, and employee job title to the forecast data and click **Next**.

Figure 12-13 appears.

Figure 12-13 Select forecast dates

16. Select a start date and end date for the forecast and click **Finish**.
17. Wait while the forecast and schedule information is integrated.
18. Save your Excel spreadsheet if you made changes to the forecast output.
19. Start WorkFORCE.
20. Click the **Forecast** icon.

Figure 12-14 appears.

Figure 12-14 Forecast window
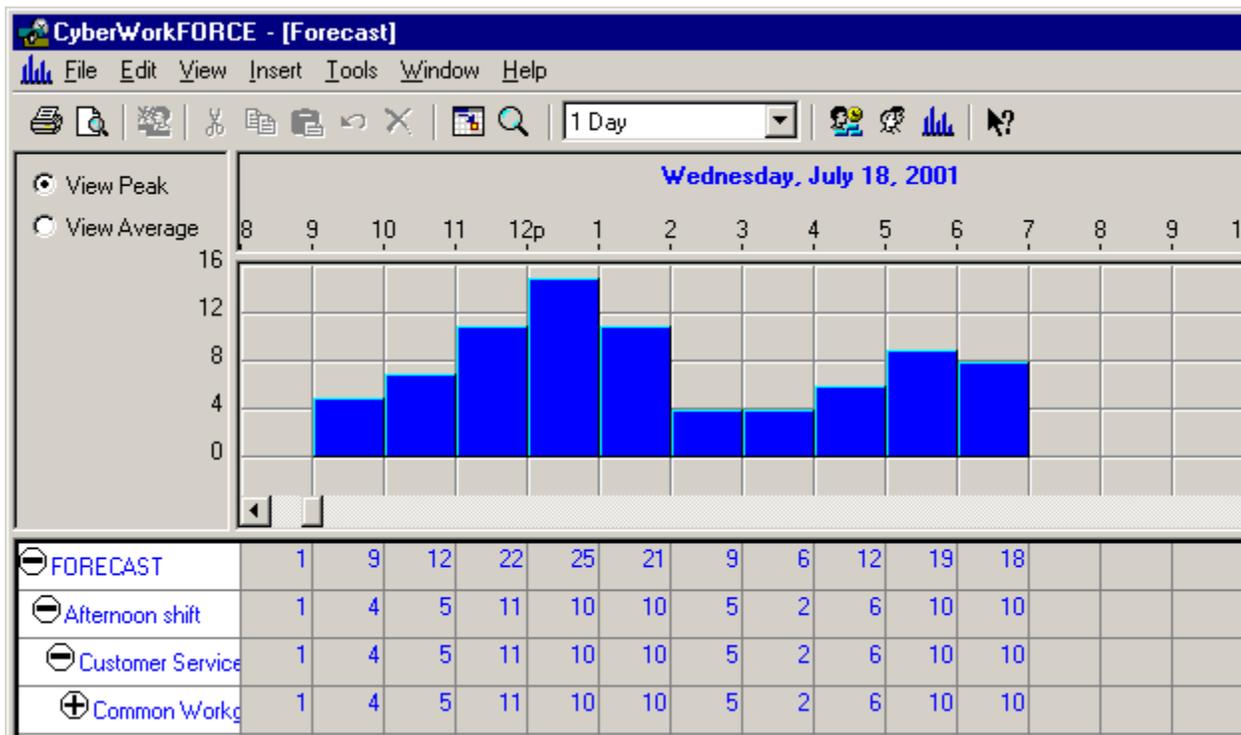
The Forecast window displays the agents forecast for the department, schedule, and job title you selected when exporting data from 4Sight.

To forecast the agent requirement for Agents in Training or Advanced Agents (for the Customer Service department), quit WorkFORCE, re-open the Excel forecast spreadsheet, click 6110 CCM=>6120 CCS Export, and associate new schedule information to the forecast data. When you re-open the Forecast window in WorkFORCE, forecast and schedule information is displayed for both job titles.

21. Click the **Schedule** icon to view agent shift and availability details.

Figure 12-15 appears.

Figure 12-15 Schedule window
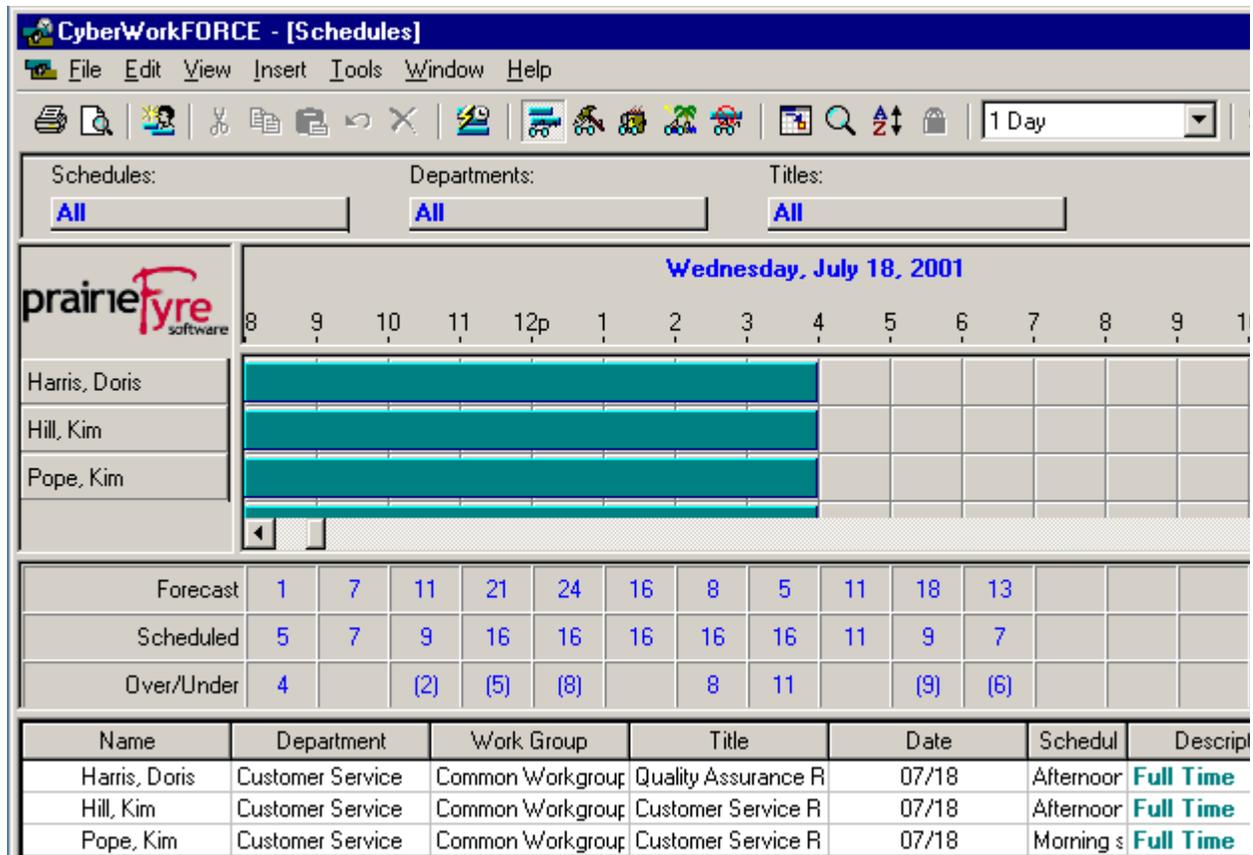
Forecast, agent shift, and agent availability information is displayed.

22. Click **View**=>**Totals**, select availability information to display, and click **OK**.
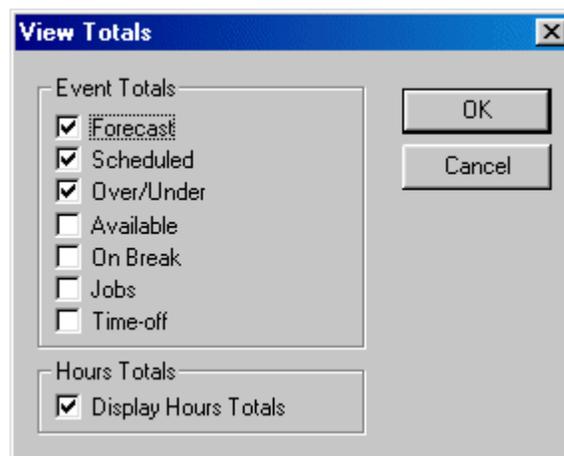
23. Forecast the agent requirement for other departments, schedules, and job titles.

Chapter 13 Mitel Networks 6150 MCC

Track and distribute e-mail requests.

Mitel Networks 6150 MCC

Configuring 6150 MCC

To configure all components of Mitel Networks™ 6150 MCC (Mulitmedia Contact Center) you must configure 6150 MCC and some of Mitel Networks 6110 CCM (Contact Center Management).

You can configure employees, agents, agent groups, queues, and responses with 6150 MCC Configuration.

You can configure Account Codes and Make Busy Reason Codes with 6110 CCM Configuration.

1. Using Internet Explorer, type in your 6110 CCM Enterprise Server IP address **http://**[your 6110 CCM Enterprise Server address]**/6110 CCM/**
2. Under **Username**, type the user name.
3. Under **Password**, type the password.
4. Click **YourSite=>6150 MCC Configuration**.

To configure employees

The Configuration window, Employees tab appears. (See Figure 13-1.)

Adding Employees

1. On the **Configuration** window, click the **Employees** tab.
2. Click **Add**.

Figure 13-1   Configuration window: Employees tab

Employees	Agents	Agent Groups	Queues	Responses	
Reporting	**Name**	**Nick name**
EMP999	aed tester	aedtester
3	Chris Courneya	Agent2002
8	Clarke LaPrairie	Agent2007
2	Erika Schom	Agent2001
9	Habib Mankal	Agent2008
11	Jimmy Lau	jimmy
4	Kelley Shrubsole	Agent2003
1	Kevin Ferris	Agent2000
12	Lana Todd	lana
6	Rob Chapman	Rob

Add   Edit   Delete

Status of your last operation:

The Employee Properties window appears. (See Figure 13-2.)

3. Under **Name**, type the employee's first name, space, and last name.

The name is two words separated by a space, and can be up to 50 characters.

NOTE: The name the employee currently uses as the window user name must be entered in the Public Folder/Windows User Name box.

4. Under **Public Folder/Windows User Name**, type the employee's Windows user name.

NOTE: The reporting number is used as identification. A reporting number for an employee can be up to 20 characters or digits. For example, the agent Jane Smith might be reporting number JS1. This report number would be referenced when a report is created from Jane Smith's e-mail data.

5. Under **Reporting**, type the reporting number.
6. Click **OK**.

Figure 13-2   Employee Properties window
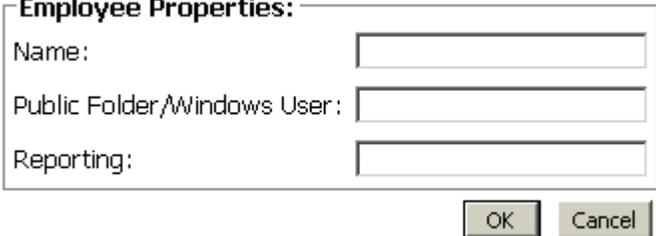
Editing Employees

NOTE: You cannot edit the Public Folder/Windows User Name box therefore it does not appear on the Employee Properties window when editing.

1. On the **Configuration** window, click the **Employees** tab.
2. Select the employee whose information you want to edit.

The Employee Properties box appears. (See Figure 13- 3.)

3. Select the name or the reporting number you want to edit.
4. Type the new name or the new reporting number.
5. Click **OK**.

Figure 13-3   Employee Properties window
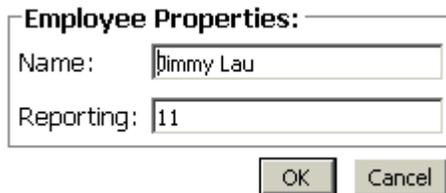
Deleting Employees

You must delete all agents linked to the employee before the employee can be deleted. You will not be permitted to delete an employee without first deleting the linked agents. A single employee can use several agent names. Employees are linked to agent names to indicate that they refer to the same person.

1. Click the **Agents** tab.
2. Select an agent linked to the employee you want to delete.
3. Click **Delete**.
4. Repeat until all agents linked to the employee are deleted.
5. Click the **Employees** tab.
6. Select the employee you want to edit.
7. Click **Delete**.

To configure agents

1. On the **Configuration** window, click the **Agents** tab.

The Agents window appears. (See Figure 13- 4.)

Adding Agents

1. Click **Add**.

Figure 13-4   Configuration window: Agents tab

Employees	Agents	Agent Groups	Queues	Responses	
ID	**Name**	**Nick name**	**Linked to Employee**	**Node Name**
6501	Chris Courneya (AED)	Chris	Chris Courneya	Exchange
6502	Habib (AED)	Habib	Habib Mankal	Exchange
6503	Kevin (AED)	kevin	Kevin Ferris	Exchange
6504	Rob (AED)	rob	Rob Chapman	Exchange
6505	Clarke (AED)	clarke	Clarke LaPrairie	Exchange
6506	Erika (AED)	erika	Erika Schom	Exchange
6507	Kelley (AED)	kelley	Kelley Shrubsole	Exchange
6508	Jimmy (AED)	jimmy	Jimmy Lau	Exchange
6509	Lana (AED)	lana	Lana Todd	Exchange
9999	aed tester	aed tester	aed tester	Exchange

Add   Edit   Delete

Status of your last operation:

The Agent Properties window appears. (See Figure 13- 5.)

2. Under **Name**, type the name.
3. Under **Nick name**, type the nick name.
4. Under **ID**, type the employee identification number.
5. Under **Node**, select the node from which the agent will receive calls.
6. Under **Linked to Employee**, select the name of the employee who is this agent.

Figure 13-5   Agent Properties window

Editing Agents

1. On the **Configuration** window, click the **Agents** tab.

1. Select the agent you want to edit.
2. Click **Edit**.

The Agent Properties window appear. (See Figure 13- 6.)

3. Under **Name**, type the agent name.

The name can be up to 50 characters.

4. Under **Nick name**, type the nick name.

This nick name will help you to keep track of which queue you are working on, if you have several queues. The nick name can be up to 50 characters.

5. Under **ID**, type the agent identification number.

The agent identification number can be from 1 to 7 digits.

6. Under **Node**, select the node from which the agent will receive e-mails.

A single employee can use several agent names. You must link the agent names to the employee to indicate that they refer to the same person.

7. Under **Linked to Employee**, select the name of the employee who is this agent.
8. Click **OK**.

Figure 13-6   Agent Properties window

Deleting Agents

1. On the **Configuration** window, click the **Agents** tab.
2. Select the agent you want to delete.
3. Click **Delete**.

To configure agent groups

1. On the **Configuration** window, click the **Agent Groups** tab.

The **Agent Groups** window appears. (See Figure 13- 7.)

Adding Agent Groups

1. Click **Add**.

Figure 13-7   Configuration window: Agent Groups tab

The Agent Group Properties window appears. (See Figure 13- 8.)

2. Under **Name**, type the agent group name.
3. Under **Public Folder Name**, type the agent group's Windows user name.
4. Under **ID**, type the agent group identification number.

The agent group identification number must be 3 digits.

5. Under **Node**, select the node from which the agent group will receive calls.
6. Click **OK**.

Figure 13-8   Agent Group Properties window

Editing Agent Groups

1. Click the **Agent Groups** tab.
2. Select an agent group.
3. Click **Edit**.

The Agent Group Properties window appears. (See Figure 13- 9.)

4. Select the name, or identification you want to edit.

The agent group identification number must be 3 digits.

5. Type the new item.
6. Alternatively, select the new node.
7. Click **OK**.

Figure 13-9   Agent Group Properties window

Deleting Agent Groups

You must delete all queues links to the agent group before the agent group can be deleted. You will not be permitted to delete an agent group without first deleting the linked queues.

1. Click the **Queues** tab.
2. Select a queue linked to the agent group you want to delete.
3. Click **Delete**.
4. Repeat until all queues linked to the agent group are deleted.
5. Click the **Agent Groups** tab.
6. Select the agent group you want to edit.
7. Click **Delete**.

To configure members of an agent group

You can add or remove the agents that compose the agent group with the Members button.

Adding an agent to an agent group

1. Click the **Agent Groups** tab.
2. Select the agent group to which you want to add the agent.
3. Click **Members.**

The Agent Group Members window appears. (See Figure 13- 10.)

4. Select an agent from the **Available Members** list.
5. Click the arrows pointing towards the **Member** list.
6. Click **OK**.

Figure 13-10   Agent Group Members window
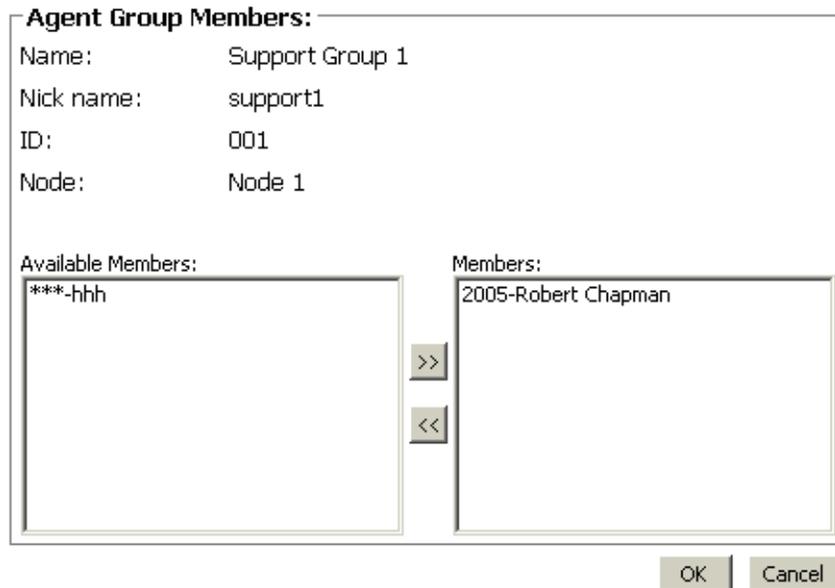
Removing an agent from an agent group

1. Click the **Agent Groups** tab.
2. Select the agent group to which you want to remove the agent.
3. Click **Members.**
4. Select an agent from the **Members** list.
5. Click the arrows pointing toward the **Available Members** list.
6. Click **OK**.

To configure queues

1. Click the **Queues** tab.

The Queues window appears. (See Figure 13- 11.)

Adding Queues

2. Click **Add**.

Figure 13-11   Configuration window: Queues tab
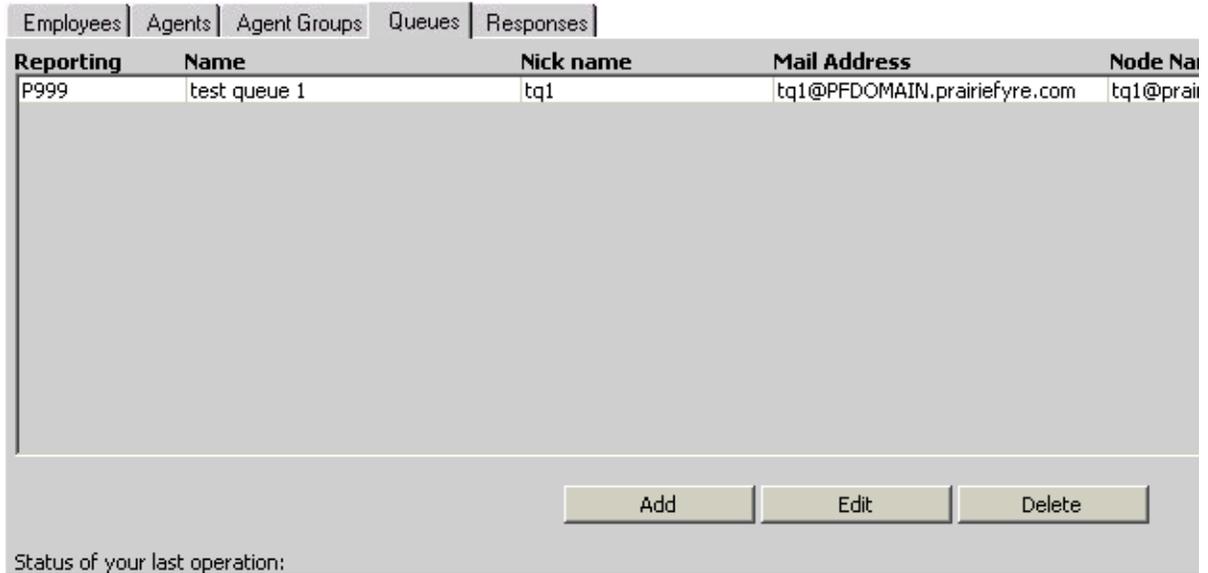
The Queue Properties window appears. (See Figure 13- 12.)

3. Under **Name**, type the queue name (up to 50 characters).
4. Under **Public Mail Address**, type the address.
5. Under **Reporting**, type the queue reporting number (Pxxx).
6. Select the **Node** you want.
7. Select the queue to the **Primary Agent Group** number (ranging from 0-999).
8. Type the **Interflow Time** (in minutes).
9. Select the **Interflow Queue**.
10. If you want to direct incoming e-mail to an e-mail address, click the **Enable External Inflow** check box.
11. Type the **Requeue Time** (in minutes).
12. Type the **Service Level** (in minutes).
13. Select a **Response Message**.
14. Type the **Overflow Time 1**,**2**, and **3** (in minutes).
15. Select the queue of the agent group for **Overflow Agent Group 1**,**2**, and **3** (ranging from 0-999).
16. Type the **Priority** value of the queue (1-10).
17. If you have enabled the External Inflow check box, type the **External Interflow Address** (e-mail address) you want the incoming e-mail to be directed to.
18. Type the **Hold Requeue Timeout** (in minutes).
19. Type the **Non Available Requeue Timeout** (in minutes).
20. Type the **Public Folder Name.**
21. Click **OK**.

Figure 13-12   Queue Properties window

Editing Queues

1. Click the **Queues** tab.
2. Click **Edit**.

The Queue Properties window appears. (See Figure 13- 13.)

3. Type or select the information to be edited.
4. Type or select the correct information.
5. Click **OK**.

Figure 13-13   Queue Properties window

Deleting Queues

Queues are linked to agent groups. Agent groups are linked to agents. You must first find the agent group(s) linked to the queue you want to delete. Then you must find the agents that are linked with that agent group.

You must delete all agents linked with the agent group before the agent group can be deleted. You will not be permitted to delete an agent group without first deleting the linked agents. Then you must delete the agent group, and only then can you delete the queue.

1. Click the **Agents** tab.
2. Select each agent you want to delete.
3. Click **Delete**.
4. Click the **Agent Groups** tab.
5. Select each agent group you want to delete.
6. Click **Delete**.
7. Click the **Queues** tab.

8. Select the queue you want to delete.
9. Click **Delete**.

To configure responses

1. Click the **Responses** tab.

The **Responses** window appears. (See Figure 13- 14.)

2. Click **Add**.

Figure 13-14   Configuration window: Responses tab
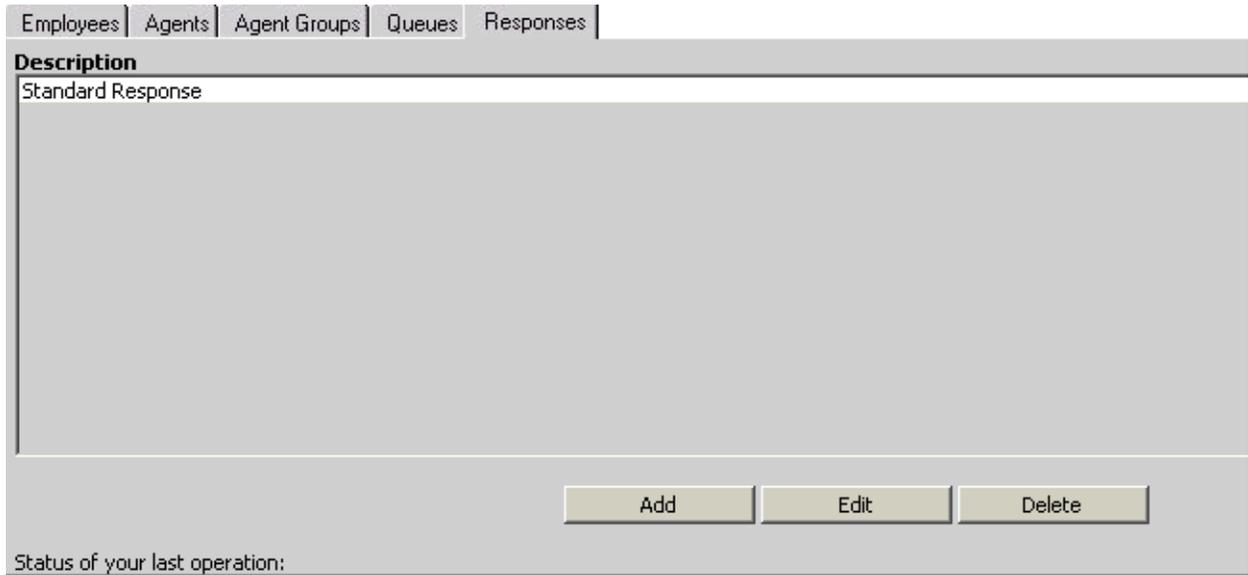
The Response Message Properties window appears. (See Figure 13- 15.)

Adding Responses

3. Under **Description**, type the response description.

For example, type "out of office" if you will use this response when you are out of the office.

4. Select the **The body of this message should be sent as HTML** check box.

You must have Internet Explorer 5.5 to support the HTML features.

5. Under **Message Body**, type the message.
6. Click **OK**.

Figure 13-15   Response Message Properties window

Editing Responses

1. Click the **Responses** tab.
2. Select the response you want to edit.
3. Click **Edit**.

The Response Message Properties window appears. (See Figure 13- 16.)

4. Under **Description**, type the new description.
5. Under **Message Body**, type the new message.
6. Click **OK**.

Figure 13-16   Response Message Properties window

Deleting Responses

1. Click the **Responses** tab.
2. Select the response you want to delete.
3. Click Delete.

Configuring 6110 CCM

1. Using Internet Explorer, type the URL **http://**(IP address)**/6110 CCM/ start_en.asp.**
2. Under **Username**, type the user name.
3. Under **Password**, type the password.
4. Click **YourSite=>Configuration**.

To configure Account Codes

Adding an Account Code

1. Click the **Account Code** tab.

The Account Code window appears. (See Figure 13- 17.)

2. Right-click the first Account Code, and select **Add**.

Figure 13-17   Account Code window
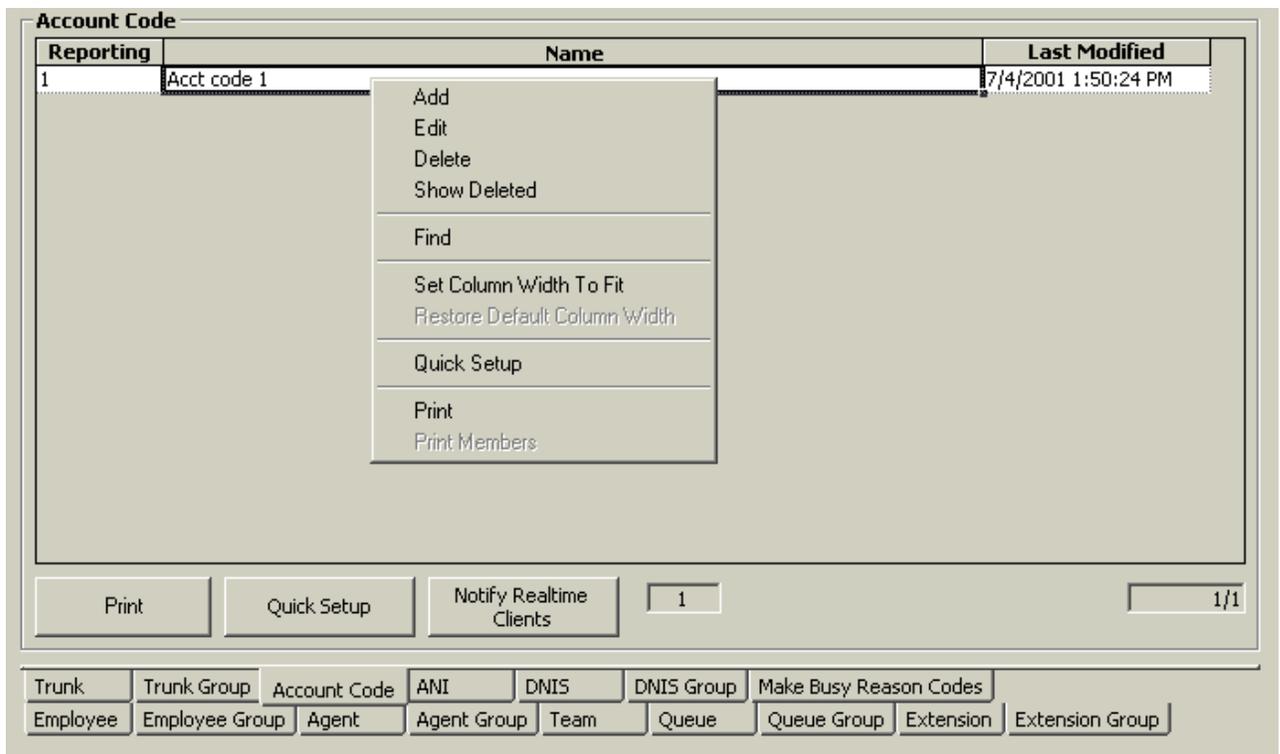
The Add Account Code window appears. (See Figure 13- 18.)

3. Under **Reporting**, type the Account Code.
4. Under **Name**, type the name of the Account Code.
5. Click **Add All**.

Figure 13-18   Add Account Code window
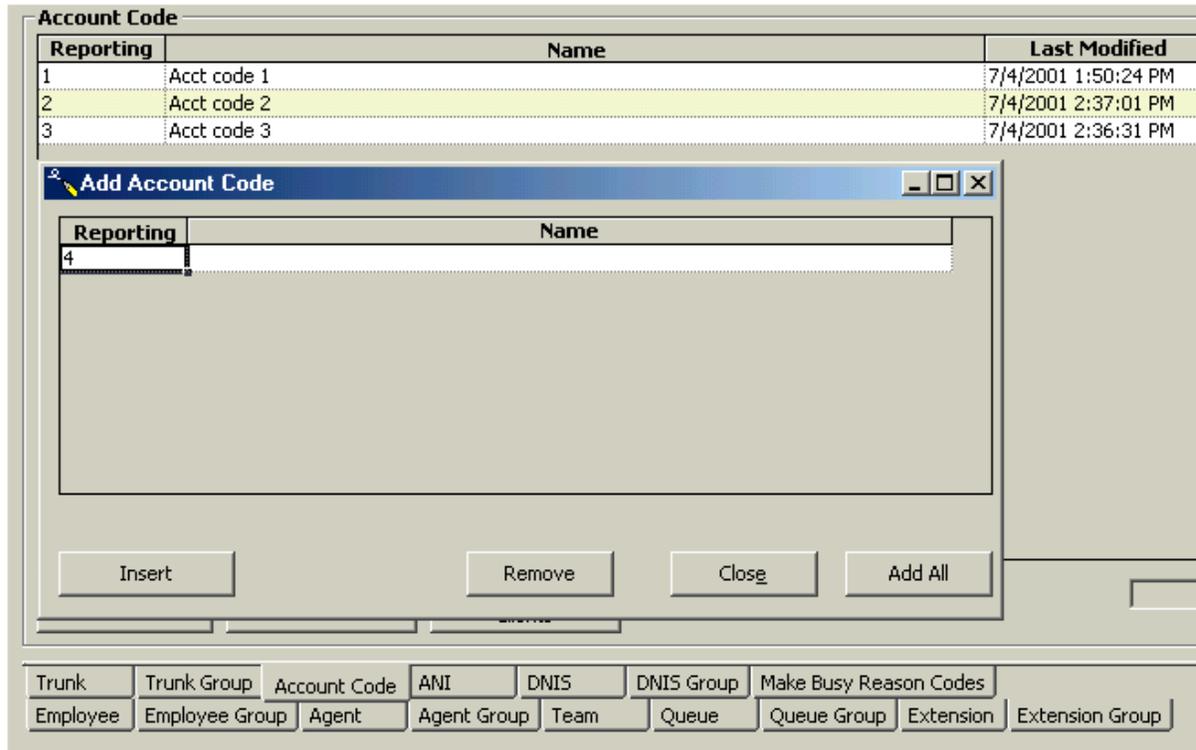
The Your Site Configuration window appears indicating the success or failure of the addition.
(See Figure 13- 19.)

6. Click **OK**.

Figure 13-19   Your Site Configuration window

Editing an Account Code

1. Click the **Account Code** tab.
2. Right-click the Account Codes, and select **Edit**.
3. Select the Account Code you want to edit.
4. Under **Reporting**, type the correct Account Code.
5. Under **Name**, type the correct name.
6. Press **Enter**.
7. Click **Update**.

The Your Site Configuration window appears indicating the success or failure of the edition.

8. Click **OK**.

Deleting an Account Code

1. Click the **Account Code** tab.
2. Right-click the Account Codes, and select **Delete**.

The Delete Account Code window appears. (See Figure 13- 20.)

3. Select the Account Code you want to delete.
4. Click **Remove**.

The Delete Account Code window appears. (See Figure 13- 20.)

5. Click **Yes**.

The Your Site Configuration window appears indicating the success or failure of the deletion.

6. Click **OK**.
7. Click **Close**.

Figure 13-20   Delete Account Code window
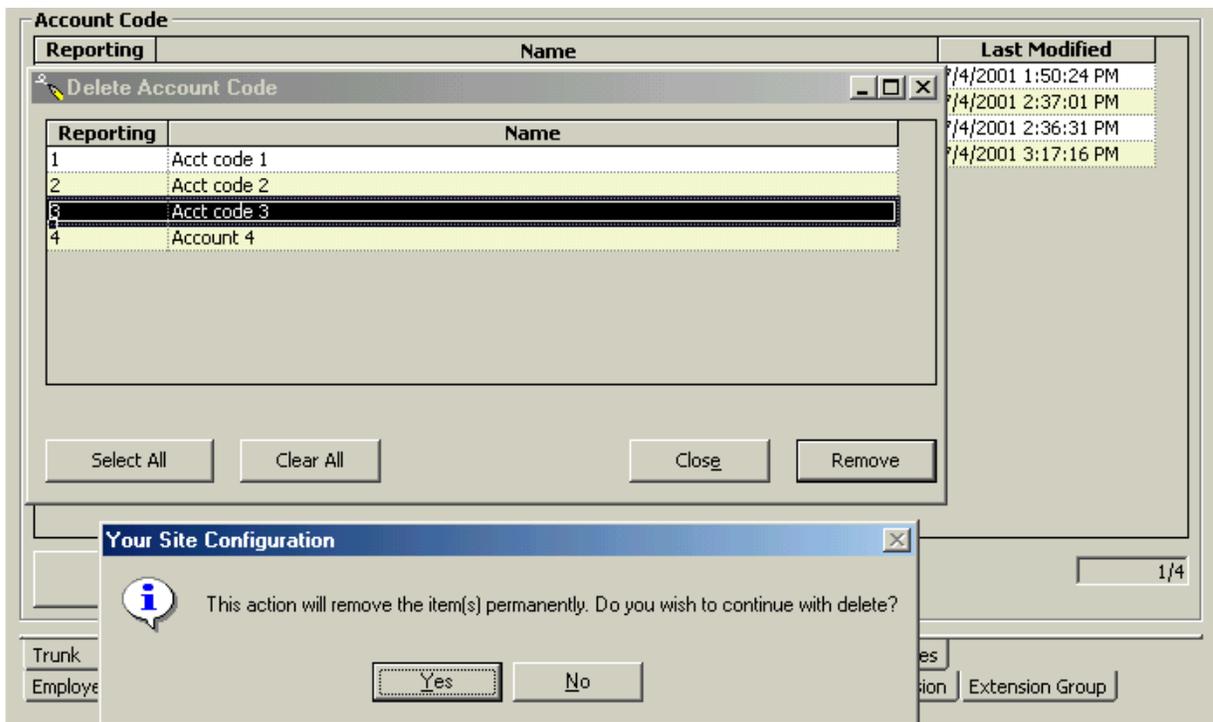
To configure Make Busy Reason Codes

Adding a Make Busy Reason Code

1. Click the **Make Busy Reason Codes** tab.
2. Right-click the first Make Busy Code, and select **Add**.

The Make Busy Reason Codes window appears. (See Figure 13- 21.)

3. Under **Reporting**, type the Make Busy Code.
4. Under **Name**, type the name of the Make Busy Code.
5. Click **Add All**.

Figure 13-21   Add Make Busy Reason Codes window

The Your Site Configuration window appears indicating the success or failure of the addition. (See Figure 13- 22.)

6. Click **OK.**

Figure 13-22   Your Site Configuration window

Editing a Make Busy Reason Code

1. Click the **Make Busy Reason Code** tab.
2. Right-click the Make Busy Reason Codes, and select **Edit**.
3. Select the Make Busy Reason Code you want to edit.
4. Under **Reporting**, type the correct Make Busy Reason Code.
5. Under **Name**, type the correct name.
6. Press **Enter**.
7. Click **Update**.

The Your Site Configuration window appears indicating the success or failure of the edition.

8. Click **OK**.

Deleting a Make Busy Reason Code

1. Click the **Make Busy Reason Code** tab.
2. Right-click the Make Busy Reason Codes, and select **Delete**.
3. Select the Make Busy Reason Code you want to delete.
4. Click **Remove**.

The Your Site Configuration window appears.

5. Click **Yes**.

The Your Site Configuration window appears indicating the success or failure of the deletion.

6. Click **OK**.
7. Click **Close**.

Changing 6150 MCC options

There are three types of 6150 MCC options that can be changed:

- RealTime Server Connection Parameters
- 6150 MCC Startup Options
- 6150 MCC Mail Arrival Options

RealTime Server Connection Parameters options allow you to change the IP address and port number.

The 6150 MCC Startup options allow you to change which inbox appears when Outlook 2000 is opened, make the log on window appear when Outlook is opened, and view the 6150 MCC shortcuts.

6150 MCC Mail Arrival Options allow you to change the way the 6150 MCC mail arrives. For example, Outlook can be set to appear as the top window when e-mail arrives. You can also change the sound file used to indicate an e-mail has arrived.

To change the IP address and port number

1. Double-click on the Outlook 2000 desktop icon.

Outlook 2000 opens.

2. Click **Tools=>Options**.

The Options window appears. (See Figure 13- 23.)

3. Click the **6150 MCC** tab.
4. Under **IP Address**, type the correct IP Address.
5. Under **Port Number**, type the correct Port Number.
6. Click **OK**.

Figure 13-23   Options window: IP Address and Port Number
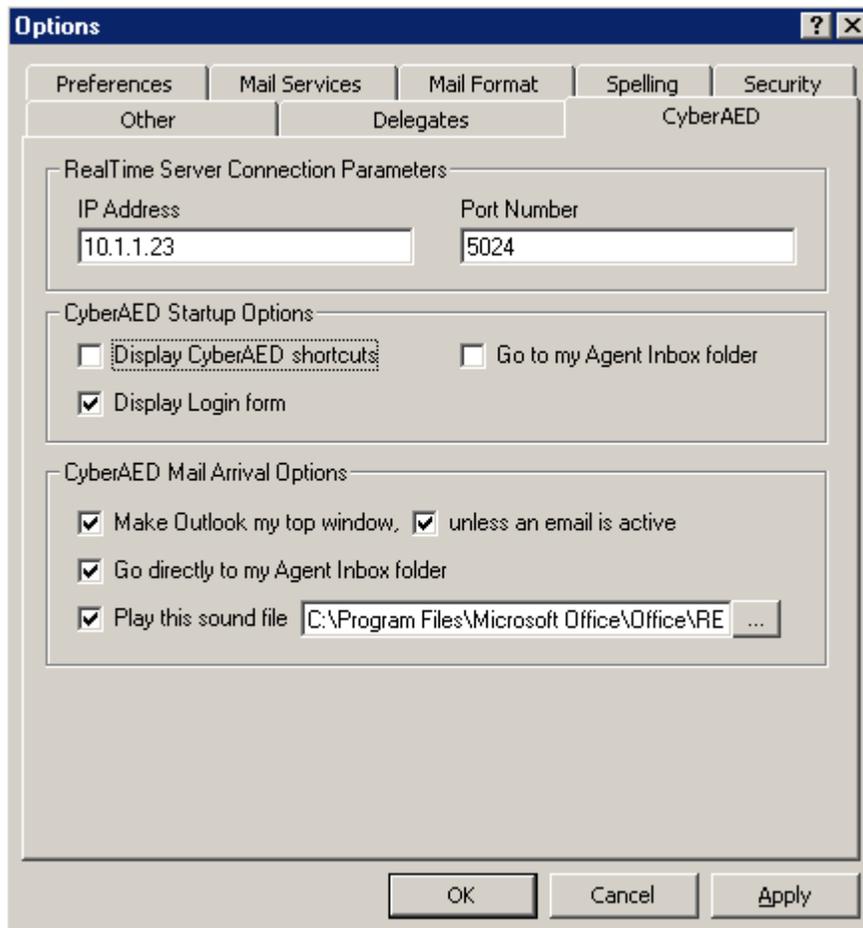
To open Outlook 2000

If you have not yet installed Microsoft Outlook 2000 on the client computer, do so now.

NOTE: The user name for the client computer installation is the user's name not *prairieFyre*.

See *Mitel Networks 6150 Mulitmedia Contact Center Installation Guide:* Installing Outlook 2000 and Starting Outlook.

The first time you start Outlook 2000 after you have installed 6150 MCC, you will be asked if the 6150 MCC plug-in should be loaded each time Outlook 2000 is started.

NOTE:

- Do not load the 6150 MCC plug-in if you are opening Outlook 2000 on a computer that acts as both server and client computer. A server will start Outlook for reasons additional to e-mail retrieval.
- If you do not load the plug-in, you will need to load it manually when you want to access your 6150 MCC e-mail.

Opening Outlook 2000

1. Double-click the **Outlook 2000** desktop icon.

The Inbox Microsoft Outlook window appears.

Manually loading the 6150 MCC plug-in

2. Click **Tools=>Options**.

The Options window appears.

3. Click the **Other** tab.
4. Under **General**, click **Advanced Options**.

The Advanced Options window appears.

5. Click **COM Add-Ins**.
6. Select the **6150 MCC Outlook Plugin** check box.
7. Click **OK**.
8. Close the **Options** window.

To view the 6150 MCC inbox when Outlook starts up

If the 6150 MCC plug-in is loaded, then when you open Outlook 2000, by default, you will be directed to your 6150 MCC inbox, located in the Public Folders. That means that you already will view the 6150 MCC inbox when Outlook starts up. (See Figure 13- 24.)

However, if the 6150 MCC plug-in is not loaded, then when you open Outlook 2000, you will be directed to your personal inbox. You will have to go to your options window and load 6150 MCC manually, and then change the Go to my Agent Inbox folder 6150 MCC Startup Option.

See "Manually loading the 6150 MCC plug-in" on page 386.

Go to my Agent Inbox folder 6150 MCC Startup Option

1. On the explorer bar, under **6150 MCC**, click **Agent Inbox**.
2. Click **Tools=>Options**.

Figure 13-24   Microsoft Outlook: 6150 MCC Inbox
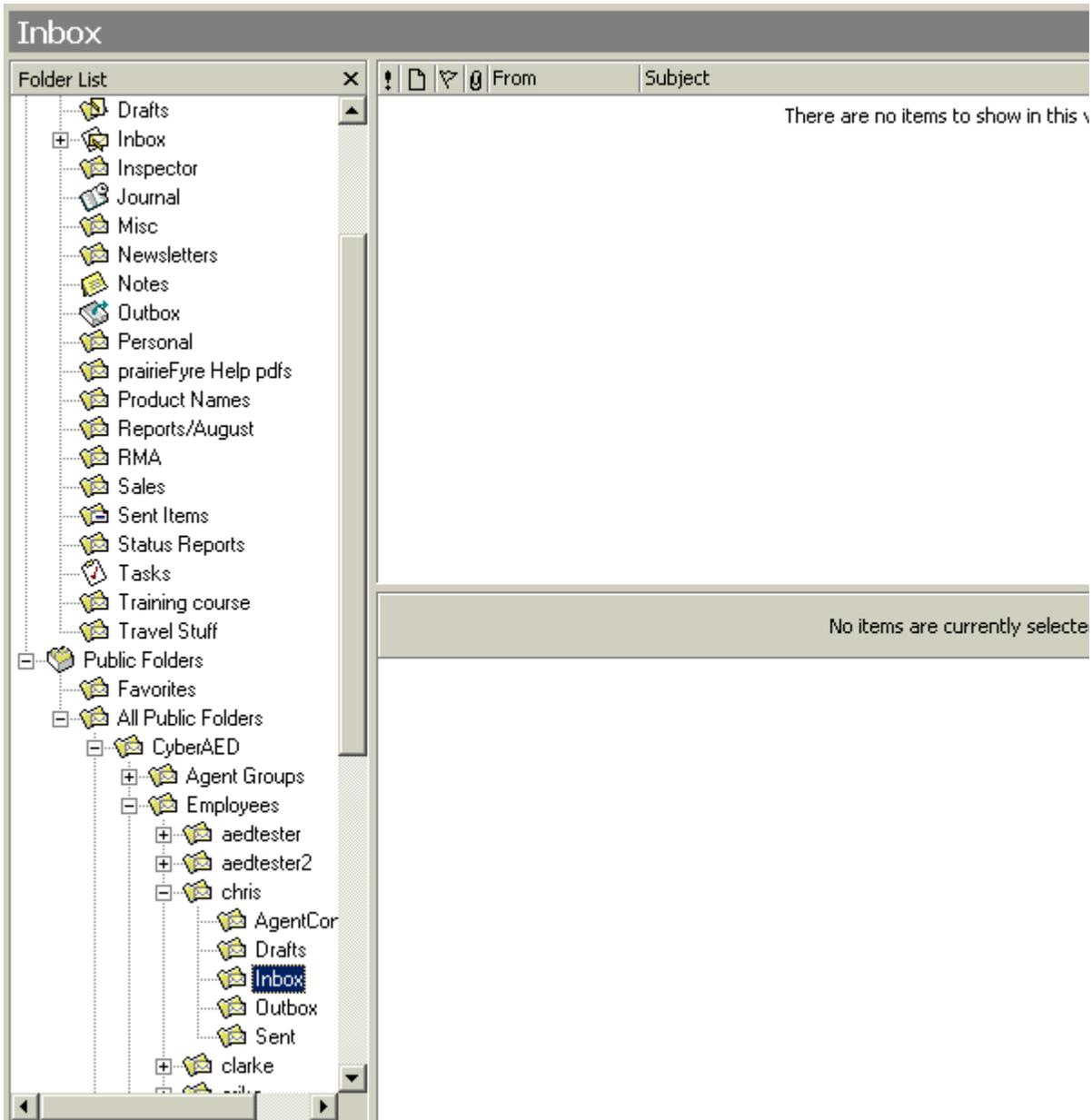
The Options window appears. (See Figure 13- 25.)

3. Click the **6150 MCC** tab.
4. Under **6150 MCC Startup Options**, select the **Go to my Agent Inbox folder** check box.
5. Click **OK**.

Figure 13-25   Options window: Go to my Agent Inbox folder
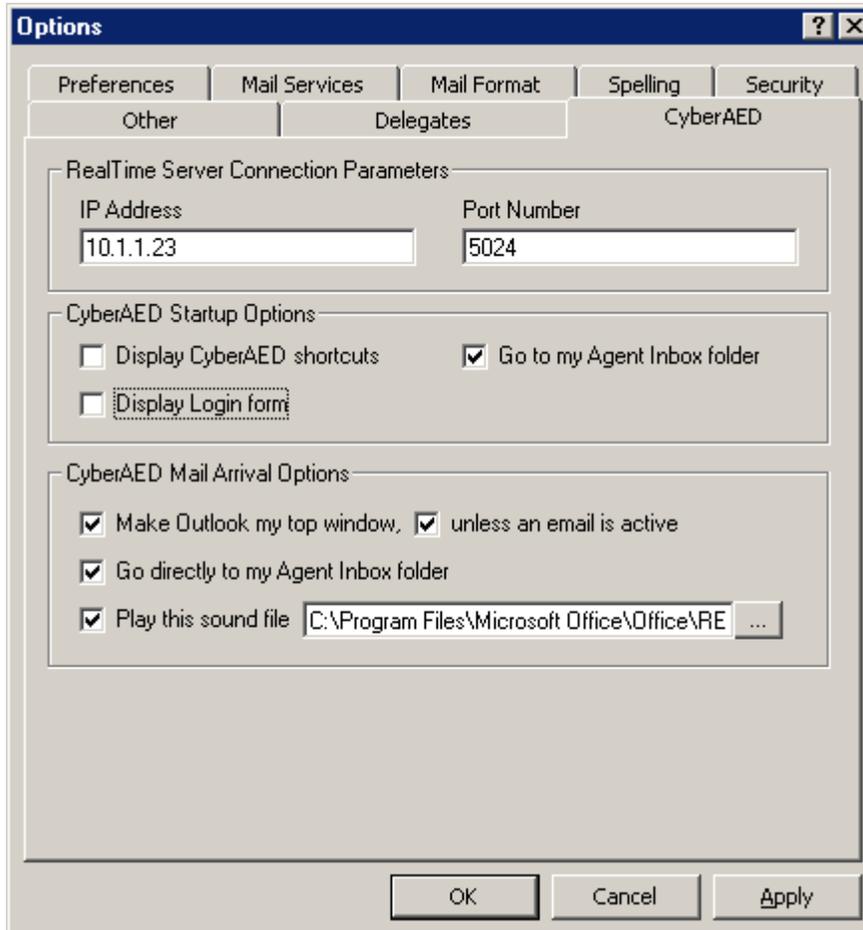
To display 6150 MCC shortcuts

You can display 6150 MCC shortcuts with the 6150 MCC Startup Options.

1. Select your 6150 MCC inbox.
2. Click **Tools=>Options**.

The Options window appears. (See Figure 13- 26.)

3. Click the **6150 MCC** tab.
4. Under **6150 MCC Startup Options**, select the **Display 6150 MCC shortcuts** check box.
5. Click **OK**.

Figure 13-26   Options window: Display 6150 MCC shortcuts
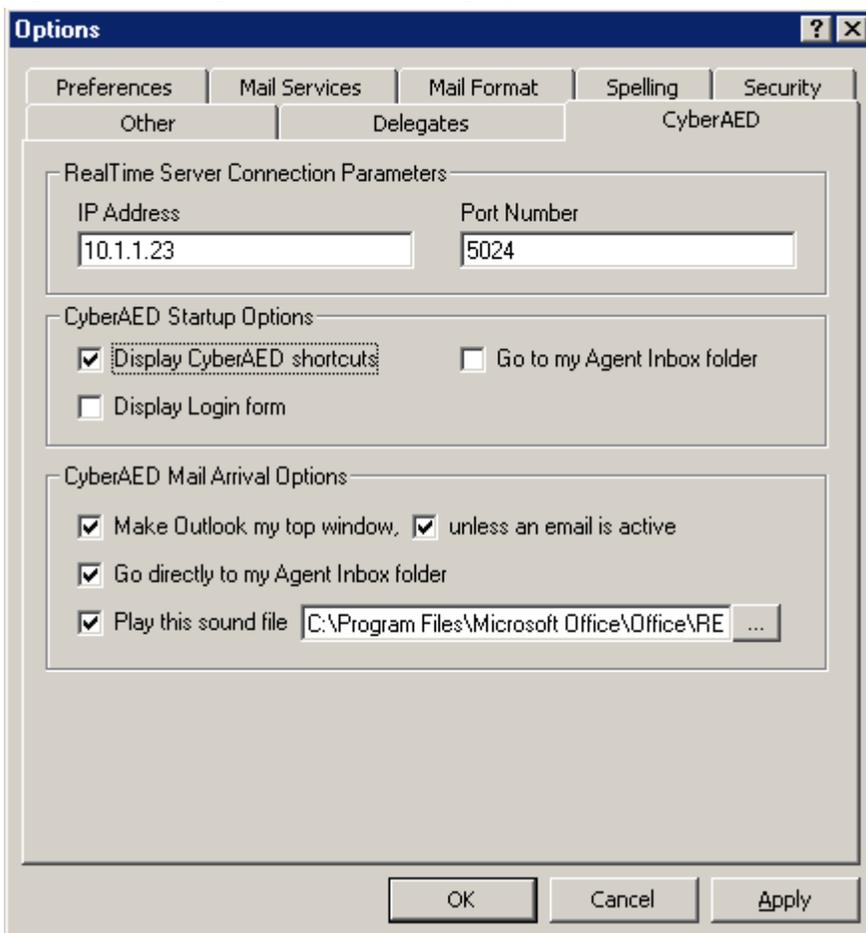
To display the log on window when Outlook 2000 opens

You can display the log on window when Outlook 2000 opens.

1. Select your 6150 MCC inbox.
2. Click **Tools=>Options**.

The Options window appears. (See Figure 13- 27.)

3. Click the **6150 MCC** tab.
4. Under **6150 MCC Startup Options**, select the **Display Login form** check box.
5. Click **OK**.

Figure 13-27   Options window: Display 6150 MCC shortcuts
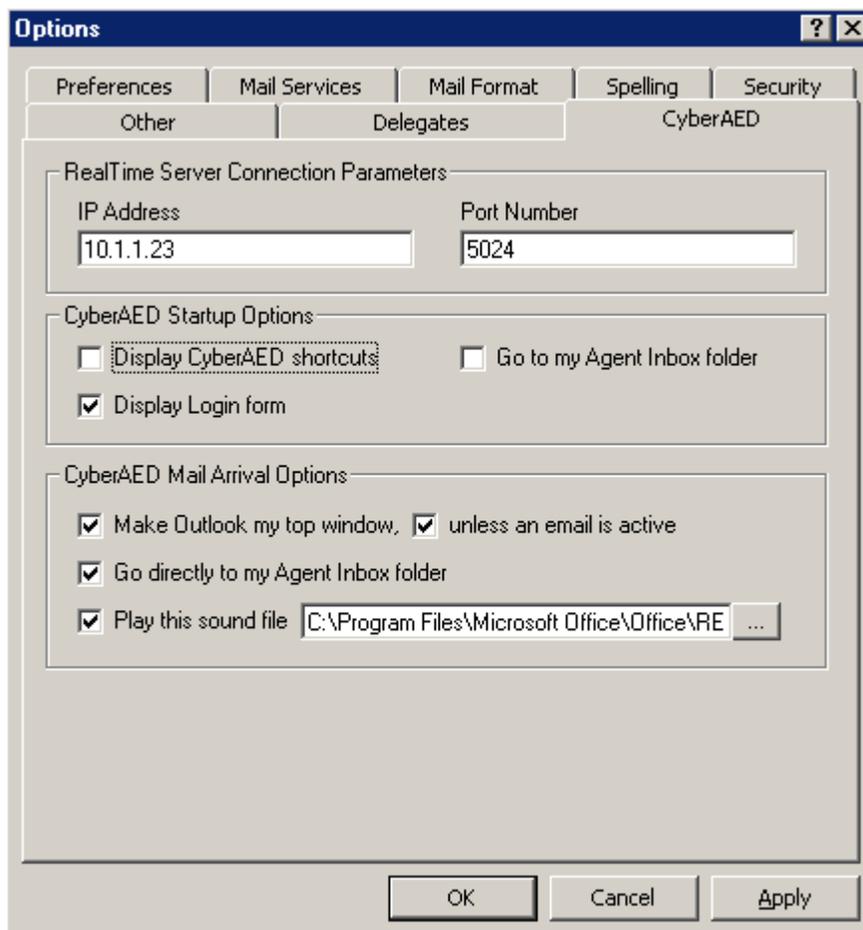
To make Outlook your top window when an e-mail arrives

You can make an incoming e-mail appear as your top window with the 6150 MCC Mail Arrival Options.

1. Select your 6150 MCC inbox.
2. Click **Tools=>Options**.

The Options window appears. (See Figure 13- 28.)

3. Click the **6150 MCC** tab.
4. Under **6150 MCC Mail Arrival Options**, select the **Make Outlook my top window** check box.
5. Select the **unless an email is active** check box.
6. Click **OK**.

Figure 13-28   Options window: Make Outlook my top window
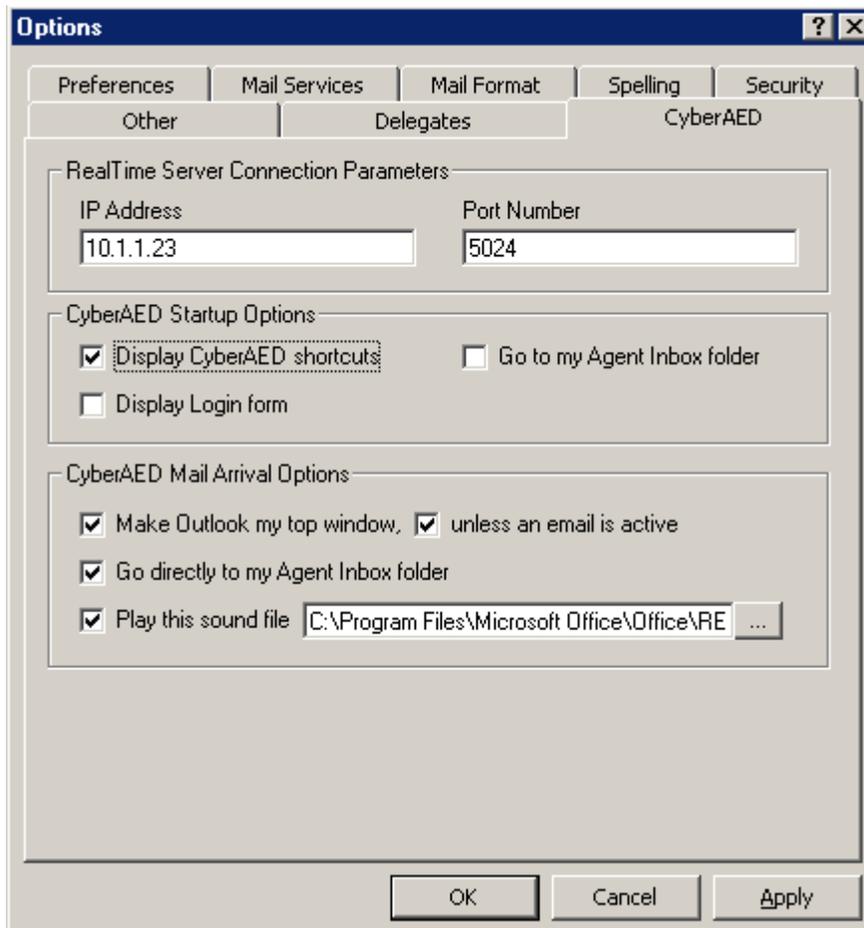
To direct e-mail to the 6150 MCC inbox

All e-mail, by default, is sent to your personal inbox. You can send 6150 MCC e-mail to your
Agent Inbox public folder with the 6150 MCC Mail Arrival Options.

1. Select your 6150 MCC inbox.
2. Click **Tools=>Options**.

The Options window appears. (See Figure 13- 29.)

3. Click the **6150 MCC** tab.
4. Under **6150 MCC Mail Arrival Options**, select **Go directly to my Agent Inbox
   folder** check box.
5. Click **OK**.

Figure 13-29   Options window: Go directly to my Agent Inbox folder
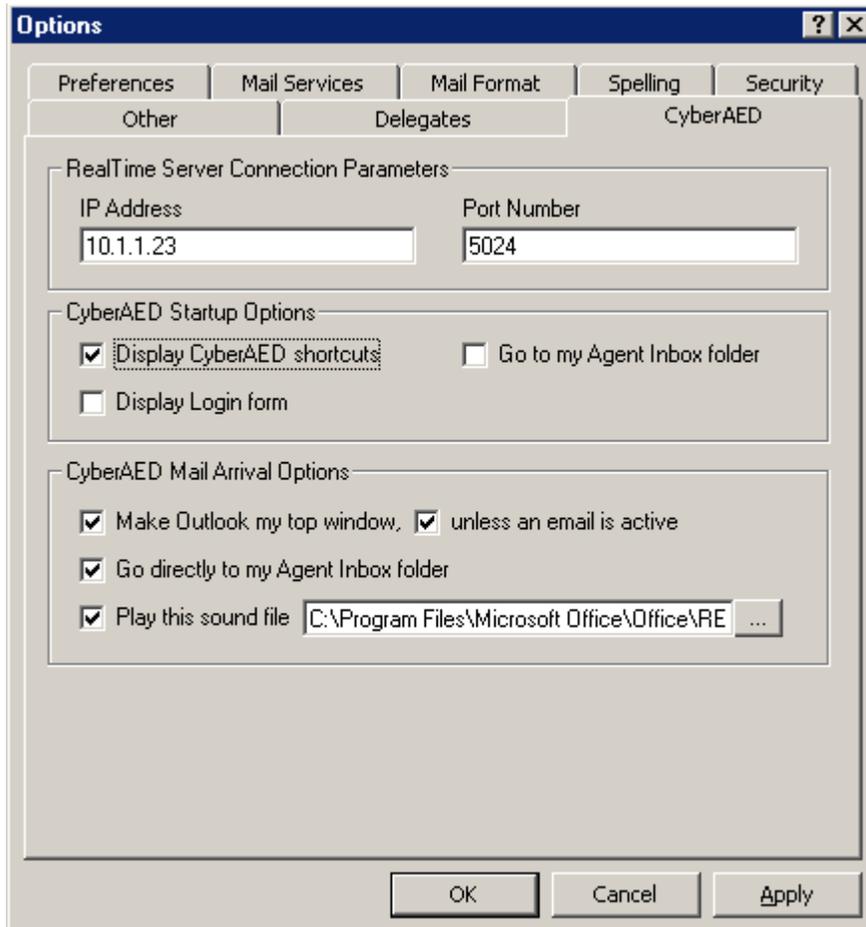
To change the 6150 MCC e-mail arrival sound file

You can change the 6150 MCC e-mail arrival sound file with the 6150 MCC Mail Arrival Options.

1. Select your 6150 MCC inbox.
2. click **Tools=>Options**.

The Options window appears. (See Figure 13- 30.)

3. Click the **6150 MCC** tab.
4. Click the ellipses button.
5. Select the sound file (.WAV) that you want.
6. Click **Open**.
7. Under **6150 MCC Mail Arrival Options**, select **Play this sound file** check box.
8. Click **OK**.

Figure 13-30   Play this sound file
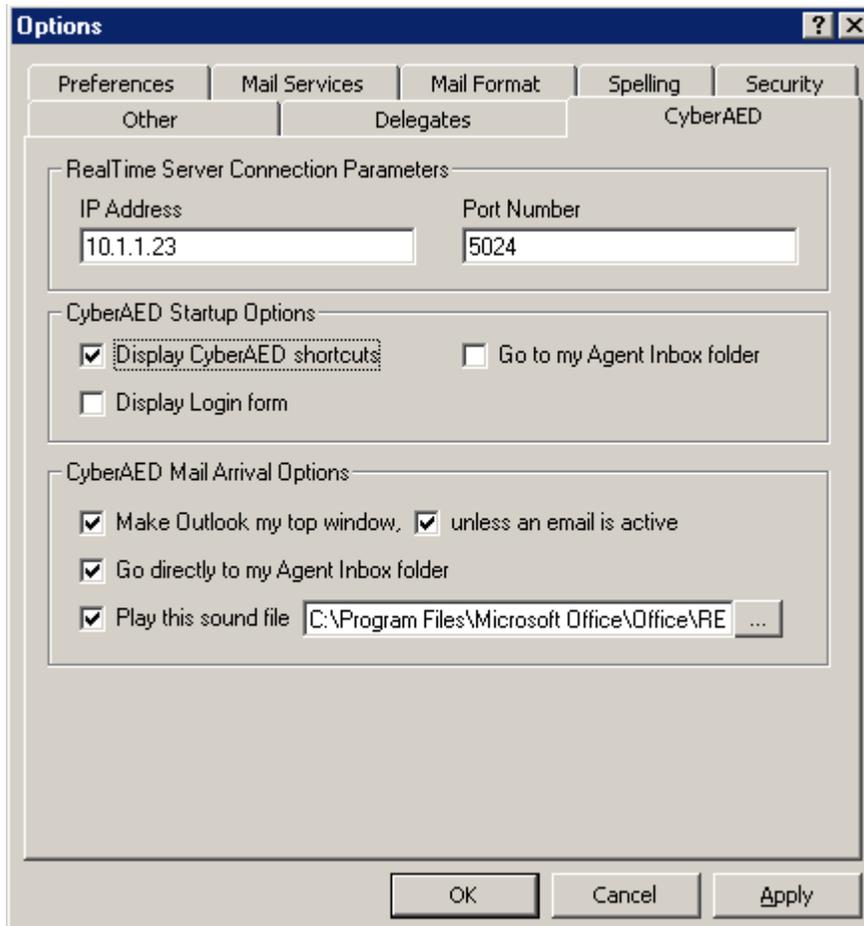
Setting agent actions

Agent actions are logging on, logging off, setting Make busy Reason Codes, and removing Make Busy codes.

To log on to 6150 MCC

1. Open **Outlook 2000**.
2. Click **Agent Actions=>Login**. (See Figure 13- 31.)

Figure 13-31   6150 MCC: Login
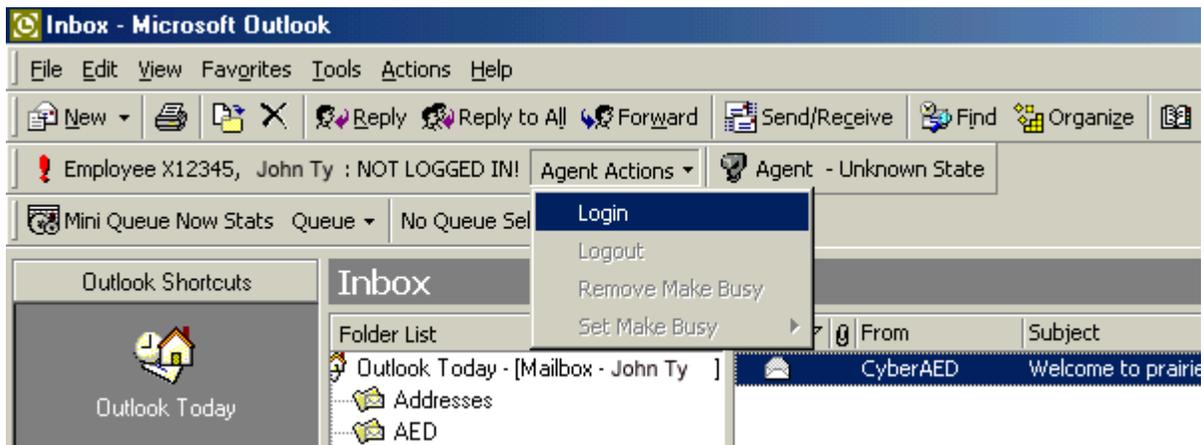
The 6150 MCC Login window appears. (See Figure 13- 32.)

3. Click the Agent ID check box that you will use to log on.
4. Click **Login**.

Figure 13-32   6150 MCC Login window

You are now logged on and available to answer incoming e-mails. (See Figure 13- 33.)

Figure 13-33   6150 MCC: logged on and available
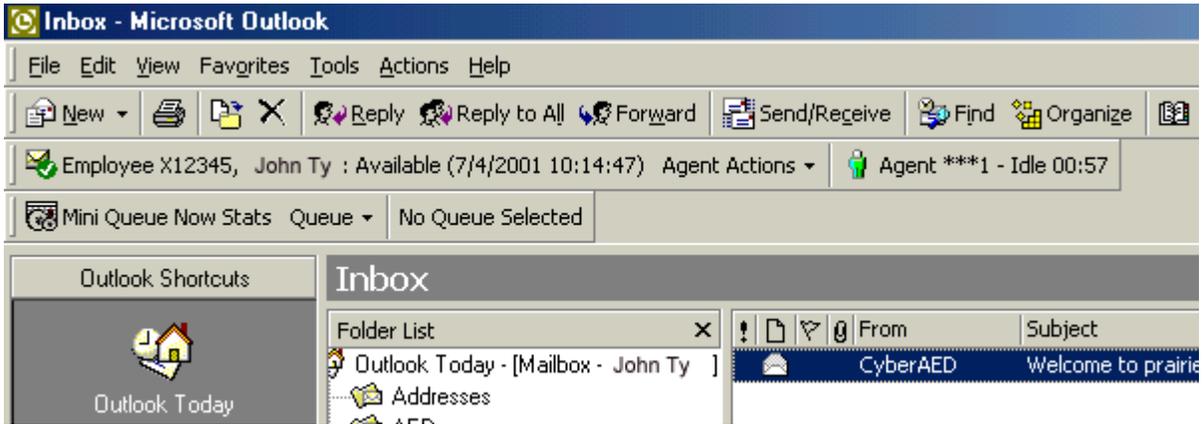
To log off from 6150 MCC

- On the **Inbox-Microsoft Outlook** window click **Agent Actions=>Logout**. (See Figure 13- 34.)

Figure 13-34   6150 MCC: Logout
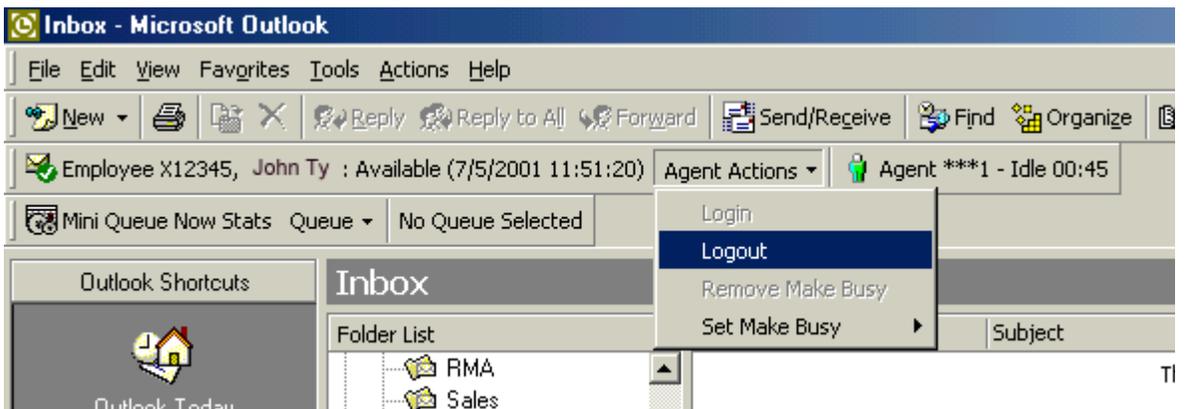
To set a Make Busy Reason Code

1. Open **Outlook 2000**.
2. Click **Agent Actions=>Set Make Busy**.
3. Select the Make Busy Reason code you want to apply. (See Figure 13- 35.)

Figure 13-35   Set Make Busy
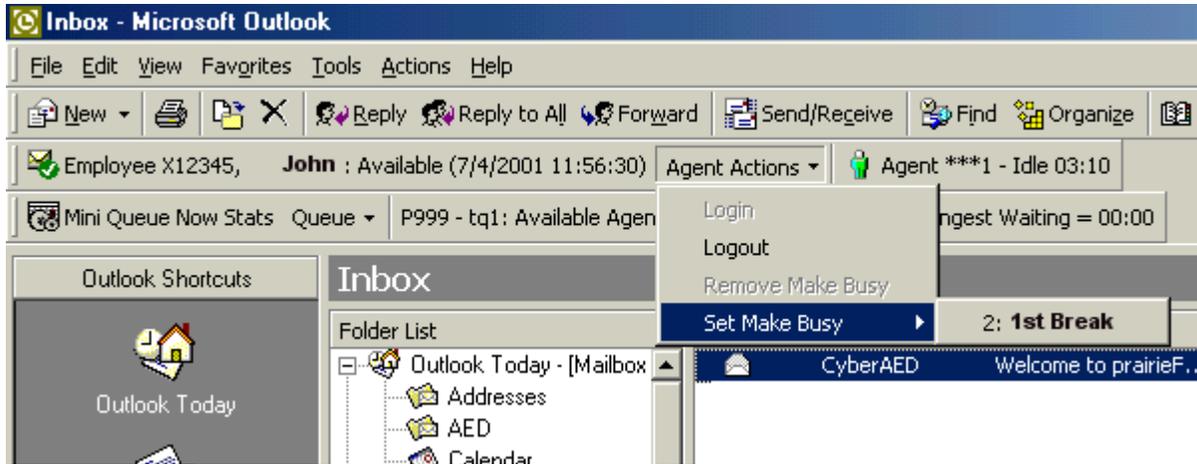
The Make Busy Reason (MKB) code now appears as Morning Break. (See Figure 13- 36.)

Figure 13-36   Morning Break
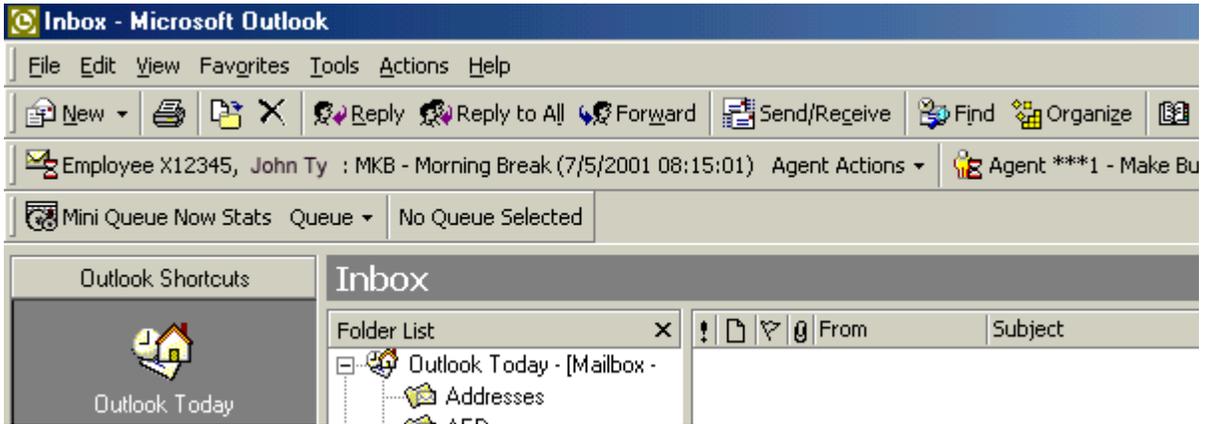
To remove Make Busy

- On the **Inbox – Microsoft Outlook** window, click **Agent Actions=>Remove Make Busy**. (See Figure 13- 37.)

Figure 13-37   Remove Make Busy
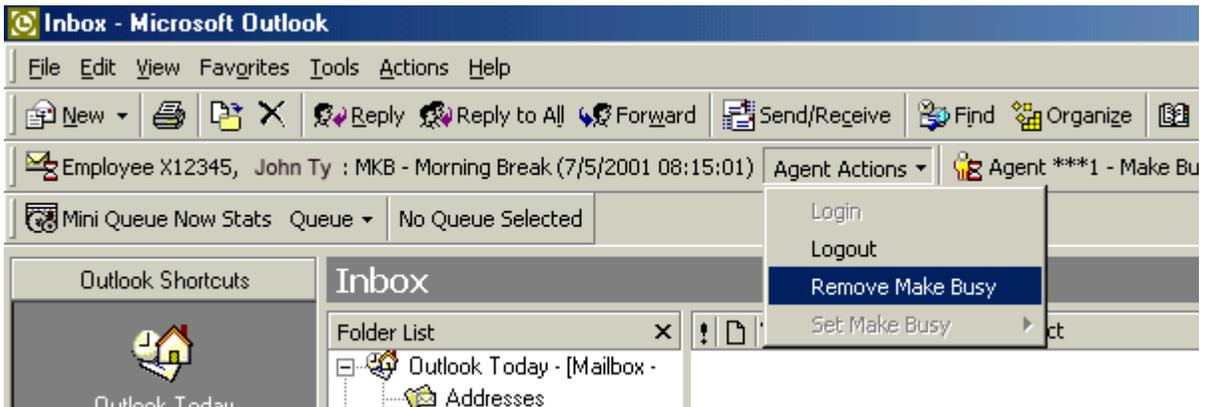
Responding to an e-mail

When you select a 6150 MCC e-mail, the e-mail window appears. (See Figure 13- 38.)

You have five options when responding to the e-mail:

- Set **Account Codes**
- **Hold** the e-mail
- **Transfer** the e-mail
- **No Reply Needed**
- **Send** the e-mail

You can add an account code to indicate if the customer was happy with the service. You can hold the e-mail while waiting for further information before you respond to the customer's request, or you can transfer the e-mail to another agent or queue who has the required information. You can reply to the e-mail and send it, or you can tag it with No Reply Needed.

Figure 13-38   E-mail window
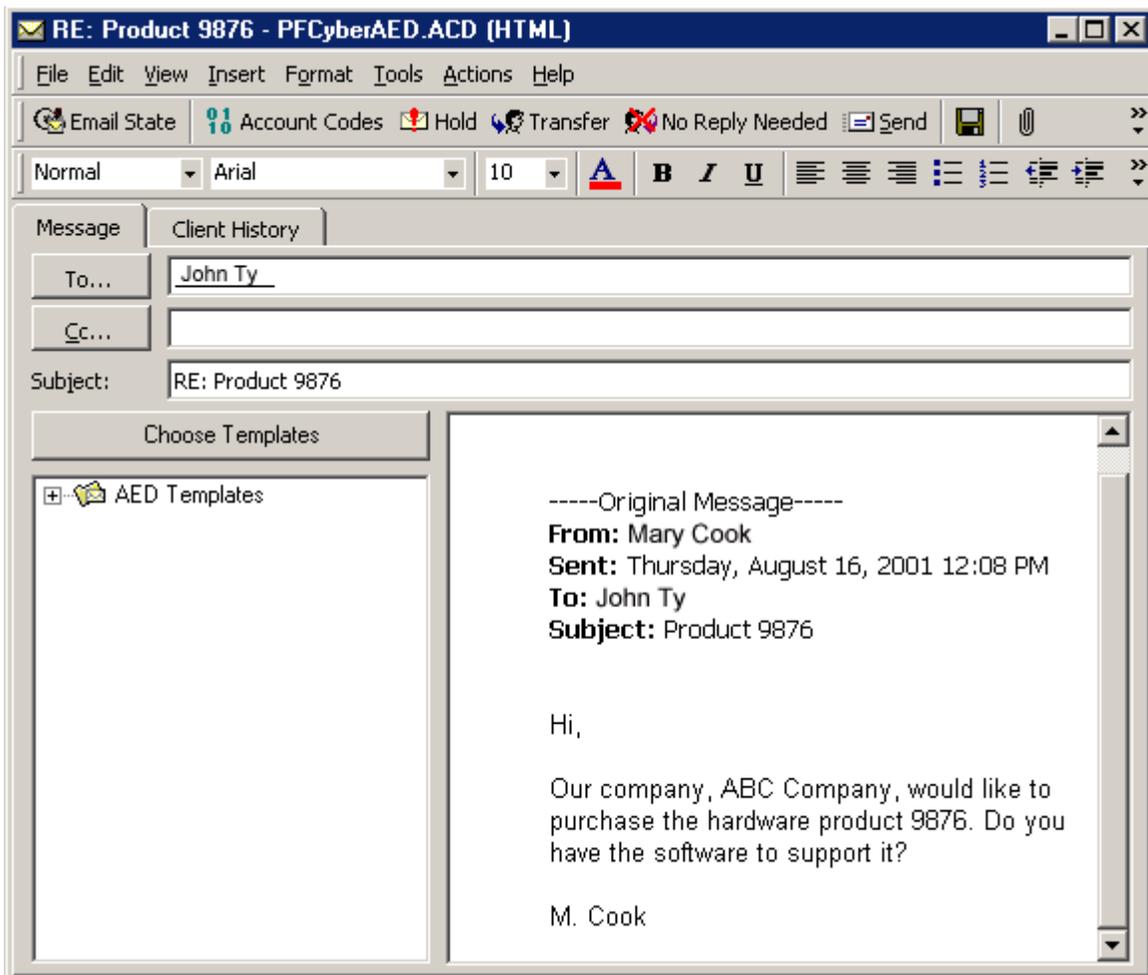
To set an Account Code

1. On the 6150 MCC e-mail window, click **Account Codes**.

The 6150 MCC Account Codes window appears. (See Figure 13- 39.)

2. Select the check box of the Account Code you want to apply.
3. Click **Submit**.

Figure 13-39   6150 MCC Account Codes window
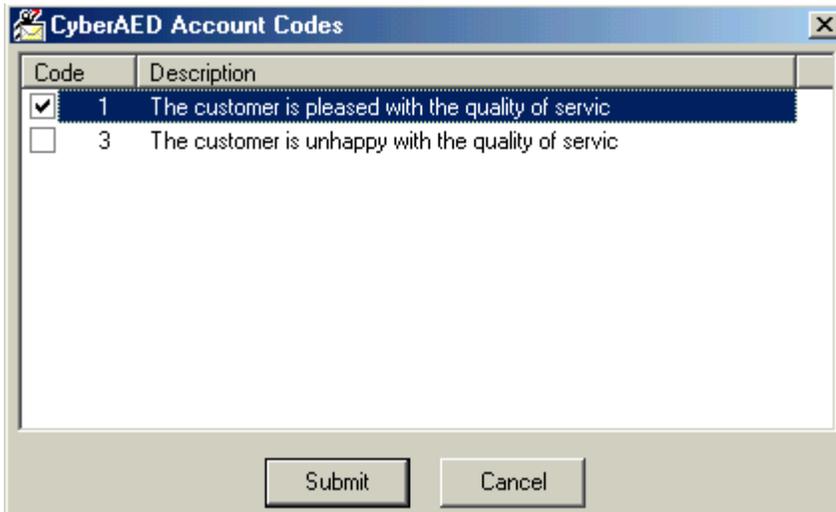
To hold an e-mail

If you cannot answer an e-mail immediately, you can hold it until you have the information required to answer it. You will still receive other e-mails while you are on hold. When you are ready to answer the e-mail, you select it, respond to it, and send it as you would a new e-mail.

- On the 6150 MCC e-mail window, click **Hold**.

The agent state will indicate that the agent is holding an e-mail. (See Figure 13- 40.)

Figure 13-40   Hold
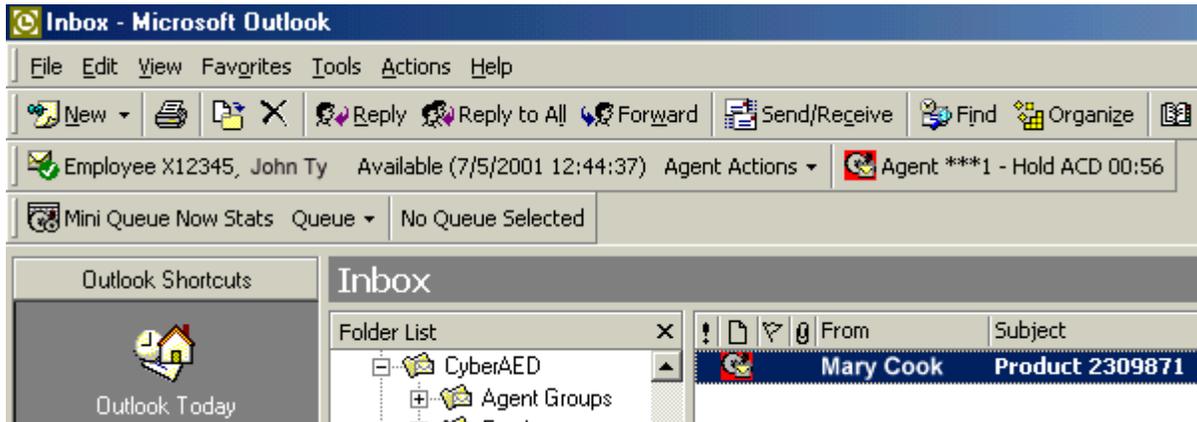
To transfer an e-mail

You can transfer an e-mail to an agent or to a queue.

1. On the 6150 MCC e-mail window, click **Transfer**.

The 6150 MCC Transfer window appears. (See Figure 13- 41).

2. Under **Transfer To**, select agent or queue.
3. Select the check box of the agent or queue to whom you are sending the e-mail.
4. Click **Transfer**.

Figure 13-41   6150 MCC Transfer window
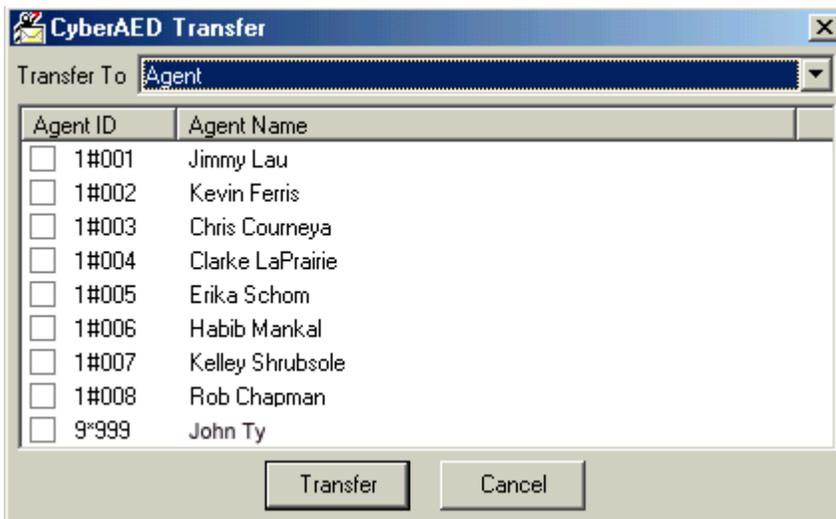
To set No Reply Needed

1. On the 6150 MCC e-mail window, click **No Reply Needed**.

The 6150 MCC Outlook Plugin window appears. (See Figure 13- 42.)

2. Click **Yes**.

Figure 13-42   6150 MCC Outlook Plugin
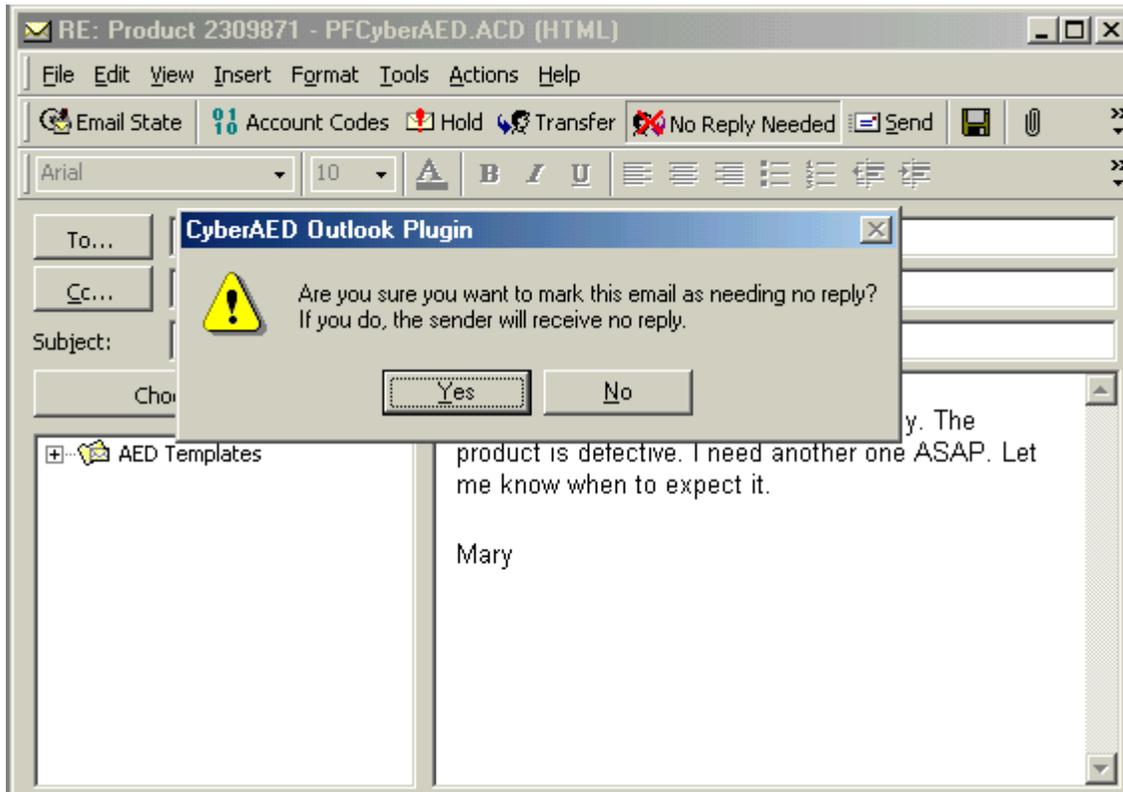
To send a reply

There is no reply button, you click send to reply to the customer.

•   On the 6150 MCC e-mail window, click **Send**.

Viewing e-mail history

You can view e-mail history with the 6150 MCC e-mail response window. (See Figure 13- 43.)

To view e-mail history

1. Click the **Client History** tab.

Figure 13-43 6150 MCC e-mail response window
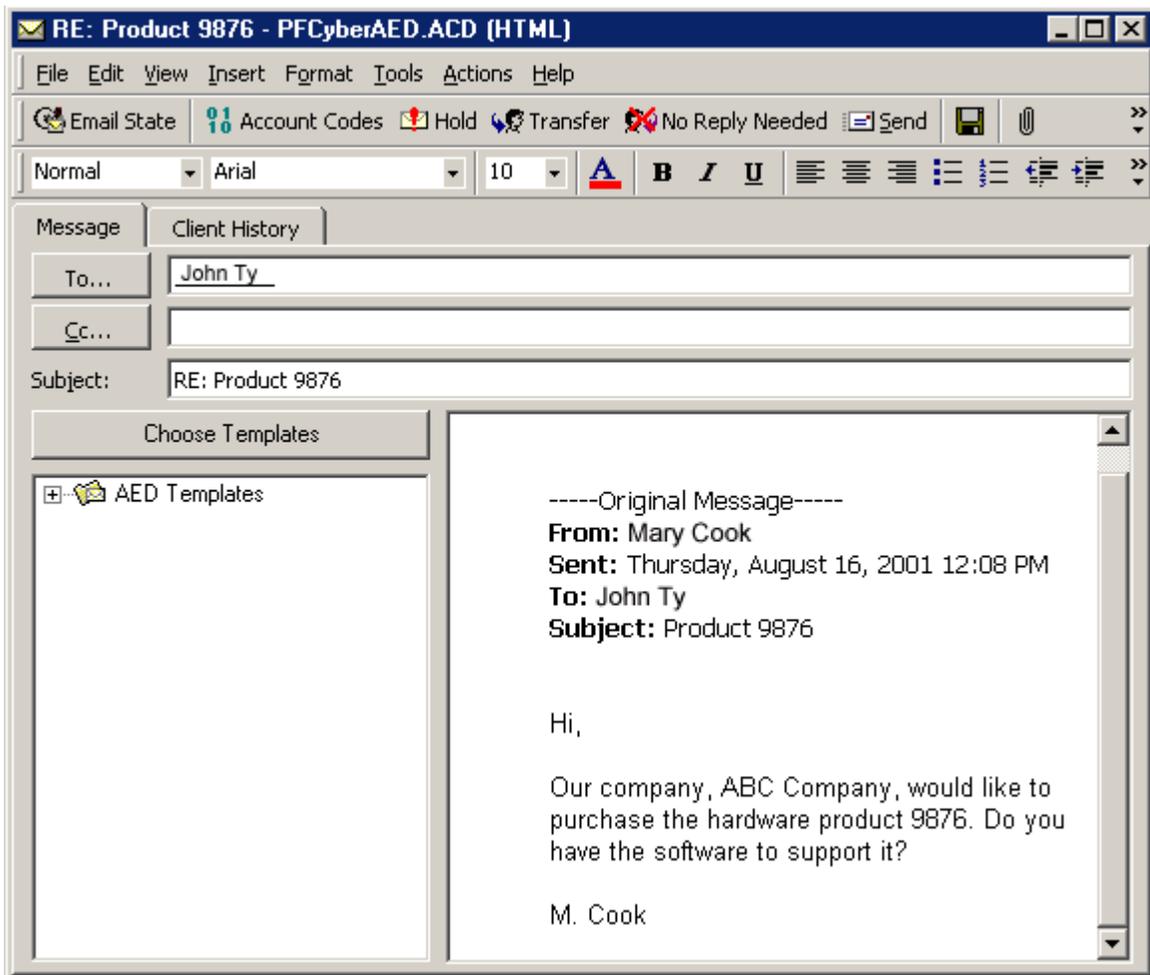
No history is currently displayed. (See Figure 13- 44.)

You must choose from four types of client history:

- Current case
  The current case consists of the e-mail currently in the Message window and all associated correspondence spawning from that particular e-mail.
- Entire history
  The entire history consists of all e-mails from that particular client and all the responses.
- Specific e-mail
  A specific e-mail that you request by inputing the message ID of that e-mail.
- Current e-mail
  The current e-mail is the e-mail currently in the Message window.

Figure 13-44 Client History tab
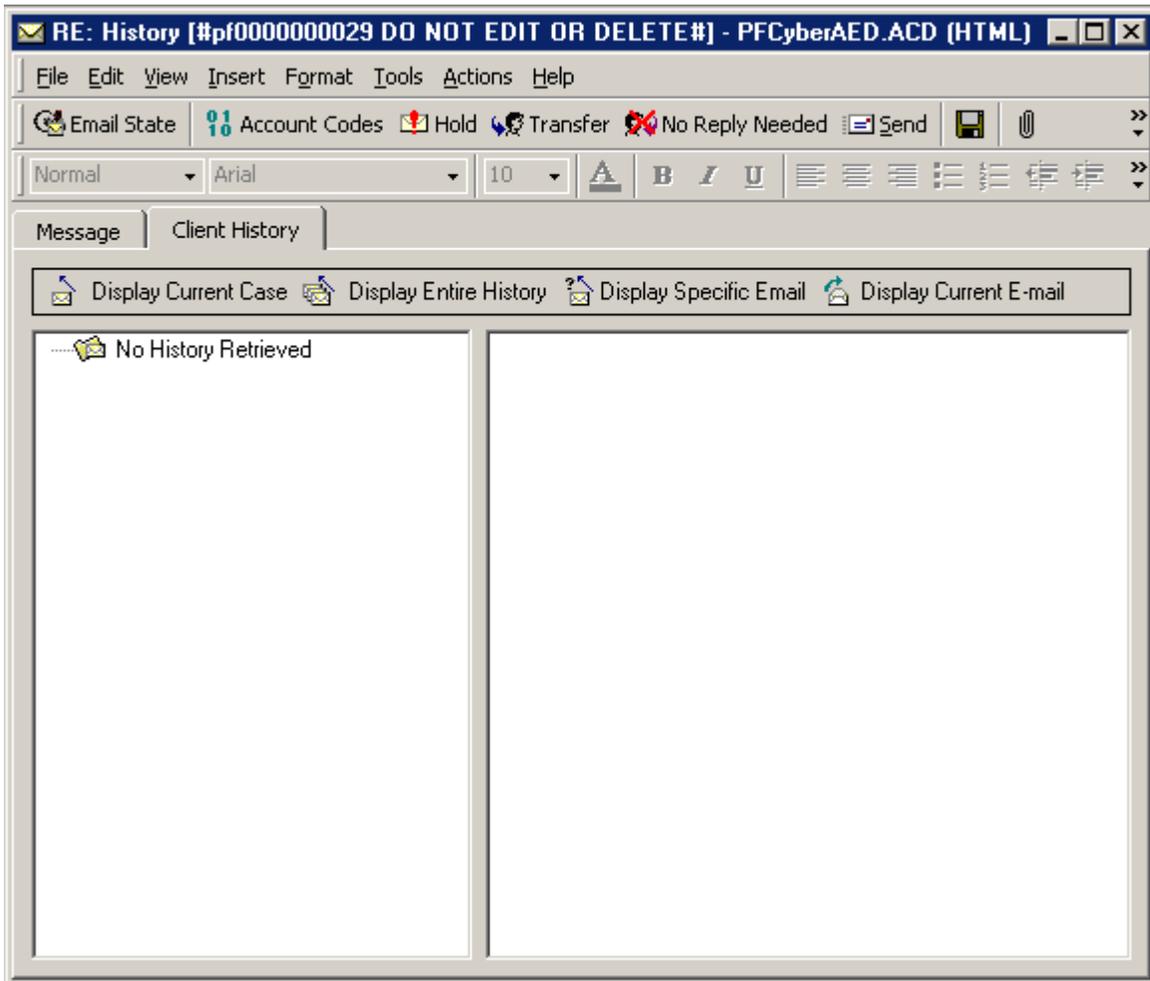
To view Current Case

1. Click **Display Current Case**.

The e-mail currently in the Message window, and all associated correspondence spawning from that e-mail, appears in the Client History window. (See Figure 13- 45.)

Figure 13-45 Display Current Case
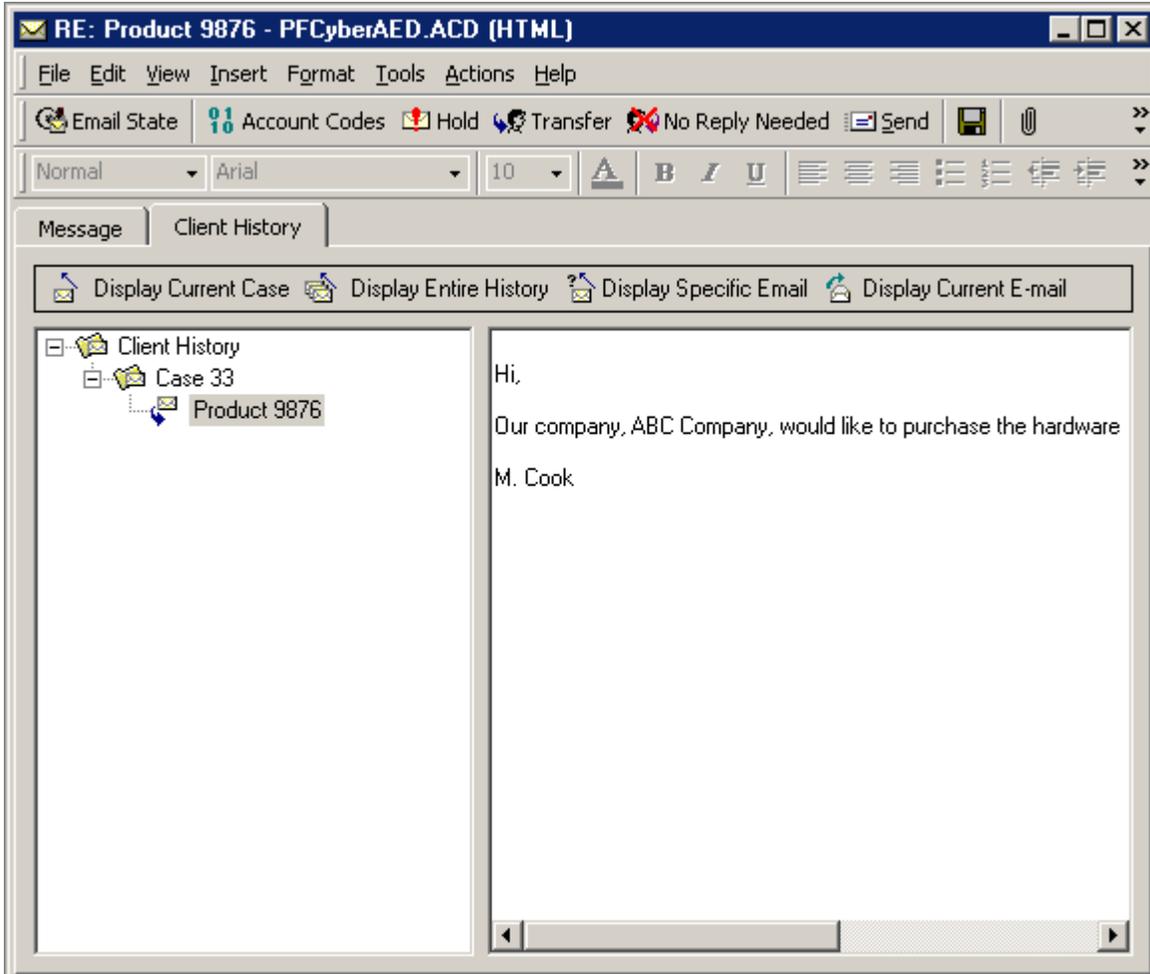
To view Entire History

1. Click **Display Entire History**.

All e-mails from that particular client and the responses appear in the Client History window. (See Figure 13- 46.)

Figure 13-46 Display Entire History
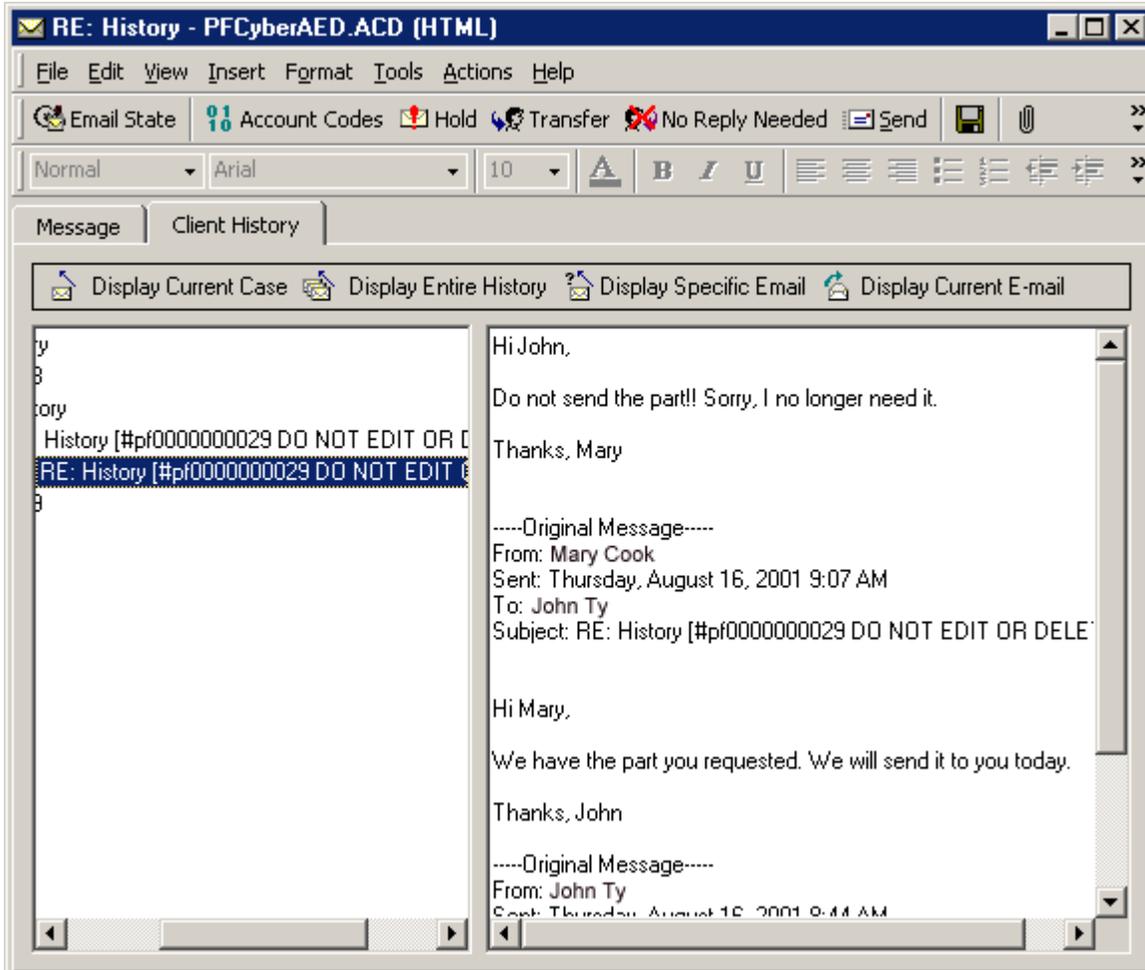
To view a Specific E-mail

1. Click **Display Specific E-mail**.

The Message ID box appears. (See Figure 13- 47.)

2. Type the 10 digit Message ID number of the message you want to view, preceded by pf. For example, type pf0000000029.
3. Click **OK**.

Figure 13-47 Display Specific E-mail: Message ID
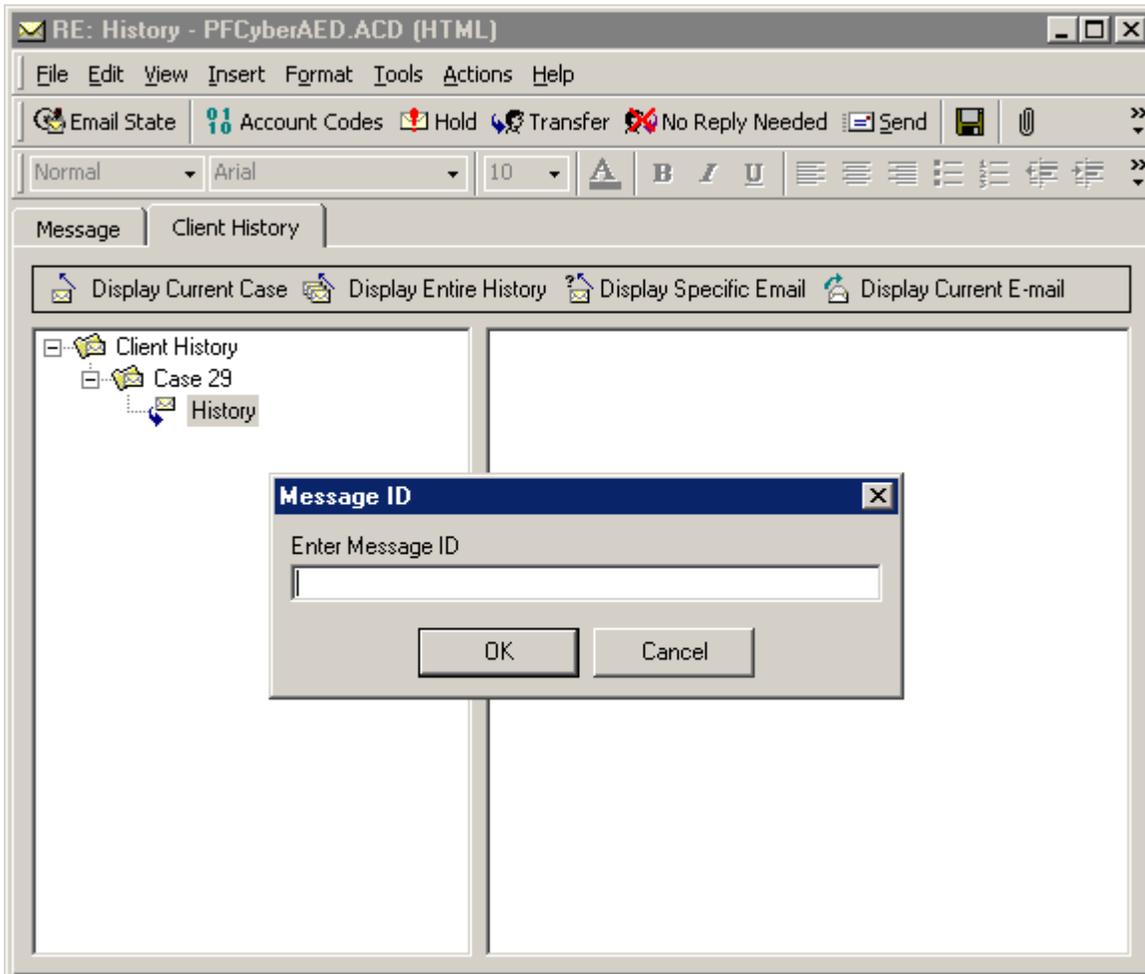
The specific e-mail that you requested appears in the Client History window. (See Figure 13- 49.)

Figure 13-49 Display Specific E-mail
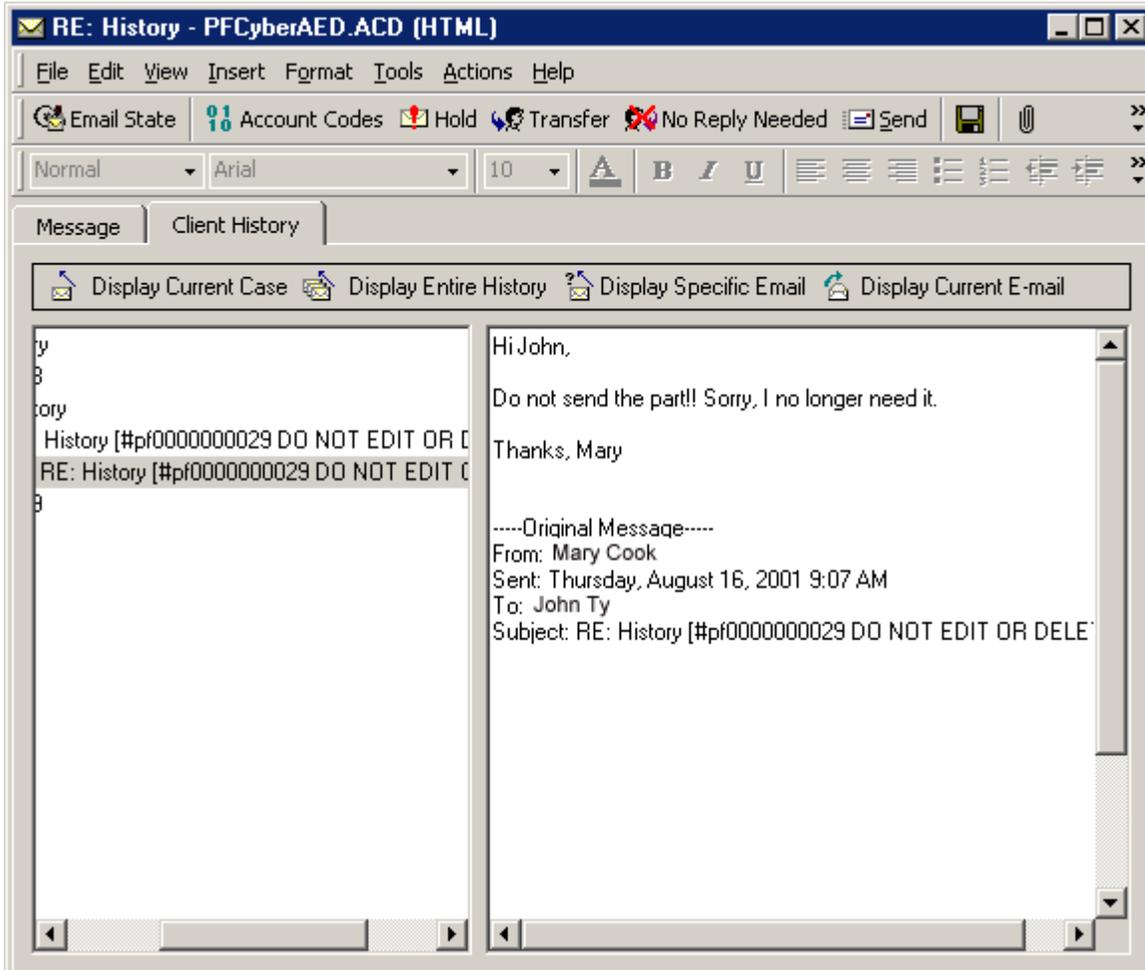
To view the Current E-mail

1. Click **Display Current E-mail**.

The e-mail currently in the Message window appears in the Client History window. (See Figure 13- 50.)

Figure 13-50 Display Current E-mail
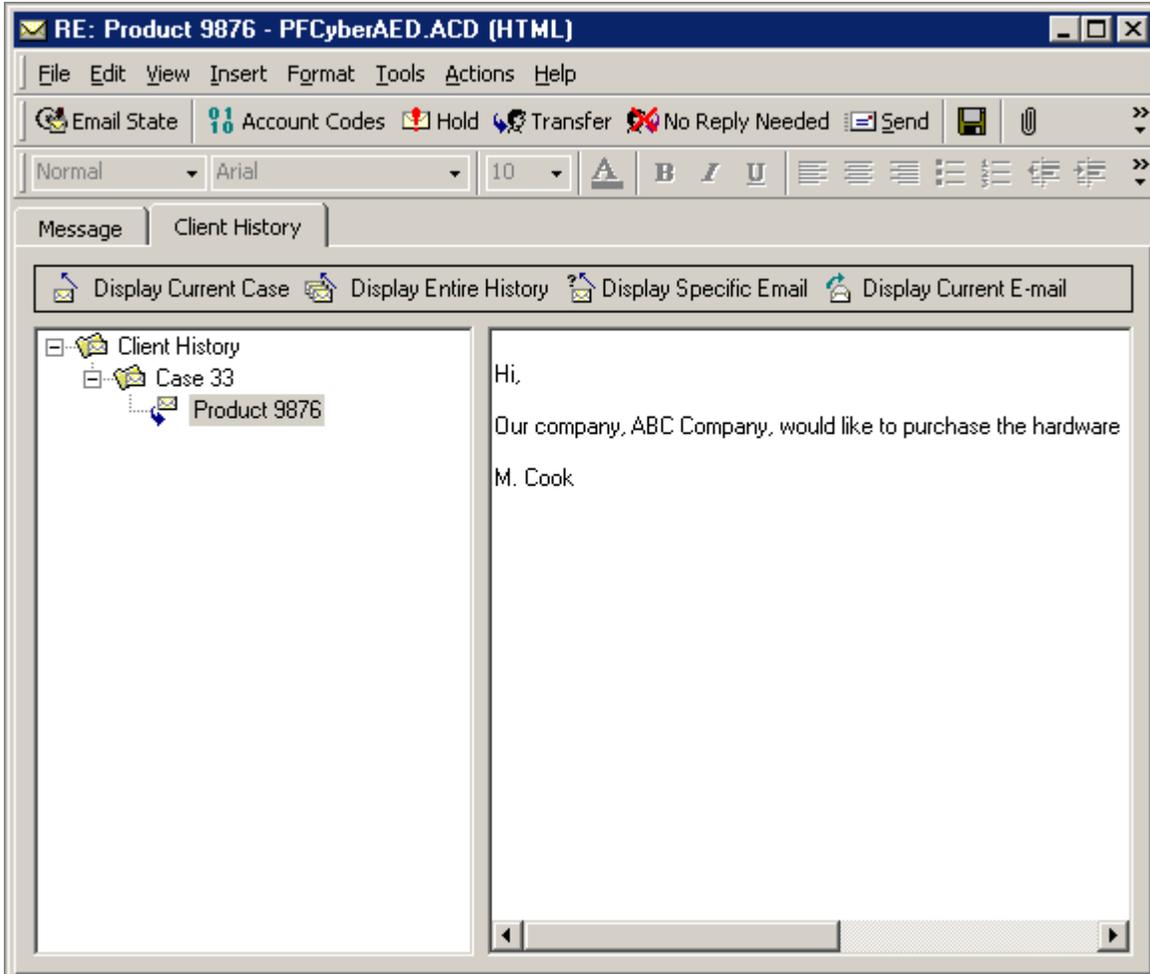
Creating and using a 6150 MCC template

You can create a template from a post in your personal inbox for use with each 6150 MCC queue you are assigned. This template is then used to frame your responses and should contain standard information. For example, the template should contain your name and your company's e-mail address.

To create a template

1. Open your personal inbox.
2. Right click your personal inbox and select **New Folder**.

The Create New Folder window appears. (See Figure 13- 51.)

3. Under **Name**, type **6150 MCC Templates**.
4. Click **OK**.

Figure 13-51   Create New Folder
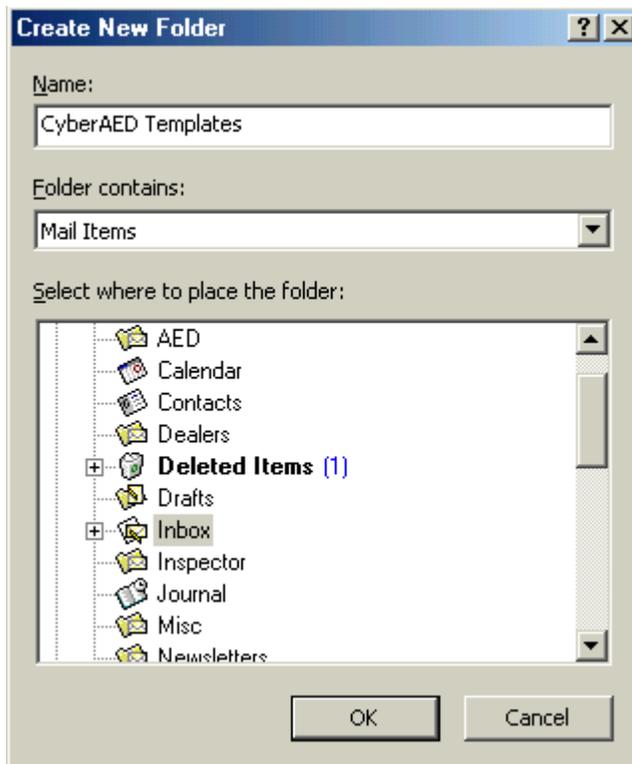
The 6150 MCC Templates folder appears under your personal inbox.

5. On the tool bar next to New, click the down arrow.
6. Select **Post in This Folder**.

The Untitled - Discussion window appears.

7. Under **Subject**, type the name of the queue for which you are creating the template. For example, type Support.

The name of the window changes to Support - Discussion. (See Figure 13- 52.)

8. Type standard information for this template. For example, label the template as a support response, then type your name, the company's name, and a greeting.
9. Click **Post**.

Figure 13-52   Support - Discussion window
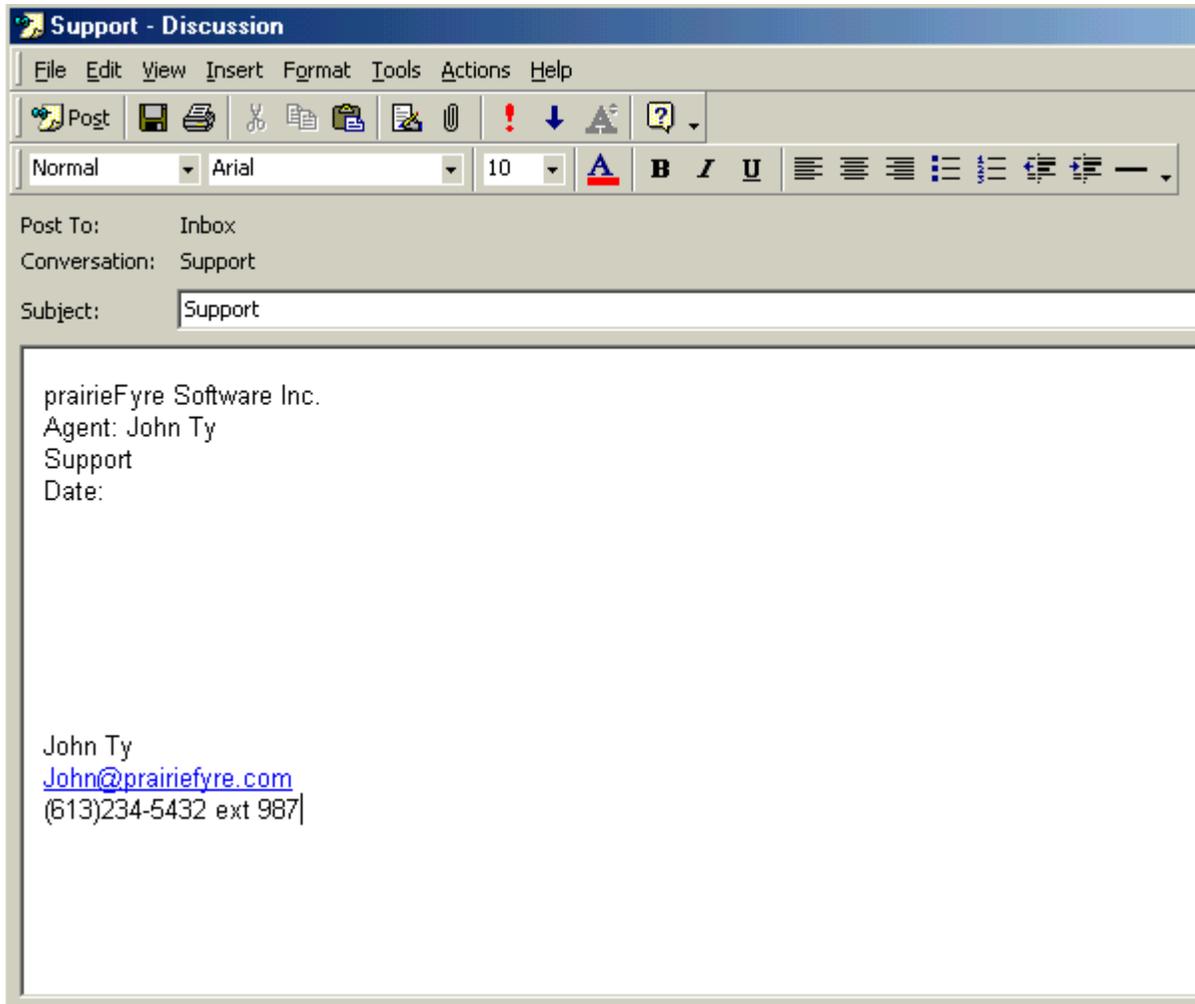
To use a 6150 MCC template

1. Open your 6150 MCC inbox.
2. Select an unanswered e-mail.

The 6150 MCC e-mail window appears. (See Figure 13- 53.)

3. Open **AED Templates**.
4. Open the template for the queue you are currently working in. For example, select the template labelled Support.

The 6150 MCC Support Templates information will be added above the e-mail request information.

5. Type your response to the e-mail in the support template.
6. Click **Send**.

Figure 13-53   6150 MCC e-mail window
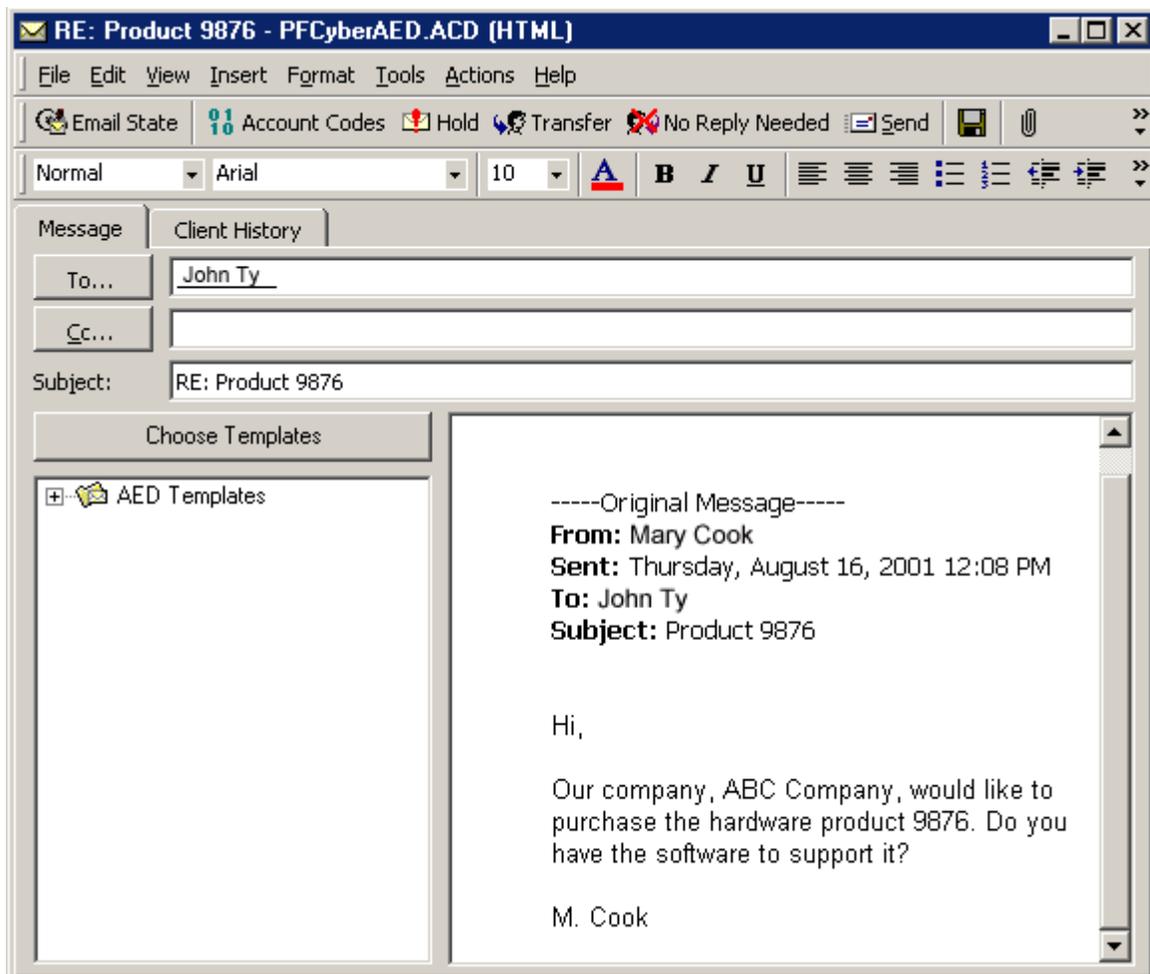
Viewing Mini Queue Now Stats

Mini Queue Now Stats provides information on the number of available agents, the number of e-mails waiting, and the length of time the oldest e-mail has been waiting. However, if you have AgentAdvisor (a component of 6110 CCM) you have access to much more detailed queue information.

To view Mini Queue Now Stats

1. On the **Inbox - Microsoft Outlook** window, click **Queue**.

The list of queues available appears. (See Figure 13- 54.)

2. Select the queue that you want to view.

Figure 13-54   Queues available
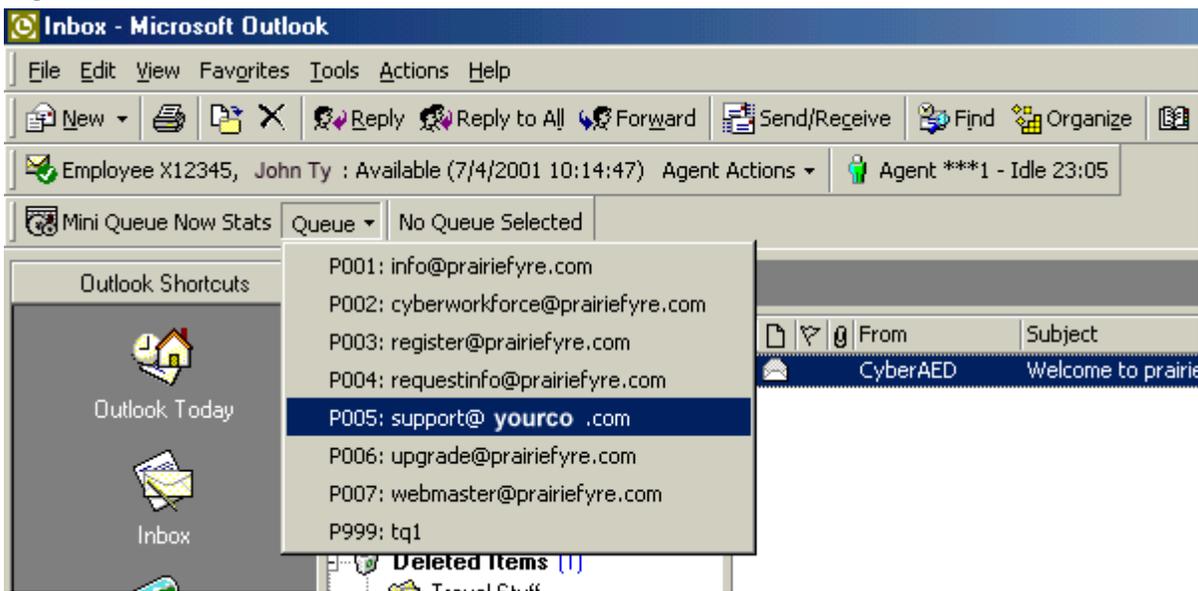
The statistics for support@prairiefyre.com can now be viewed. There are four agents available, there are no e-mails waiting, and the length of time the oldest e-mail has waited is zero seconds. (See Figure 13- 55.)

Figure 13-55   Support queue statistics
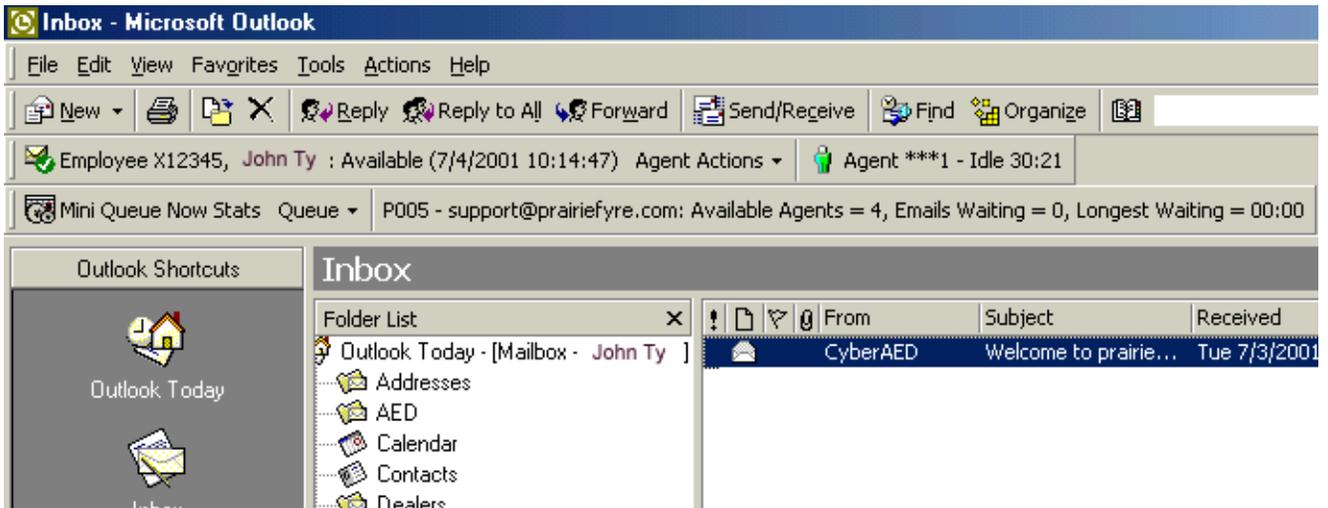
To view the repository

You can view each and every e-mail sent and the corresponding reply in the repository.

To view the original e-mails

1. In the **Folder List** of Outlook 2000, open **Repository**.
2. Click **Originals**.

The Originals window appears with the e-mails listed.

To view the e-mail replies

1. In the **Folder List** of Outlook 2000, open **Repository**.
2. Click **Replies**.

The Replies window appears with the e-mail replies listed.

Appendix A

6150 MCC Terminology

Enable External Interflow

The *enable external interflow* check box allows you to direct incoming e-mail to an e-mail address.

External Interflow Address

The *external interflow address* is the e-mail address the incoming e-mail is directed to.

Hold Requeue Timeout

The *hold requeue time* is the length of time the e-mail message will sit in the assigned agent's queue before a warning is flashed to indicate that the e-mail message will soon be reassigned to another agent's queue if not answered.

Interflow Queue

The *interflow queue* is the queue the e-mail message is directed to when it first arrives at a company's e-mail address.

Interflow Time

The *interflow* is the path along which the e-mail message is directed. The *interflow time* is the length of time the e-mail message will wait in the queue that the interflow directed it to. If the interflow timer expires, the call is removed from the original queue and re-directed to another answering point, such as a trunk. This ensures the e-mail message does not go unanswered for long.

Name

The *name* is the queue name. For example, the name might be Q1.

Node

The *node* is where 6150 MCC and 6110 CCM organizes and distributes e-mail and phone calls throughout your company. If your company is large, you might have several nodes.

Non Available Request Timeout

6150 MCC knows which agent answered which e-mail. If a customer has already received a response from an agent but has further questions, the customer's next e-mail is directed back to the original agent. However, that agent might not be available. The *non available request timeout* time is the length of time the e-mail will sit in the original agent's queue before being forwarded to another agent. If the non available request timeout is 60 minutes, and an e-mail is sent after office hours, then the e-mail would, of course, be forwarded to another agent.

Overflow Agent Group

The *overflow agent group* is the agent group that an e-mail message is forwarded to because the e-mail message was not answered by the primary agent group within a set period of time (the overflow time). The e-mail message is placed in the queue of the overflow agent group in addition to keeping its place in the first queue. The first available agent in either group answers the call.

If the e-mail message is not answered by overflow agent group1 within the overflow time, it is placed in the queue of overflow agent group 2 in addition to keeping its place in the first queue (primary agent group) and second queue (overflow agent group 1). There are three possible overflow agent groups: overflow agent group 1, overflow agent group 2, and overflow agent group 3.

Overflow Time

The *overflow time* is the length of time an e-mail will sit in the primary agent group queue before also being forwarded to a overflow agent group.

Primary Agent Group

The *primary agent group* is the group assigned to answer a particular e-mail message first.

Priority

Priority assigns priority to queues. The highest priority is 1, and the lowest priority is 10. This allows you to answer queues of higher priority first.

Public Folder Name

The *public folder name* is the windows user name.

Public Mail Address

The *public mail address* is the company e-mail address. This is the address the customers will use to e-mail you.

Reporting Number (for a queue)

The *reporting number* is assigned for reporting purposes. This report number is referenced when creating a report about e-mail data from a particular queue. A queue reporting number must start with P and have three digits following. For example, the reporting number for a queue might be P123.

Requeued Time

The *requeue time* is the length of time the e-mail will sit in the assigned agent's queue before it is assigned to another agent's queue.

When an agent receives an e-mail message and fails to respond to the e-mail after X seconds, 6150 MCC places the agent in Make Busy and the e-mail message is *requeued* (placed back in queue). This requeued e-mail message has priority over the others and will be the next e-mail message answered.

Response Message

The *response message* is a message that is automatically sent to the client upon receipt of the clients e-mail. For example, "Thank you for your interest in prairieFyre Software. We have received your e-mail, and it is being handled by one of our agents. Please expect a reply shortly." The response message is created with the Responses tab.

Service Level

The term service level is total number of calls which are answered, abandoned, and interflowed before a defined threshold time (Service Level Time), compared to the total number of calls answered, abandoned, and interflowed. It's the average length of time a caller who has obtained a trunk waits for an available agent. The service level = (Calls Answered + Long Calls Abandoned + Long Interflow) within the Service Level Time ÷ (Calls Answered + Long Calls Abandoned + Long Interflow).

Service Level Percent

The service level percent is the proportion of calls, expressed as a percentage, which are answered, abandoned, and interflowed within a defined threshold time compared to the total number of calls answered or abandoned (after the short abandon time).

Service Level Time

The service level time is the threshold time used in calculating the service level percentage, such as 90 percent of calls answered in 20 seconds. The service level percentage and service level time are parameters you define as your service objective.

Glossary

This User Tutorial includes the following terms.

Agent Load

The *agent load* includes the time the agent spends talking to the caller (talk time) plus wrap up time.

Answered By

The *answered by* statistic is a count of all calls answered by the first, second, third, and forth answer points.

Answer Percent

The term *answer percent* refers to the Calls Answered compared to the Calls Offered.

ACD

An *Automatic Call Distributor* (ACD) is a specialized telephone system application for distributing incoming calls. ACDs are programmed to process calls in a pre-defined order, queue calls, provide in-queue messaging, and report on real-time and historical activities.

ANI

Automatic Number Identification (ANI) is a technology that identifies telephone numbers of callers to your call center, so agents can receive a screen pop along with the call. Connecting a database to your telephone system allows the caller information and call to be sent simultaneously.

ASA

The *average speed of answer* (ASA) is an ACD statistic that measures how long the average caller waits on hold before his or her call is picked up by an agent.

Average Abandon Time

The *average abandon time* is the average number of seconds callers wait in queue before they abandon a call.

Average Talk Time

The *average talk time* is the average time agents spent talking to callers during a given time interval; it is the total average call duration plus any wrap up time you add.

Blocked Call

A *blocked call* is a call that does not get through to the system because no trunks are available; the caller receives a busy signal.

Busy Hour Traffic

The *Busy hour traffic*, measured in Erlangs, is the number of hours of call traffic (or trunk traffic) there are during your busiest hour of operation. It is important that your busy hour Figure represent the busiest call load your trunks will ever be offered, and not just today's peak traffic. The busy hour traffic = (*average call duration+ average delay*) *x calls per hour ÷ 3600*. This value represents the total trunk load (occupancy) in hours.

Call Load

The term *call load* refers to the aggregate effect of the number of calls received by the ACD queue and their duration, or the *calls offered multiplied by the (average talk time plus average wrap up time)*.

Call Routing

Call *routing refers* to the set of instructions programmed in the switch that automate the movement of calls to their intended answering points.

Call Volume See *Calls Offered*

Calls Abandoned

An *abandoned call* is a call that does not reach an agent because the caller hung up.

Calls Abandoned Paramater

The Calls Abandoned Parameter specifies the value which determines whether a call is a Short Abandoned Call or a Long Abandoned Call. If the abandon time is less than the Call Abandoned Parameter, then it is a Short Abandoned Call. If the abandon time is more than the Call Abandoned Parameter, then it is a Long Abandoned Call.

You assign the Calls Abandoned Parameter (called the Queue Short Abandon Time) values to ACD queues in the YourSite Database.

Callers can abandon after they reach a trunk (before they reach the ACD queue) or while they are in queue waiting for an available agent (either before or after the short abandon time you specify).

Calls Abandoned (Short)

The Call Abandoned (Short) calls abandon with an abandon time less than the Call Abandoned Parameter. These abandoned calls are not included in the call statistics.

Calls Abandoned (Long)

The Call Abandoned (Long) calls abandon with an abandon time greater than the Call Abandoned Parameter. These abandoned called are included in call statistics.

Calls Answered

An *answered call* is a call picked up by a live agent. Calls that listen to inqueue RAD messages are not considered to be answered until an agent connects.

Calls Interflowed

The term *interflow* refers to a mechanism that directs a queue-delayed call to voice mail or to another answering point. If the interflow timer expires, the call is removed from the ACD queue and re-directed to yet another answering point, usually another voice mail box. The *interflow time* runs independently of the overflow time.

Short Calls Interflowed

If, when the Interflow call is compared to the Calls Abandoned Parameter, the duration of the call is less than the parameter, it is considered a Short Call Interflowed. A Short Call Interflow is considered to be a Path Unavailable Call.

Long Calls Interflowed

If, when the Interflow call is compared to the Calls Abandoned Parameter, the duration of the call is more than the parameter, it is considered a Long Call Interflowed.

Calls Offered

All calls received by the ACD queue, regardless of how they are handled or routed, are referred to as the *calls offered*. This includes Calls Answered, Long Interflowed Calls, and Long Abandoned Calls. Calls Requeued, Path Unavailable Calls, Short Abandoned Calls and Short Interflowed Calls are not considered. Telephone system data on the calls offered and average talk time is used by the Erlang C equation in calculating the agents required.

Calls Requeued

When an agent receives an ACD call and fails to pick up the call after X seconds or X rings, the telephone system places the agent in Make Busy. The telephone system *requeues* the call (places the call back in the same queue) and offers it to the next available agent.

Calls Waiting

The *calls waiting* is the number of callers queued up waiting for an agent to become available, including those listening to silence, music, or a recorded announcement.

CO

The local *Central Office* (CO) or telephone exchange connects subscribers' telephone lines to switching equipment. This allows long distance and local subscribers to connect to one another.

CTI

Computer telephony integration (CTI) is the merging of computer technology with telephone systems. Today's PC-based telephone systems allow you to deliver synchronized voice and data delivery, voice and data conferencing, automatic information retrieval for calls, caller-based messaging and routing, and desktop productivity tools.

Delayed Call

A *delayed call* is a call placed in the *ACD queue* because it can not be immediately answered by an agent. The ACD queue allows the caller to wait for an available agent rather than being blocked from entering the system.

Dialable Number

The term *dialable number* refers to the digit or series of digits a caller dials to reach an agent at an extension, an ACD Queue, voice mail, or some other answering point.

DNIS

Dialed Number Identification Service (DNIS) is a feature of toll-free lines that provides the number the caller dials. This assists agents who answer calls for more than one business or product line. Each business or product line has its own toll-free number. When a toll-free number is dialed, the telephone system forwards information to the agent allowing him/her to identify who the caller dialed.

DND

The term *do not disturb* (DND) refers to an agent state in which the agent disables his/her extension to prevent any calls from being routed there.

Erlang

An *Erlang* measures telephone traffic, or the flow of calls and call attempts to your call center during a given period of time. One Erlang equals one hour or 60 x 60 = 3,600 seconds of telephone conversation. This could be one call lasting 1 hour, six calls lasting 10 minutes, or any combination of calls and call durations which equal 60 minutes. The Erlang series of formulae provide a mathematical basis for making predictions about randomly arriving workloads.

Erlang C

Erlang C was developed in 1917 by A.K. Erlang, a Danish engineer who worked for the Copenhagen Telephone Company. The Erlang C equation is commonly used for agent and delay calculations where ACD queueing is involved. It predicts the resources required to keep wait (delay) times within your service level objective. The Erlang C formula uses your historical call load data and the service level percentage, service level time, and wrap up time you specify and predicts the agent requirement for the time interval and date range in the forecast.

Extension

An *extension* is an answering point for a call. A caller to your center is presented with options to dial various answering points. The caller can dial an individual agent at an extension through a queue number (address mechanism for a queue or other answering point).

Grade of Service

The *grade of service* (GOS) relates the number of trunks to the level of traffic, and indicates the likelihood an attempted call will receive a busy signal. The Grade of Service (GOS) is expressed as a decimal fraction. A GOS of P.02 means that a caller has a two percent chance of receiving a busy signal.

Inbound

The term *inbound* refers to incoming calls to your call center.

LAN

The *Local Area Network* (LAN) connects multiple computers together over short distances. LANs typically operate within a building. The computers share information, applications, and peripherals, such as printers.

Logged On

An agent is *logged on* when they sign in to the ACD system. The agent may or may not be ready to receive calls.

Logged Off

An agent is *logged off* when he or she signs out of the call center.

Longest Waiting

The *longest waiting* is the duration, in minutes and seconds, of the call that has been waiting the longest in queue.

Make Busy

The term *make busy* refers to an agent state in which the agent removes him/herself from the ACD queue. While in make busy, the agent does not receive any ACD queue calls, but can receive calls dialed directly to his or her extension.

MIS

The term *Management Information System* (MIS) refers to the manipulation or processing of data produced by the telephone system. The MIS database uses telephone system records to provide forecasting, real-time monitoring, and reporting functions.

On ACD

An agent is *on ACD* when he or she is involved in an ACD call.

On Non ACD

An agent is *on non-ACD* when he or she is currently involved in an incoming non-ACD call or an agent originated call.

Overflow

The term *overflow* refers to a mechanism that limits the delay faced by callers by queuing calls against two or more agent groups. An ACD call that can not be answered immediately is placed in an ACD queue. If the call is not answered after a set amount of time (the *overflow time*), it is placed in the ACD queue of another agent group, in addition to keeping its place in the first queue. The first available agent in either group answers the call.

Path Unavailable

A call that cannot be routed because the path (queue) is unavailable. Reasons the path might be unavailable are: no agent is logged on, or all agents are in Do Not Disturb.

The term *unavailable* refers to a report field that collates all instances where an agent goes into make busy, wrap up, and Do Not Disturb (DND) during a work shift.

Pooling Principle

The term *Pooling Principle* refers to a consolidation of resources that allows the same number of call center agents to handle *more* calls while maintaining service levels. The Pooling Principle also applies when determining the number of call centers required, and how they are networked across time zones in your ACD enterprise.

Probability of Delay

The *probability of delay* is the likelihood a call will be delayed in the ACD queue. It relates the number of agents/extensions compared to the level of traffic carried by the trunks and indicates the likelihood and amount of delay experienced.

PSTN

The *Public Switched Telephone Network* (PSTN) is a global collection of CO's interconnected by long distance telephone switching systems

Quality of Service

The *quality of service* reflects an agent's ability to provide excellent assistance to each customer.

Queue Number

A *queue number* is an address mechanism for a queue or other answering point. The programming associated with the queue number defines the routing and timing options available to the call.

Readerboard see *Wall Board*

Real-Time Adherence

The term *real-time adherence* describes whether or not agents are performing activities they are schedule to be doing. Workforce management tools keep supervisors informed of discrepancies between agents' work schedules and the actual activities they perform.

Recorded Announcement Device

A *Recorded Announcement Device* (RAD) is a system that provides prerecorded messages to callers waiting in the ACD queue.

Reporting Number

The term *reporting number* refers to the number assigned to call center resources, such as agents, and to devices, such as ACD queues, for reporting purposes.

Service Level

The *service level* is the total number of calls which are answered, abandoned, and interflowed *before a defined threshold time (Service Level Time)*, compared to the total number of calls answered, abandoned, and interflowed. It's the average length of time a caller who has obtained a trunk waits for an available agent. The service level = (Calls Answered + Long Calls Abandoned + Long Interflow) within the Service Level Time ÷ (Calls Answered + Long Calls Abandoned + Long Interflow).

Service Level Percent

The *service level percent* is the proportion of calls, expressed as a percentage, which are answered, abandoned, and interflowed within a defined threshold time compared to the total number of calls answered or abandoned (after the short abandon time).

Service Level Time

The *service level time* is the threshold time used in calculating the service level percentage, such as 90 percent of calls answered in 20 seconds. The service level percentage and service level time are parameters you define as your service objective.

Silent Monitoring

Silent monitoring refers to the process of capturing the voice conversations between agents and callers. Silent monitoring systems allow you to track call handling techniques and determine where improvements can be made in individual performance. They complement ACD statistics by providing a snapshot of both quality and productivity in your call center.

SQL

Structured Query Language (SQL) is the language used to talk to popular Relational Database Management Systems (RDBMSs). SQL is a standard query language that can be used to enter, query, and change data in a database. SQL is also used to create and administer databases. Administration of YourSite is done using Microsoft's SQL Server, a database management system.

Support Systems

Support systems are information products and technologies that allow agents to provide prompt and complete information to callers. They provide agents with immediate online access to a customer's records and case history, products and services, and company policies and procedures.

Talk Time

The *talk time* is the time the caller is connected to an agent.

TCP-IP

Transmission Control Protocol-Internet Protocol (TCP-IP) is the basic communication language (protocol) of the Internet, and is used as a communications protocol in private networks (intranets). When you are set up with direct access to the Internet, you are provided with a copy of the TCP-IP program. Other computers that you may get information from also have a copy of TCP-IP.

Telephone System

The term *telephone system* refers to the business telephone switch or Private Branch Exchange (PBX) used to process incoming and outgoing calls to your call center.

Time Stamp

The term *time stamp* refers to the time collated queue statistics were last updated by the telephone system.

Trunk Load

The *trunk load* includes the time from when a trunk picks up a call until the agent finishes speaking to the caller and disconnects. The trunk load does not include wrap up time.

Unavailable *see Path Unavailable*

Wall Board

A *wall board* is a large electronic sign placed on the wall of a call center. Wall boards provide real-time ACD statistics to agents and supervisors, such as the number of calls in queue, the wait time of the longest waiting caller, and the number of available agents.

WAN

Wide Area Networks (WANs) connect computers across wide geographic areas. WANs operate over telephone carrier lines through bridges or routers. Router options enable communication between high speed LAN links and slower speed WAN links (that tie LAN segments together).

Workforce Management

Workforce management is the forecasting and scheduling of agents. Some workforce management systems use telephone system data to monitor the real-time adherence of agents to scheduled activities, so you to know how many agents are currently logged in and available to answer calls.

Wrap Up Time

The *wrap up time* is the time the agent spends completing transactions associated with a call after he or she hangs up. The wrap up time is a standardized period of time during which an agent is not available to receive calls. If an agent requires additional time to complete paperwork or online transactions, the agent can remove him/herself from the ACD queue temporarily for this purpose.

Index