

Nortel Workforce Management

# Administration Guide

NN44480-600

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# New in this release

The following sections detail what's new in *Nortel Workforce Management Administration Guide* (NN44480-600) for Release 7.0.


- "Features" (page 9)
- "Other changes" (page 9)


## Features

There are no feature changes for this document.

## Other changes

Nonessential graphics have been removed from procedures.



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# Introduction

This guide is intended for use by Workforce Management administrators. It guides you through the steps to configure and manage the software.

> ***Note:*** For information on installing any of the Workforce Management components discussed in this guide, please consult the online documentation available through Nortel's Support site: http://support.nortel.com/

Please note that this document is intended primarily for viewing on-line. However, the format of the document is based on that of a printed manual, to support customers who print all or portions of the document. For similar reasons, entries in the Table of Contents, cross references, and index entries refer to page numbers. Those same entries function as hyperlinks for ease of use when the document is viewed electronically.

> ***Note:*** Colors may not print legibly on black and white printers. If you are using a non-color printer, make sure to select the option to print colors as black.

In addition, please note that the screen shots used in this guide are for illustrative purposes only. There may be some differences between what you see in the product and these screenshots, but those differences should not be significant or affect the accuracy of the information contained in this guide.

This introductory section to the guide provides information on:


- "User Guide Content Overview" (page 12)
- "Intended Audience for This Guide" (page 13)
- "Conventions Used in This Guide" (page 13)
- "Customer support" (page 14)




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## User Guide Content Overview

This guide consists of the following chapters:

- "Workforce Management Overview" (page 17)—describes the various solution packages that include Workforce Management and the high-level architecture of Workforce Management.
- "Navigating in Workforce Management" (page 35)—describes information vital to all components of the Workforce Optimization Solution, including how to log on, navigate, set preferences, get help, and log out.
- "Working with Roles and Privileges" (page 59)—describes the default roles in Workforce Management, typical privilege sets, and how to create, edit, and delete roles.
- "Managing Organizations" (page 65)—provides information about setting up organizations and organization-related components of Workforce Management, including groups, queues, and activities.
- "People Administration" (page 89)—provides information on viewing employee information, and assigning user names, passwords, and access rights.
- "Working with Adherence" (page 105)—describes adherence set-up, including mapping agents to data sources, creating and editing reason codes, mapping reason codes to activities, selecting alternative activities for adherence mapping, and viewing adherence.
- "Managing Time Off" (page 117)"—describes the various components needed to configure Time Off Management for your organization, including configuring time-off settings, setting time-off request validation rules, setting time-off request filing rules, configuring auto processing, setting organizations' time-off parameters, and managing time-off requests.
- "Managing Shift Swapping" (page 139)—describes how to configure shift-swap settings for your organization, and how to manage shift-swap requests.
- "Managing Shift Bidding" (page 151)—describes how to configure the optional shift-bidding settings for your organization, including setting shift-bidding request validation rules, setting shift-bidding request filing rules, configuring auto processing, managing shift-bid auctions, and managing shift-bidding requests.
- "Managing Alert Rules" (page 179)—provides information on creating and editing alert rules, which are used to specify those events in Workforce Management that generate alerts to specified users.



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- "Managing Volumes" (page 199)—provides information on managing workload volumes and tracking workload history. This information is only relevant if you are licensed for Operations.
- "Administering Reports" (page 213)—describes the administration of Workforce Management's reports.
- "Using the System Module" (page 219)—describes those functions in the module that have not already been covered previously, including data source groups, skill mapping, managing Integration Server, system message logging, configuring alerts, managing your license information, and general system configuration parameters.
- "Configuring Training Mode" (page 269)—how to access the training database, the information contained in it, and how to reset any information changed during training back to its original state.
- "Using Integration Server Integration Packages" (page 273)—describes the primary predefined integration packages and how to use them.
- "Administering Forecasting and Scheduling" (page 289)—how to use the Forecasting and Scheduling User Manager and Settings module to create a secure working environment and configure Forecasting and Scheduling for your call center.

In addition to the above, this guide also contains:

- a "Glossary" (page 321)— describes various industry terms used in this manual and the products which it describes.

## Intended Audience for This Guide

This guide is designed to be used by administrators of the Workforce Management suite. Users are expected to be experienced in working with contact center equipment and software applications as well as PC workstation hardware and software.

## Conventions Used in This Guide

The following table highlights conventions used to describe user interaction, as well as special notations used in this document.

| Area | Description |
|---|---|
| Menu Items | Menu items are highlighted in bold as in the following example:<br><br>From the menu, choose **File > Preferences > Options**. |



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| Area | Description |
|---|---|
| Document Names | Other Nortel documents are referred to using italics.<br><br>For example: Refer to the *Nortel Workforce Management Administration Guide* for more information. |
| Buttons, Functions, and Dialog Box and Window Names | Specific button or function names are highlighted in bold. The following example shows how a button and dialog name are referred to in the documentation:<br><br>Click **OK**, and then choose the **Restore Database** dialog box. |
| User Variables | When the user is expected to type a value, the name of the variable to be replaced is surrounded by < > . The following are examples:<br><br>**<Your ER Server Name>**<br><br>The notation **<Your ER Server Name>** refers to the name of your Enterprise Reporting server.<br><br>When you see this notation, replace it with the actual name of your Enterprise Reporting server. |

# Customer support

This section explains how to get help for Nortel products and services.

## Finding the latest updates on the Nortel Web site

The content of this documentation was current at the time the product was released. To check for updates to the latest documentation, go to www.nortel.com/documentation.

## Getting help from the Nortel Web site

The best way to get technical support for Nortel products is from the Nortel Technical Support web site:

www.nortel.com

This site provides quick access to software, documentation, bulletins, and tools to address issues with Nortel products.

- download software, documentation, and product bulletins
- search the Technical Support web site and the Nortel Knowledge Base for answers to technical issues
- sign up for automatic notification of new software and documentation for Nortel equipment
- open and manage technical support cases



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### Getting help over the phone from a Nortel Solutions Center

If you do not find the information you require on the Nortel Technical Support web site, and have a Nortel support contract, you can also get help over the phone from a Nortel Solutions Center.

In North America, call 1-800-4Nortel (1-800-466-7835). Outside North America, go to the following web site to obtain the phone number for your region:

www.nortel.com/callus

### Getting help from a specialist by using an Express Routing Code

To access some Nortel Technical Solutions Centers, you can use an Express Routing Code (ERC) to quickly route your call to a specialist in your Nortel product or service. To locate the ERC for your product or service, go to:

www.nortel.com/erc

### Getting help through a Nortel distributor or reseller

If you purchased a service contract for your Nortel product from a distributor or authorized reseller, contact the technical support staff for that distributor or reseller.



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# Workforce Management Overview

This chapter describes the various solution packages that include Workforce Management and the high-level architecture of Workforce Management.

## Solution Packages

To meet the needs of a broad spectrum of enterprises, the Workforce Management portion of the Workforce Optimization Solution is available in pre-packaged solutions that deliver different levels of functionality.

The *Operational Series Workforce Management Package* is comprised of functionality designed to optimize agent performance, reduce risk, and automate manual processes such as forecasting and scheduling. It includes:

- Forecasting and Scheduling—Client software used for daily and weekly forecasting and scheduling.
- Web-Enabled Self-Service—A standard, web-based interface module for agents, supervisors, and administrators.
- Advanced Adherence—Real-time agent adherence tracking, adherence management capabilities for monitoring adherence to schedule for deferred media, including aux codes and non-phone-based activities, as well as enabling management of adherence exceptions.
- Basic Scorecards—Pre-defined role-appropriate scorecards with pre-packaged Workforce Management and Quality Key Performance Indicators (KPIs), which display actual performance information on a daily basis.

Our *Advanced Series Workforce Management Package* builds on the Operational Series' functionality, and focuses on optimizing enterprise performance by raising first call resolution rates, increasing enterprise revenue generation, and ensuring consistent customer experiences.

In addition to those functions included in the Operational Series, the Advanced Series includes:

- Time Off Management (TOM)—A web-based module allowing agents to request and supervisors to manage agents' time-off and vacation requests.



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***Note:*** This module is also an option for the Operational Series.

- Advanced Scorecards—A superset of the scorecards found in Basic Scorecards, as well as the ability to display trend information compared to goals.

  ***Note:*** An even deeper level of functionality for Scorecards is provided with KPI Design, which provides users with the ability to define additional data sources types, source measures, KPIs, and to connect custom adapters from these additional data sources.

- Strategic Planner—Allows you to plan long term for multi-skilled contact center and enterprise back-office environments, assess the operational and financial benefits and impacts of different scenarios before making decisions, increase forecasting accuracy with sophisticated analysis of historical data, plan your resources to reflect projected customer demand and corporate objectives, develop optimal staffing plans that minimize costs while meeting service goals, and provide executives with the information they need to review and rapidly approve budgets and plans.

The *Strategic Series Workforce Management Package* builds on the Advanced Series' functionality.

In addition to those functions included in the Advanced Series, the Strategic Series includes:

- Learning Lesson Management—Enables agents and supervisors to access on-demand learning, to enhance their skills, and to increase their productivity and performance.
- Content Producer—an application comprised of editing, authoring, and conversion tools to develop interactive clips for internal training and assessment.

Optional functions for the above packages include among other functions:

- Multi-Contact—Enables forecasting and scheduling for additional media other than phone, such as chat, e-mail, etc.
- Shift Bidding—A web-based module facilitating automated shift bidding.
- Multi Week—Enables you to schedule over a multi-week period rather than one week at a time.
- Operations—Allows volume control and workload management, particularly with the financial services arena.
- Projects—Nominally part of the Multi-Contact functions, this separately licensed feature expands the solution's functionality to meet the needs



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of non-customer-facing activities in the financial services and banking arenas.

- Queue Hopping—Allows you to schedule agents to work on different queues at different times.

The *Performance Management Series Workforce Management Package* is similar to the Advanced Series Workforce Management Package. It includes:

- Strategic Planner
- Volume Capture (part of the Operations functions mentioned above)
- Pulse
- Alerts
- Standard reports
- Ad-hoc reports
- Advanced Adherence
- KPI Design (includes all the functionality of Basic Scorecards and Advanced Scorecards)

This guide assumes at a minimum that you have the Operational Series. Modules and functions that are either optionally available or are only available in the Advanced Series or Strategic Series are appropriately identified in the text.

***Note:*** The Workforce Optimization Solution includes the functions described in this Workforce Management guide. For that reason, you will at times see the product referred to as the Workforce Optimization Solution and at other times as Workforce Management.

## Architecture

This section describes the different servers and databases used in the Nortel Workforce Management Foundation and their basic functions.

It contains the following topics:


- "Foundation High Level Architecture" (page 20)
- "Servers" (page 21)
- "Integration Server Architecture" (page 22)
- "Report Framework Architecture" (page 23)
- "Pop-Up Server Architecture" (page 25)
- "Databases" (page 26)

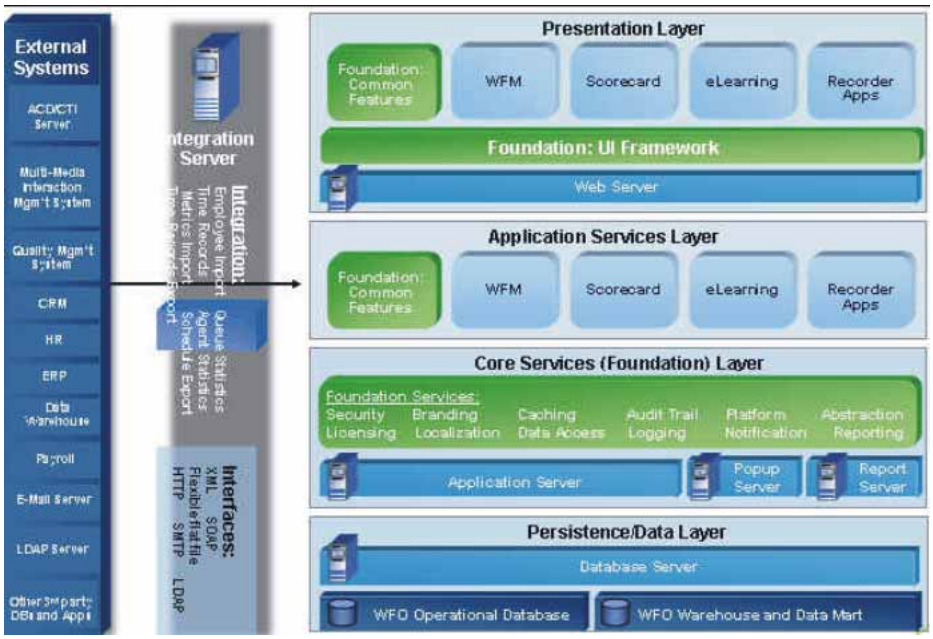



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- "Workforce Management Solution Data Flows" (page 27)
- "Scorecards Data Flow" (page 28)
- "User Interfaces" (page 29)
- "Unified Administration and Management" (page 30)


## Foundation High Level Architecture

The high level architecture of the Nortel Workforce Management Foundation is shown here.




The different servers that might be used in the Nortel Workforce Management Foundation include:

- Database Server (Microsoft SQL Server)
- BEA Weblogic, or the Application Server, to manage the business logic
- Cognos Reports Server, to manage reporting
- Pop-up Server
- Integration Server

The different databases that might be used in the Nortel Workforce Management Foundation include:

- The operational database for employee, contact, and schedule information
- The data warehouse, for Scorecards implementations



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- The training database
- The What-If database

***Note:*** The trainining database and the What-If database are not shown in the diagram and are discussed later.

The Foundation supports logical servers and multiple server machines. Each logical server is a set of functions. Multiple servers can be combined on a single machine. For example, you can run the Application server and Integration Server on one machine. The Pop-up server is typically run on the Application server.

Alternately, there could be multiple machines for one function. For example, you could have multiple Integration or Application servers if you have a large number of users. For scalability in a larger implementation (more than 2500 users), there might be more than one application server. Multiple application servers are synchronized using AppLink software.

## Servers

In the Scorecards Foundation, different servers are used to serve different functions.

### Database Server

The Scorecards foundation supports Microsoft SQL Server.

### Application Server

While there are several server applications, the primary one is the application server, also known as the production server, which is based on BEA Weblogic. This server hosts the Workforce Optimization applications and is the centerpiece of the Workforce Management package. All applications, including Forecasting and Scheduling, access information through the Application server.

### Training Server

This server is used for initial and continuing training for end users of the Workforce Management solution. The server and associated database are distinct from the production application server and database that are used for the activity tracking and adherence functionality of the contact center, and in some cases may be installed on a different machine

### Integration Server

The Integration Server provides seamless information flow between the Workforce Management package and contact center data sources and applications. The architecture and function of the integration server is explained in the next topic.



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### Reports Server

The Reports server is based on Cognos ReportNet This reporting engine comes with a web-based reporting tool.

The Reports Framework and Server and the Workforce Management Reporting architecture and information flow are detailed in another topic.

### Pop-up Server

This server sends pop-up alert messages based on alert rules or when initiated by a user. The Pop-up server and the application server are normally installed on the same computer. The Pop-up server listens on port 5060 for connections from the application server and pop-up clients. This is a well known port reserved for Session Initiation Protocol (SIP) servers. If this port is in use, select another port.

The server is part of the Pop-up Notification System, which allows intrusive notifications to be sent directly to the agent's desktop. This mechanism is in addition to the emails used in the WFO Notification system.

The various components of the Pop-up Notification System are discussed in another topic.

## Integration Server Architecture

Integration Server runs individual adapters used for importing data into the Workforce Management databases.

The Workforce Management web application's System module's Integration section gives you access to Integration Server, an open integration platform that provides seamless information flow between the Nortel Workforce Management Foundation and contact center data sources and applications.

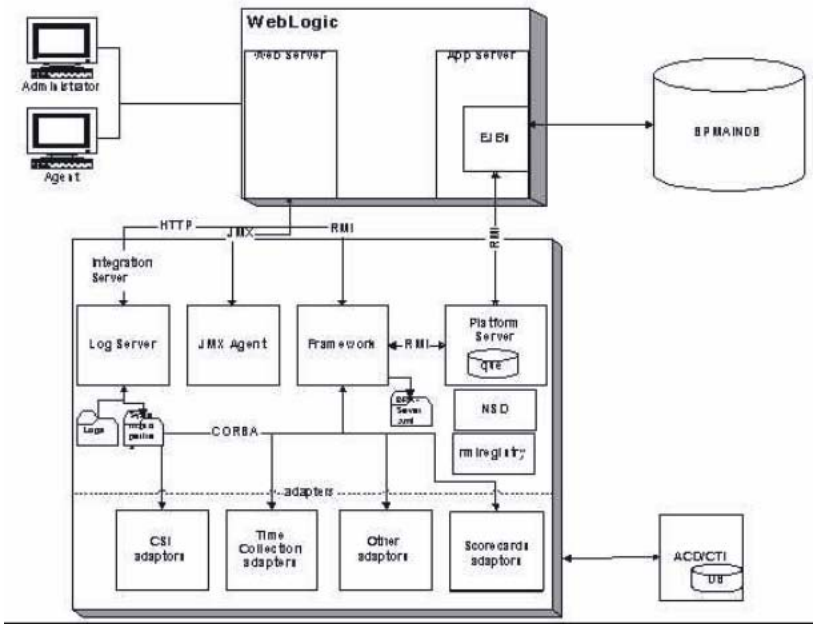
Integration Server consists of the following main software components:

- The Integration Server service
- The Workforce Management web application's **System** module's **Integration** section. This section is used to configure Integration Server.
- Integration packages, interfaces, and adapters.

In the following diagram, each box within the Integration Server server represents a running process.



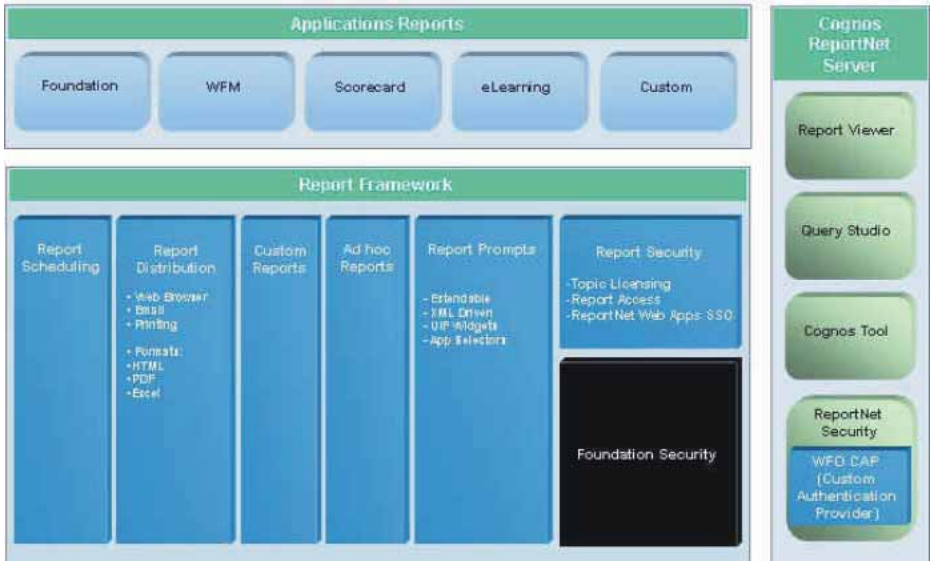
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Each process is an individual Java Virtual Machine (JVM). These processes will appear as separate java.exe processes in the Windows Task Manager.

## Report Framework Architecture

The Workforce Management Report Framework is a web-based enterprise report management and distribution multi-tier system. The reporting architecture relies heavily on the infrastructure and interfaces provided by the Nortel Workforce Management Foundation and by the report server that hosts the reports. Currently, Cognos ReportNet is used as the report server.






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Key components involved in the process of producing and viewing of report data are:

- User interface components within Workforce Management that support navigation through report objects, scheduling of reports, report access right setting, running reports, and viewing reports.
- Report parameter controls that simplify the process of entering parameter values.
- Cognos ReportNet services that implement enterprise report management, report running, and the report distribution system.
- The Workforce Management Report Framework packages that implement a java interface between the Workforce Management user interface and Cognos ReportNet.
- The Report Security component.
- A Web server (Apache Tomcat), which the Report Framework uses to communicate with Cognos ReportNet.
- The Production database, which contains report subschema (tables, stored procedures, row data, composite report data) used to configure the Report Framework, manage report objects, and produce report instances.
- A report data dump component, which is used on a regular basis or on demand to produce composite report data and persist them in the production database.
- A report viewer, which is a web-based Cognos product used to view report data.

The Report Framework supports three types of information flow:

1. Managing report objects

   Cognos ReportNet takes a SOAP request, parses it, produces an output SOAP response about properties of required report object(s), and then passes it back to the Report Framework. This stream is then passed on to the related report page, and is then served to the Web client through the BEA Weblogic Server.

2. Viewing report data

   Cognos ReportNet takes an HTTP request, parses it, and uses the report output data to produce a report instance. The report instance is then passed to the browser through the Report Viewer.

3. Running adhoc reports

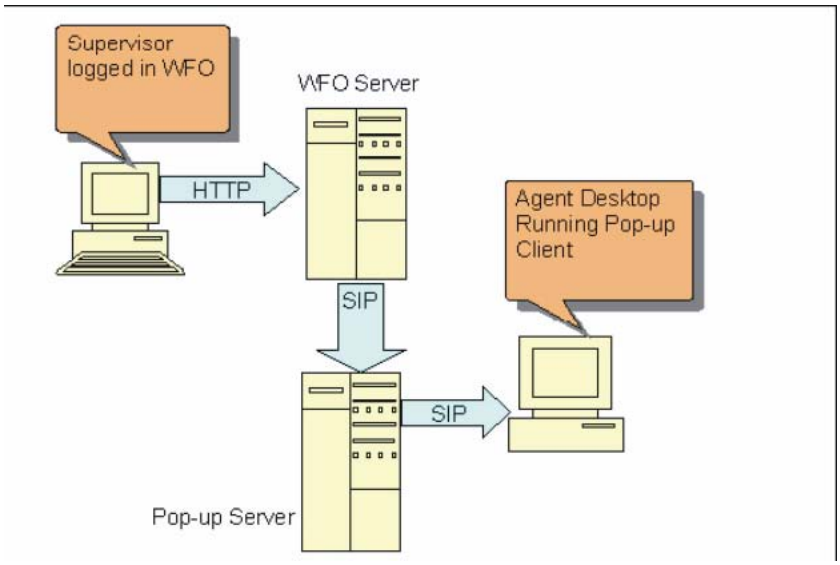
   The Report Framework starts Cognos ReportNet Query Studio application using single sign-on.



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## Pop-Up Server Architecture

The following diagram shows the various components of the Pop-up Notification System and the communication protocol between them. The Pop-up server and the Application server (shown in the diagram as WFO Server) are installed on the same computer. The Pop-up client, which is a standalone application, is installed on employee desktops.




The Pop-up server and the Application server are normally installed on the same computer. The Pop-up server listens on port 5060 for connections from the Application server and pop-up clients. This is a well known port reserved for Session Initiation Protocol (SIP) servers. If this port is in use, select another port.

> ***Note:*** SIP is a protocol used for establishing sessions on the internet by applications such as VOIP Calls, Presence, and Instant Messaging. It uses e-mail style addresses to identify users.

The host name and port number are used to configure the Pop-up and DNS Server.

Pop-up clients by default listen on a TCP port 2701. The Pop-up server opens a connection to the pop-up client on this port. If this port is in use, the user must select another port.

The port number will be used when installing the pop-up client.

The pop-up feature enables users to get real time alerts. The server can handle two types of notifications.

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— A user logs on to the Workforce Managementweb application and sends a Pop-up notification using the **Send Message** button.

- Rule Based - Automatic
  — The Workforce Managementadministrator configures Alert Rules. When such a rule is triggered, Pop-up notifications are sent automatically.

The features of the Pop-up Notification System include:

- .NET Pop-up client running on agent desktop to view messages
  — HTML rendering of messages
  — Message with Single Sign-On URL
  — Message priority
  — Message managing – deleting
- SIP Messaging Protocol, Open Source Implementation (SIP Foundry)
  — DNS, SSL, and NAT/Firewall Support
  — Load Balancing and failover of SIP servers

## Databases

There are four databases used:

1. **BPMAINDB**

   The operational database contains all employee and organization data and it is the primary database for information. This is the production database and is required for all installations. **BPMAINDB** stores critical information such as security, employees, organization, and all other application data as well as queue statistics, scheduling information and history, and time records.

2. **BPWHATIFDB**

   This database is used to create an exact copy of **BPMAINDB** and is used by schedulers to test theories. They can use this database to explore different ways of producing schedules or obtaining statistical information using data from the operational database. Information can be saved in the What-If database and can be accessed by other users.

   This functionality is available only for users of Workforce Management.

3. **BPTRAINDB**

   This database is used to train users on how to use the system. It contains predefined information to allow the users being trained to get started.



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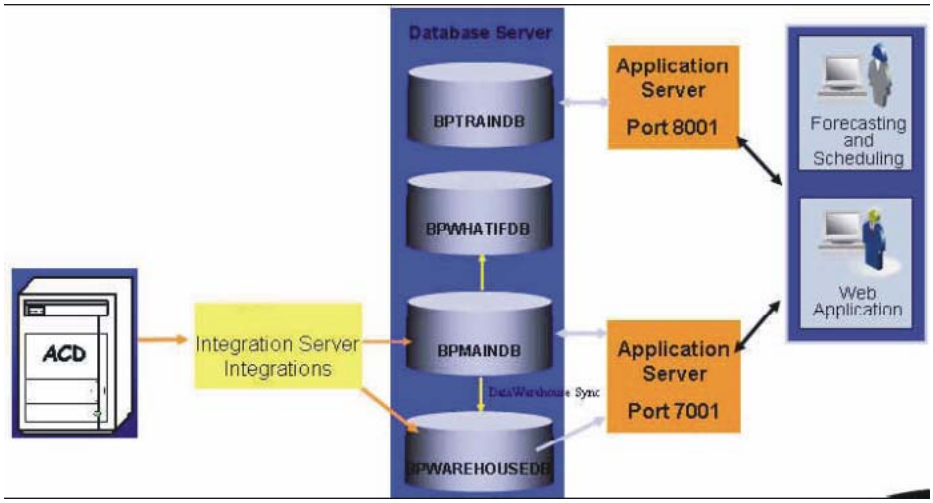
4. **BPWAREHOUSEDB**

   The warehouse database contains performance statistics that are extracted from the data sources. It is only installed and used with Scorecards.

## Workforce Management Solution Data Flows

Integration Server extracts basic call data from the ACD or other data source and provides it to the web application. This data includes:

- call volumes
- AHT, backlog (for deferred contacts)
- service levels
- abandons
- agent log-on/log-off times
- agent state changes
- personal performance statistics for each agent




The operational database (**BPMAINDB**) contains all employee and organization data, and it is the primary database for information. The warehouse database (**BPWAREHOUSEDB**) contains performance statistics that were extracted from the data sources. It is only installed and used with Scorecards.

Integration Server also manages the flow of data between the **BPMAINDB** database and the **BPWAREHOUSEDB** database through synchronization processes.



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All Forecasting and Scheduling-specific data is viewed and manipulated through Forecasting and Scheduling.

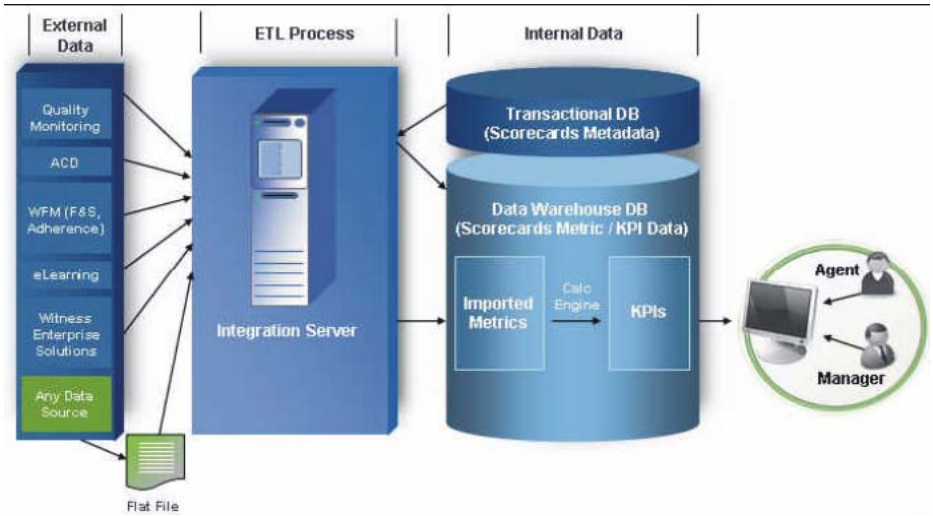
All other data is managed and configured through a browser-based interface (referred to in this training guide as the web application) that allows direct access to the application server.

There is a synchronization between **BPMAINDB** and **BPWHATIFDB** as well, which is triggered by Forecasting and Scheduling. New data created in the What-If database stays in What-If; each time the synchronization is triggered, it overwrites existing content from the What-If database first.

> ***Note:*** There is no connectivity between the training environment database and servers and the production database and servers, providing a true “safe” environment where agent, manager, and scheduler training can take place.

## Scorecards Data Flow

The following diagram shows the Scorecards data flow within the Nortel Workforce Management solution.




Integration Server runs the data source adapters that periodically connect to data sources and import measures from them. Raw data (source measures) is extracted from different data sources (ACD, Forecasting and Scheduling, Quality Monitoring version 7.8 SP1, or any other source). It is saved in the **BPWAREHOUSEDB** using an Extract-Transform-Load (ETL) process.

A calculation engine runs on the raw data and calculates the KPI formulas that have been defined in the system.



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A user can then log in to the system, and access his/her Scorecards data with a Scorecards view that matches the user's role.

The Integration adapters ensure that any changes made to the operational database, including editing of system entity definitions, are updated to the warehouse periodically or on request.

The ETL process consists of the following steps:

1. Extracting data from a source system.
2. Transforming data to work in Scorecards:
   - Employee Mapping
   - Date
   - Organization
   - Measure
3. Loading metrics to source measures in the Scorecards warehouse database.

Calculation is a nightly process that uses configured formulas to calculate Key Performance Indicators (KPIs).

For example, to calculate Average Handle Time:

1. Source measures (Talk Time, Average Call Wait Time, Hold Time, Calls Handled) are loaded by adapters.
2. The Scorecards - Calc Engine adapter calculates the Average Handle Time KPI.

   Aggregation is also handled at this step
   - By Time (week, month, etc.)
   - By Organization

The ETL and Calculate processes are handled by the Integration adapters.

## User Interfaces

The three main user interfaces (UI) used in the Workforce Management solution are found in:

- the web application, described in "Getting Around in Workforce Management" (page 36)

  The web application is used for:
  - — Administration of the system
  - — Running reports
  - — Viewing schedules



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— Managing requests for time-off, shift swaps, shift bids

— Viewing performance scorecards

— Viewing and managing adherence

— Viewing and managing contact center statistics (Pulse)

- Forecasting and Scheduling, described in "Administering Forecasting and Scheduling" (page 289).
- Strategic Planning, described in the *Workforce Management Strategic Planning Guide*.

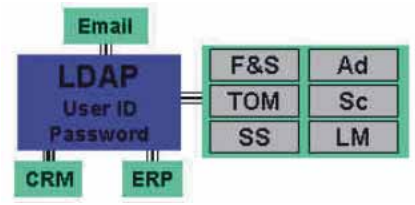
## Unified Administration and Management

To make the Workforce Management solution as easy as possible to use, there are certain key areas that have been unified for database administration and management. These include:

- "Unified User Management" (page 30)
- "Unified Organizational Structure" (page 31)
- "Unified Activities Structure" (page 31)

### Unified User Management

Workforce Management has a unified user management system, where all users are entered into one database and passwords are managed in the web application.




Legend:

LDAP – Lightweight Directory Access Protocol (protocol to enable user security management across multiple applications)

CRM – Customer Relationship Management (software to organize and manage customer info)

ERP – Enterprise Resource Planning (software to manage business processes across an enterprise)

F&S – Forecasting and Scheduling



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Ad – Adherence

TOM – Time Off Management

SS – Shift Swapping

Sc – Scorecards

LM – Lesson Management

### Unified Organizational Structure

Organizational structures are also unified for ease in granting scope of access to employee and organization data, as well as ease of set-up and administration.

### Unified Activities Structure

Activities are defined using Forecasting and Scheduling and used throughout the Workforce Management solution, simplifying activity management.

## Understanding Your License

Your license is used to enable your access to specific features in the overall Nortel Workforce Management product. For example, even though the entire suite is installed, applications such as Scorecards or eLearning will not be available unless you have licenses for them.

Your license governs the usage of the system in the following areas:

- Applications/Features – limits the applications available to you.
- Number of entities – limits the number of entities supported by the licensed application. Some examples of these entities include employees that the system can handle, or the number of integration packages that are supported.

Limits may be imposed on each of the licensed product features of the Nortel Workforce Management solution:

- Total number of users allowed to use the Workforce Management solution
- Total number of active (non-terminated) employees managed by the Workforce Management solution
- Total number of units of a specific module licensed by your organization. For example, the number of RTA integration packages licensed. If an application or a module provides some functionality with respect to a piece of hardware, such as an ACD switch, this limit on an application tells with how many ACD switches one will be able to use that module.
- Expiration date on a feature's functionality



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Licensing information is encapsulated in an XML file which contains encrypted information.

A sample XML license file is shown here:



```
<?xml version="1.0" encoding="UTF-8" ?>
- <BP-licenses format="2.0" product="Workforce Optimization Suite" release="7.8">
    <licensee>Certification License</licensee>
  - <item displayname="Reporting" name="Reports">
      <expiration>07/15/2007</expiration>
      <signature>PCiUnkOzxlB/AB4lTfnJfutnLhRLKt0lTZMEUFH5UTKLEbQ9tvndaFdbsBQtKqTRiwqSTWJhgNor
        99uQgWtFAwjA6n2AGgdlvOY3xlxy2Jk=</signature>
    </item>
  + <item displayname="Basic Scorecards" name="AdvisorEssential">
  - <item displayname="Alerts (Notifications)" name="Alerts">
      <expiration>07/15/2007</expiration>
      <signature>PCiUnkOzxlB/AB4lTfnJfqkdogH6woBJUQJ78QTknMy2Fxz8QMacIY0Ly1NOncBM3iSOc7oGiIC5
        iBTqsExmvJ92kV6nOhzTtkJ1RY2zE77ee/3zga8XSCKQqmWo9RI+</signature>
    </item>
  + <item displayname="Agent Adherence (Basic minimum)" name="BasicAdherence">
  + <item displayname="Forecasting and Scheduling" name="FS">
  + <item displayname="Time Record Export" name="TRE">
  - <item displayname="Language Support (Localization)" name="Language">
      <expiration>07/15/2007</expiration>
      <signature>PCiUnkOzxlB/AB4lTfnJfpc/jXAbjajlsJ3vRz8eszVAHcEMfomVzYpaJqbeaZpuVKwt2OmKtryz
        t8na4n+OQnAqezDcIAm8S4x3gfeWAfwI3TrYphJeY71dcpce9ruqbJ/aiKlYGYOZm33OERRVww==</signature>
    - <item displayname="English (United States)" name="en_US">
        <expiration>07/15/2007</expiration>
        <signature>PCiUnkOzxlB/AB4lTfnJfgoBMB9CD0QRvEi244hWtzbLu0+teBAkBJs9b4D6d8BgDGfJtqc/RYfx
          lmCMXOw55J92kV6nOhzTtkJ1RY2zE77ee/3zga8XSCKQqmWo9RI+</signature>
      </item>
    </item>
  + <item displayname="eLearning Lessons" name="eLearningLessons">
  + <item displayname="Integration Server" name="Exchange">
</BP-licenses>
```

It contains the following information:

- Licensee's Name
- One or more licensed items (application or feature)
- An expiration date for each licensed item and attributes such as Employees, Seat, or Units

## Licensing Types

Licensing is either:

- User-based: based on the total number of employees
- Seat-based: based on the number of concurrently scheduled employees, referred to as seats

In seat-based licensing, if your current schedules, published or unpublished, exceed the number of seats for which you are licensed, all users will see one or both of the following error messages displayed on the login page:

**<*x*> seats are scheduled from <*y*> to <*z*>. Your license does not allow more than <*n*> seats. Please contact your system administrator for assistance.**



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**<*x*> seats are published from <*y*> to <*z*>. Your license does not allow more than <*n*> seats. Please contact your system administrator for assistance.**

If either message displays, contact your sales representative to rectify the problem.

## Managing Your License

Use the License side-bar element to review your license data.

To update your license information:

| Step | Action |
|---|---|
| 1 | When you receive a new or updated Workforce Optimization Solution license file, open the location indicated by Technical Support and make a backup copy of the existing **WFOLicense.xml** file. |
| 2 | Save the new license file to a known location on the application server's hard drive. |
| 3 | On the **License** tab, click **Update License**. |
| 4 | In the **Upload License File** pop-up window, click **Browse**. |
| 5 | Navigate to the file you saved in Step 2 above. |
| 6 | Once the file name appears in the **License** field, click **Upload**.<br>***Note:*** Once the license has been uploaded, the application server must be restarted for the new license to take effect. |

**—End—**



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# Navigating in Workforce Management

## Starting the Workforce Optimization Solution

There are two ways to start the web application in Workforce Management, depending on how your system is configured:

- Single sign-on

  When your system has been configured for single sign-on, you do not log into Workforce Management, or any of the Nortel Workforce Management applications, such as eLearning, or Quality Monitoring. All authentication is done when you log into Windows on your computer.

- Application-dependent sign-on

  You must log into each Nortel Workforce Management application independently.

To start Workforce Management:

| Step | Action |
|---|---|
| 1 | Open your web browser and type the URL of the server location where Workforce Management is installed.<br><br>If your system is configured for single sign-on, Workforce Management displays the default page for your role, or the page that you have selected in Preferences. You can start working with Workforce Management.<br><br>If your system is not configured for single sign-on, the Login page opens, a portion of which is shown below:<br><br>  |



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2 Type your Username and Password (both are case-sensitive), then click Login. Workforce Management opens to the default page for your role or the one you have selected in Preferences.

***Note:*** The following are special characters, and cannot be used within Nortel Workforce Management:

[ left square bracket
] right square bracket
< less-than sign
> greater-than sign
\ reverse solidus (backslash)
" quotation mark
& ampersand
! exclamation point
? question mark

Individual pages within Nortel Workforce Management might restrict the use of some other characters.

**—End—**

If users have forgotten their password, and provided your company's networking and security environment permits, they can click Reset Password. The system will prompt them for certain data to identify them, and if an e-mail address has been registered for them, it will send a temporary password to their e-mail address. They can use this temporary password to log in; the system will then require them to change the temporary password and log in using the new password they have selected.

***Note:*** If an e-mail address is not registered for them, they will be instructed to contact their system administrator either to reset their password or register an e-mail address for them, so they can reset it themselves.

## Getting Around in Workforce Management

Workforce Management uses a web-browser-based interface with a navigation bar and multiple levels of tabs.



The topmost level of navigation consists of modules, such as the following:






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The next level of navigation is referred to as a section, such as the following:

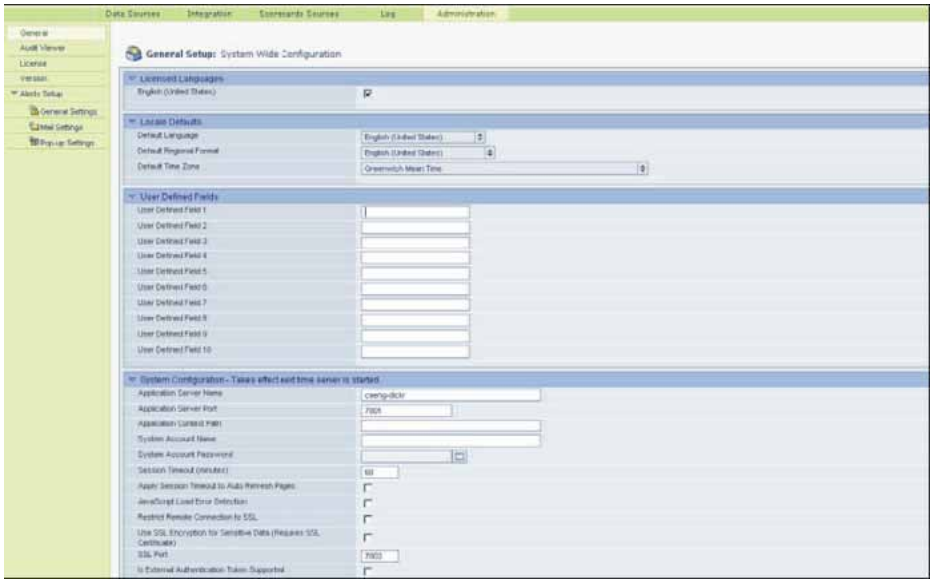



The next level of navigation is referred to as a tab, such as the following:




> ***Note:*** In some modules, there is no need for a section level. Instead, the next navigation level consists of tabs.
> In addition, if a role has access to only one module (as is the case for the default agent role), that module is hidden, and the sections below it are displayed as modules. For example, an agent would not see the **My Home** module, but its sections, such as **My Schedule**,would be displayed as modules. This behavior allows agents to see more information on the screen without having to scroll.

Finally, a different type of lower-level navigation, consisting of sidebar elements, is only used for administrators in the **System** module's **Administration** section:



General controls are located above the navigation bar:

- Click **Refresh** to update the data on your page.
- Click **Print** to print a copy of the current page.
- Click **Send Message** to send a pop-up alert to selected target users. See *Sending Messages*.



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- Click **Enter What If** to enter What If mode. See *What If Mode*.
- Click **Preferences** to open the Preferences window. See *Setting Preferences*.
- Click **Help** to open the Workforce Management Help system and display help for the current page. See *Getting Help*.
- Click **Logout** to log out of the Workforce Management. See *Logging Out*.

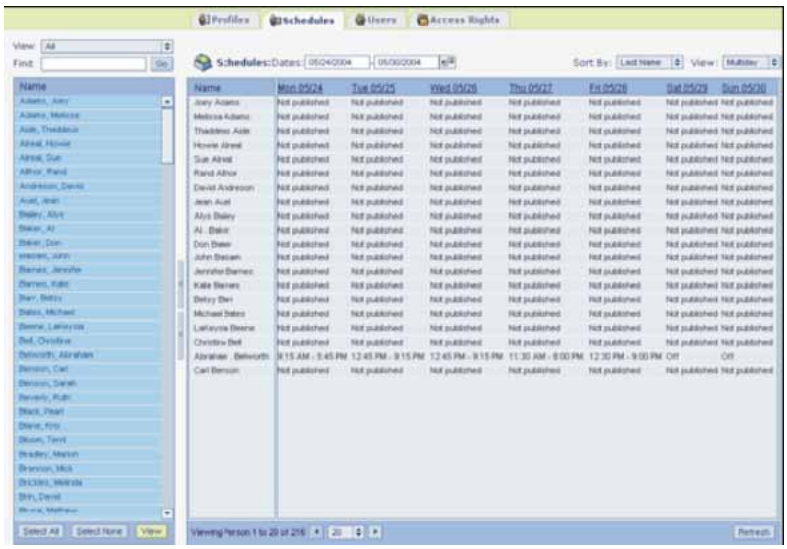
Navigate by clicking the appropriate button for the module, section, tab, or sidebar element you want to use. Note that the button configuration changes depending on the user's role.

***Note 1:*** If you resize your browser window, the rightmost buttons on the button bar may be hidden. Resize your browser window, scroll horizontally, or change your screen resolution to see them.

***Note 2:*** If you find yourself frequently changing among two or three tabs, you can open multiple sessions in separate browser windows to make your access to these tabs quicker and easier.

## Expanding Pages

Some pages in Workforce Management use two panes with a selection list on the left and an action page on the right.



Either side of these pages can be expanded by clicking one of the arrow buttons between the panes.

- Click the button facing right to expand the left pane into a summary list.



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- Click the button facing left to expand the right pane into a full page display.
- To return to the original display, click the single-arrow button to the side of the display. To switch the pages displayed, click the double-arrow.

The pane on the right may consist of one or more groupings, referred to as containers, as shown below:




Each container has its own title and can be collapsed or expanded. Containers may contain multiple collapsed levels.

## Expanding and Collapsing Lists

Some lists have controls that allow you to expand the list completely, or to collapse it.

- Click the right facing arrow button to expand the list.
- Click the down facing arrow button to collapse the list.

## Selecting Items in a Drop-Down Menu

You set the value of some items in the web interface using drop-down menus. There are two types of drop-down menus:

- single-selection

  You can only select one item from the drop-down menu.

- multi-selection

  You can select one or more items, using the **Ctrl** key to select non-adjacent items or the **Shift** key to select a contiguous range of items.

  ***Note 1:*** Once you've finished multi-selecting, click the drop-down menu button again.

  ***Note 2:*** If the items you have selected cannot be fully displayed in the selection box, position your cursor over the selection for a few seconds



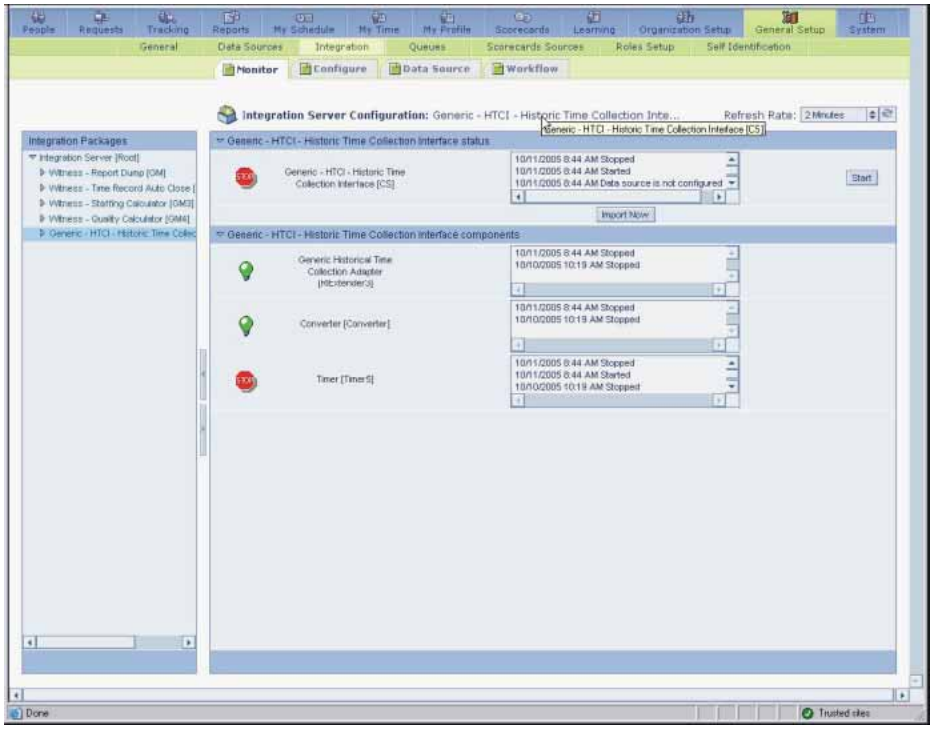
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(known as hovering). The selected items will be displayed as a tool-tip. This same technique can be used for both single and multi-selections.

## Expanding Truncated Text

Some windows automatically truncate text in the Content Title area of the window. To indicate that the text has been truncated, the system adds an ellipsis (...) to the end of the displayed text.

To expand the text so you can see it in its entirety, position your cursor over the text for a few seconds (referred to as hovering). The full text then appears in a pop-up box, as shown in the following figure:




## Sorting Data

Many pages contain columns of information that can be sorted.

To sort information:

- Click the name of the column to be sorted. The column head turns darker and a small arrow indicates the sort order of the column.
- To reverse the sort order, click the name of the column again.

## Printing a Page

To print a page:



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| Step | Action |
|---|---|
| 1 | Click **Print** on the navigation bar. The **Print** dialog box opens. |
| 2 | On the **Options** tab, select **Print frames as laid out on screen**. |
| 3 | Click **Print**. |

**—End—**

## Web Application Modules

This section provides a short overview of Workforce Management's functional modules.

> ***Note:*** Some of the modules discussed in this chapter are, by default, only visible for certain roles (administrators, agents, managers, etc.). For example, the System module is only seen by administrators. Moreover, some modules are options, and are only visible if licensed. In your role, you may not need or have access to these modules by default. They are included in this chapter only for the sake of completeness.

The Workforce Management web application is divided into the following modules:

- **My Home**—Entering and viewing activities, schedules, and personal data.
- **People**—Data profile, schedule viewing, user management, access rights, and, as part of the Advanced Workforce Management solution, time-off management for each employee.
- **Tracking**—Employees' time record information, adherence information, adherence exception management (in the Advanced Workforce Management solution), tracking your contact center performance, and alert rules, which are used to specify those events in Workforce Management that generate alerts to specified users.
- **Requests**—Part of the Advanced Workforce Management solution. Manager-level functions for processing time-off requests, shift-swap requests, and shift bidding requests.
- **Interactions**—Provides managers and supervisors with the ability to select and automatically log into the relevant Quality Monitoring server to search and play back interactions.
- **Reports**— Workforce Management's report selection and creation module. Reports are documented in a separate guide, the *Workforce Management Reports Guide*.



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- **Scorecards**—Scorecards for your organization and your employees. Because Scorecards can form part of several different Nortel Workforce Management packages, Scorecards use is covered in a separate guide, *Scorecards Users Guide*.
- **Learning**—This module, part of the Advanced Workforce Management solution, allows you to work with lessons, assignments, reviews, and competencies. Learning has its own help system and documentation set. For more information, please see the following guides:
  - *Competency-based Learning Administrator Guide*
  - *Competency-based Learning - eLearning Student Guide*
- **App Admin**—Settings for organizations, including holidays setup, activities setup, request management setup, scorecard setup, and more.
- **System**—System-wide settings for Workforce Management, including general settings, data sources, self-identification setup, integration servers, log entries, license, and version information.

The following material provides a brief overview of each module and its functions. Please see the appropriate chapter for additional in-depth information.

## The My Home Module

The **My Home** module is mostly used by agents, managers, and schedulers for entering and viewing activities, schedules, and personal data, accessing their own scorecards, and accessing their learning activities.

It provides access to the following functions:

- **My Schedule**—Allows users to:
  - **Summary**—View the current week's schedule in an abbreviated format, a time off summary, shift swap summary, and a shift bidding summary.
  - **Personal**—View detailed schedule information in a format best suited for printing.
  - **Group**—View schedule summary information for each day in a selected range for multiple employees in their own organizations and other organizations as specified in the Time Off settings.
- **My Requests**—Allows agents to view and manage their time-off, shift swap, and shift bidding requests (the latter is a time-off and shift bidding are separately licensed optional feature).
  - **My Requests**—View their personal requests.


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  - **My Time Off Calendar**—View personal Time Off information in Calendar View.
    - **My Time Off Calendar**—View details on the time off they have taken and the time off they have scheduled.
  - **Swap Board**—View and create Shift Swap postings.
  - **My Bid Options**—View available biddable schedules for a campaign and create Shift Bid Requests. Shift bidding is a separately licensed optional feature.
  - **Policies**—View Time Off, Shift Swap, and Shift Bidding Policies, as well as Auto-Processing and Filing Rules information.

- **My Time**—Agents use the **My Time** section, available as part of the Advanced Workforce Management solution, to enter and update activities and view their schedule.
  - **Schedule**—View their schedule of activities.
  - **Time Record**—Log onto the system, start and change activities, and end their shift.
  - **Log History**—View a history of their activities.
- **My Scorecards**—Allows users to view their scorecards. This section is documented in a separate guide, the *Scorecards User Guide*.
- **My Learning**—Allows users to view advanced eLearning tools that deliver customized lessons to your desktop. These lessons are designed to increase your performance and competency rank. This section is documented in a separate guide, the *Competency-based Learning Student User Guide*.
- **My Profile**—Allows you to review and update your personal information.
  - **Personal Information**—View your personal information and update your password.
  - **Schedule Preferences**—Agents can specify or change their preferences on how they are scheduled. These are their general preferences, and are not related to a specific week or scheduling period.

As administrator, by default you can use the:

- **My Scorecards** section to access your scorecards. (See the *Scorecards Users Guide* for more information.)
- **My Learning** section to access your learning activities. (See the *eLearning Student Guide* for more information.)



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- **Personal Information** tab of the **My Profile** section to review your personal information and change your password if desired.

### Changing Your Password

Use the **Login Data** container of the **My Profile** section to change your password.

To change your password:

| Step | Action |
|---|---|
| 1 | Expand the **Login Data** container if necessary. |
| 2 | Click the selector icon to the right of the **Password** field.<br>A pop-window appears, as shown in the following illustration:<br>  |
| 3 | Type a new password and confirm it. Remember, passwords are case-sensitive. |
| 4 | Click **Set** to save your new password. |
| 5 | Click **Save** at the bottom of the **Personal Information** pane to save all changes made, including any password changes. |

**—End—**

## The People Module

Use the **People** module to view and update certain information about employees and their access rights.

- **Profiles**—Create employees, and view and edit employees' personal data, including their personal contacts and administrative data. Fields shown in white are editable; those fields that are grayed out arenot editable.
- **Schedules**—View employees' schedule information. By default, this tab is not viewed by administrators.
- **Users**—View and update employee user names and passwords.
- **Access Rights**—View and update employee roles and privileges.
- **Time Off**—View and update employees' time-off information.



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## The Tracking Module

The Tracking module is used to view the time records for individuals or groups of individuals, work with adherence, track a contact center's performance, and configure rules for alerting specific users when potential problems occur.

- **Adherance**—A performance assessment tool that lets managers and schedulers analyze employee adherence to schedules at any point during the day or to assess trends and potential problems.
  - **Quick View**—Displays a snapshot of the current adherence information of selected agents.
  - **Adherance**—Allows you to view employee adherence to schedules . Out of adherence time periods for the selected day are displayed next to the employee's name.
  - **Day Details**—Shows the time recorded for each selected employee on the selected date.
- **Pulse**—Helps managers and schedulers track contact center performance. Also provides a place for them to enter historical data into the application and edit it.
  - **Pulse**—Helps managers and schedulers track their contact center performance. It collects their contact center data throughout the day from their ACD and compares their actual performance with forecast and required values, enabling them to analyze their performance and apply corrections as needed.
  - **History**—Allows managers and schedulers to enter historical data into the application and edit it.
- **Alert Rules**—Allows you to view alert rules for three different scopes: organizations, campaigns, and the system as a whole. This section contains the following tabs:
  - **Organization**—View alert rules pertaining to an organization.
  - **Campaign**—View alert rules pertaining to a campaign.
  - **System**—View alert rules pertaining to the Workforce Management system.
- **Application Analysis**—Launches Quality Monitoring's Application Analysis feature in a new browser window.

  ***Note:*** As mentioned previously, there are two "flavors" of adherence available:
  - Basic Adherence, which allows Real-time agent adherence tracking for phone-based activities.



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- Advanced Adherence, which extends Basic Adherence by adding adherence management capabilities for monitoring adherence to schedule for phone media, including aux codes and non-phone-based activities. Advanced Adherence also enables management of adherence exceptions.

At the present time, the Operational Workforce Management, Advanced Workforce Management, Strategic Workforce Management, and Performance Management Workforce Management solutions all include Advanced Adherence. Basic Adherence is available as an option for some other packages.

As administrator, by default you only have access to the **Adherence** tab of the **Adherence** section, and the **Alert Rules** section of this module. Additional tabs in the **Adherence** section, and the entire **Pulse** and **Application Analysis** sections, are, by default, not visible for administrators.

You may not need access to the additional sections, but information on them is included in this guide for informational purposes.

## The Requests Module

The **Requests** module gives administrators and managers access to functions for processing agent time-off requests, shift-swap requests, and shift bidding requests (an optional feature). It contains the following sections and tabs:

- **Agent Requests**—View and manage Agent Requests.
- **Time Off Calendar**—Contains detailed Time Off Information for two months.
- **Schedule Auctions**—Manage shift bid auctions, a separately licensed feature:
  - **Settings**—View or modify Shift Bid Auction settings.
  - **Schedules**—View or modify Biddable Schedules.
  - **Employees**—View or modify the employees (bidders) associated with a Shift Bid Auction.
  - **Bid Options**—View available biddable schedules or create bids for employees.

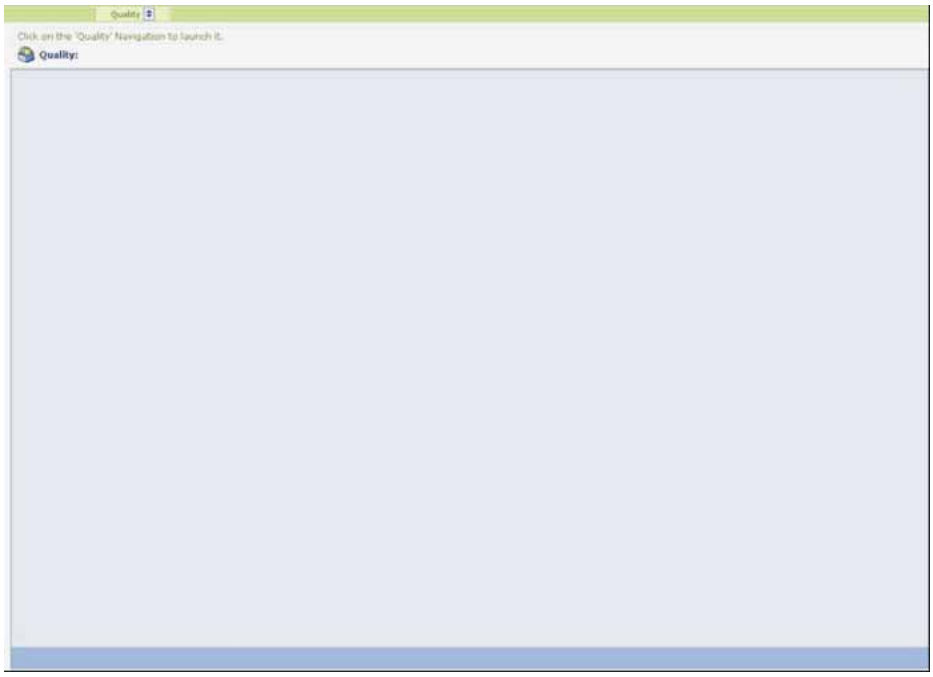
## The Interactions Module

If Quality Monitoring has also been implemented in your organization, such as in the Workforce Optimization Solution, this module provides agents, managers, and supervisors with the ability to select and automatically log into the relevant Quality Monitoring server.



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Clicking the **Interactions** module displays a page containing the Quality section with a server selector:




Click the selector to display the list of possible servers, and click the server to which you want to connect.

Quality Monitoring is then launched in a separate browser window. Please consult the relevant Quality Monitoring documentation for information on using Quality Monitoring.

## The Reports Module

Use the **Reports** module to run, view, and control access to Workforce Management's reports.

The use of the reports, how to run and view them, and their contents are covered in a separate guide, the *Workforce Management Reports Guide*. It covers the following section and tab of the **Reports** module:

- **Requests & Results**—Display report results and reset parameters:
  - **Instances**—List instances of a selected report and view their results.
  - **Parameters**—Change parameters and run a selected report.
- **Access Rights**—Set up and modify access rights to selected reports. See "Access Rights to Reports" (page 213).



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- **Deployment**—Deploy (or undeploy) custom reports. See "Deploying Custom Reports" (page 213).

In addition, it covers an essential component of the reporting structure, Report Dump. See "Report Dump" (page 215).

***Note:*** An additional section, **Ad Hoc Reports**, is available to users with the role Adhoc Query Analyst. This section enables such users to create or edit ad hoc reports using the Cognos Query Studio and is not documented in this guide.

### The Scorecards Module

Please refer to the *Scorecards Configuration and Maintenance Guide* for details on Scorecards-specific administration functions. Refer to the *Scorecards Users Guide* for information on using the **Scorecards** module.

### The Learning Module

This module, part of the Advanced Workforce Management solution, allows you to work with lessons, assignments, reviews, and competencies. Learning has its own help system and documentation set. For more information, see the following guides:

- *eLearning Administrator Guide*
- *eLearning Student Guide*

### The App Admin Module

Use the **App Admin** module to:

- view organizations and set up holidays and activities for them (these settings apply to the selected organization(s))
- view and manage Workforce Management security, namely roles, permissions, and self-identification procedures
- view and manage queues and queue mappings
- view and manage activities, activity types, adherence mappings, and time collector mappings
- configure request management for use in shift swapping, time-off requests, and the optional feature shift bidding
- view and manage scorecard configuration, including KPIs, objectives, and goals

- **Organizations**—Create and view organizations and modify some of their attributes:
  - **Settings**—A panel showing information about your organizations, including their time zones, week start, and day boundary.



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- **Holidays**—Create and edit organization-wide holidays, including their start and end dates and whether they are paid.
- **Job Titles**—Create and edit organization-wide job titles.

- **Security**—View and manage security settings for roles and self-identification:
  - **Roles Setup**—Create and change system roles and assign privileges to them.
  - **Self Identification**—Specify which employee information will be used for users to self identify. Identification is required for employees to register themselves as users (referred to as Self Registering). In addition, there might be circumstances when changing a password requires employees to identify themselves first.

- **Groups**—Create and/or edit an employee group.
- **Queues**—View and manage your queues and their mappings:
  - **Settings**—Create and edit information about your queues.
  - **Queue Group Mapping**—Map queues and data sources.
  - **Parent Queue Mapping**—Allows you to map normal queues to a parent queue.

- **Activities**—View organization-wide activities, and set up adherence and time collector mappings:
  - **Activity Types**—View organization-wide activity types.
  - **Activities**—View organization-wide activities, including their activity and earning types, whether they are paid, and other information.
  - **Adherence Mapping**—Map scheduled activities to other adhering activities.
  - **Time Collector Mapping**—Map the reason code of a data source with an organization's activities. Use when an employee's adherence to scheduled activities is determined by the data source.

- **Request Management**—Set up time-off management (part of the Advanced Workforce Management solution, and an option for the Operational Workforce Management solution), shift swapping, and shift bidding (optional for both solutions):
  - **Settings**—View and manage organization settings for time-off management, workflow, shift swap, and shift bidding.
  - **Validation**—Set validation rules for time-off, shift swap, and shift bidding requests.



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- **Filing Rules**—Create and view Request Filing Rules.
- **Available Time Off**—Allocate time-off hours and black-out days for a organization.
- **Auto Processing**—Create and view organization-specific auto-processing rules for agent requests.
- **Purging**—Purge (remove) requests from the database.

- **Scorecards Setup**—Set up Scorecards's scorecards. This section and the tabs associated with it are described in the *Scorecards Administration Guide*.

## The System Module

Use the **System** module to view system messages and manage your Workforce Management settings.

- **Data Sources**—Set up and configure non-Scorecards data sources:
  - **Settings**—Create and edit data sources and configure them.
  - **Data Source Groups**—Create, edit, and delete groups for your data sources.
  - **Reason Codes**—Set and edit data source reason codes.
  - **Agents**—View Agents assigned to each data source and their AgentIDs.
  - **Skill Mapping**—Map skills to queues for use with outsourcing.
  - **Activity Mapping**—Map activities to queues for use with outsourcing.
- **Integration**—Display and manage your system integration servers' (Integration Server) status, including adapters.
- **Scorecards Sources**—Allows you to configure data sources for use with Scorecards. This section and the tabs associated with it are described in the *Scorecards Administration Guide*.
- **Log**—Select and view the system error log.
  - **Log Viewer**—Configure and view the system log.
  - **Log Manager**—Select and activate the type of log to display.
- **Administration**—View and change system-wide settings for configuration settings, license, version numbers, and alerts. This section uses the following sidebar elements for navigation:
  - **General**—View and change system-wide configuration settings. Includes settings for system language and time zone, My Time and



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Tracking modules, Integration Server, reports, and other system technical settings.

— **Audit Viewer**—Allows you to search for and view audit trails of certain system functions, such as changes in user status or security functions.

— **License**—Display and update details about your Workforce Management license.

— **Version**—Display information about the version and schema numbers of the various components of Workforce Management.

— **Alerts Setup**—Configure parameters for Alerts in Workforce Management.

  – **General Settings**—Configure general parameters for the Alerts subsystem in Workforce Management.

  – **Mail Settings**—Set configuration parameters for e-mail sessions in the Alerts subsystem of Workforce Management.

  – **Pop-up Settings**—Set configuration parameters for pop-up alerts in the Alerts subsystem of Workforce Management.

## Setting Preferences

You can set your viewing preferences by clicking **Preferences** on the navigation bar. These settings remain in effect until you change them.

***Note:*** These settings affect only your display. Some of the preference settings shown may not be applicable to you, depending on your license.

Preferences allow you to choose the following display options:

**General:**

- **Default Language**—available languages are determined by your license and made available by your administrator through the Licensed Languages container of the System module's Administration section's **General** sidebar element. If only one language is available, this option is not displayed.
- **Default Regional Format**—sets the default format for:

  — Date (short and long formats, order, separator)

  — Time (12 or 24 hour and relevant symbols, separator, leading zero)

  — Currency (symbol, number settings)

  — Number settings (000 separator, decimal point character)

  — First day of week (in calendars)



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The localized setting will be used anywhere dates, times, currency figures and numbers are displayed.

- **Default Time Zone**—activity times and schedules are displayed to you in this time zone.
- **Default Screen at Login**—the screen that first appears each time you log in.

**User Interface:**

- **Show Navigation Images**—toggles the display of the images shown above the module names in the navigation bar. Suppressing the display of the images allows more information to be displayed on your monitor, somewhat reducing the need to scroll.
- **Show Organization Dropdown in Hierarchical Order**—determines how organizations are displayed in drop-down menus. If this parameter is checked, organizations are displayed in hierarchical order, that is, indention is used to show peer, parent, and child relationships. All organizations are shown, even those not in a user's scope.

  If this parameter is not checked, organizations are listed alphabetically. Only organizations in a user's scope are shown.
- **Repeat Header Every N Rows**—the frequency a table or report header will be displayed as you scroll through a list. Type a number in the text box. A blank box sets the number to the default, 30. Enter a zero (0) if you don't want the header to repeat.
- **Default Rows in a page**—for pages that support pagination, the number of rows to display by default for tabular data.

**Activity Manager / Adherence:**

- **My Time Record Sort Order**—Choose **Ascending** or **Descending** for the display order of time records.
- **Adherence Auto-Refresh (Today Only)**—Choose a time, such as 2 minutes, that determines the frequency at which adherence information is automatically refreshed. The setting **No Auto-refresh** disables the automatic refresh of adherence data.
- **Adherence Timeline Collapsed View**—Choose which of the four timelines available on the **Adherence** tab of the **Tracking** module is displayed when the timelines are collapsed. See"Viewing Adherence" (page 115) for additional information.

**Schedule:**

- **Show Unavailability Events in Schedules**—determines whether calendar events of type Unavailability are displayed in the schedule



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areas (**My Schedule** module, the **Personal** tab, described in the *Workforce Management Agents Guide*, and **People** module, **Schedules** tab, described in the *Workforce Management Managers Guide*).

- **Show Timeoff Events in Schedules**—determines whether time-off events are displayed in the schedule areas (**My Schedule** module, the **Personal** tab, described in the *Workforce Management Agents Guide*, and **People** module, **Schedules** tab, described in the *Workforce Management Managers Guide*).

## Sending Pop-Up Messages

You can use the **Send Message** button to send pop-up alerts to other employees.

When you click the **Send Message** button, the **Send Pop-up Message** pop-up window opens.

To create a new alert message, you need to provide the pop-up alert target information (to whom) and the message itself.

### Providing Target Information

You can send pop-up alerts to employees in a number of ways:

1. You can select employees by name, by checking the **Employees** check box. To select specific employees, click the employee icon. The employee selector screen appears. Select the employees as desired and click **Save**.
2. You can send pop-up alerts to all employees selected by an existing filter or one that you create or edit at the time of sending the alert by checking the **Employee** Filter check box.
3. You can send pop-up alerts to employees using their Workforce Management login names, separated one from the other by semi-colons, by checking the **Additional users by login names (semicolon separated)** check box.
4. You can send pop-up alerts to employees by role, checking the **Additional users by role** check box, and selecting the desired role from the drop-down list.
5. You can send pop-up alerts to employees using their Windows login names, separated one from the other by semi-colons, by checking the **Additional delivery targets (semicolon separated)** check box, provided you have specified these in the **Pop-up Address** field on the **Profiles** tab of the **People** module.

You can select targets using one or more of the above methods, if desired.



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### Providing Message Information

To provide the message information:

| Step | Action |
|---|---|
| 1 | Insert the subject line and the message text in the available text boxes. |
| 2 | Select the delivery template from the drop-down list. |

**—End—**

### Message Templates

Three different templates are used for pop-up messages:

- **Normal**

  Normal pop-up messages display a banner at the bottom right of the screen. This banner resembles a sheet of ruled note paper, and shows the subject of the message against a yellow background, and the sender and the date and time the message was sent against a white background. Clicking the banner opens a separate window showing the entire message.

- **High**

  Messages sent using the **High** template are meant to be read immediately. For that reason, no banner is displayed, but the message is displayed in a separate window.

- **Confidential**

  Confidential pop-up messages display a banner at the bottom right of the screen. This banner resembles a sheet of ruled note paper, and shows the text **Confidential message received...** against a yellow background. To maintain the confidentiality of the message, the sender and the date and time the message was sent are not displayed. Instead, the text *****CONFIDENTIAL***** is displayed. Clicking the banner opens a separate window with a button that enables the reader to show the entire message (an additional level of security).

### Sending the Message

To send the pop-up alert message:

| Step | Action |
|---|---|
| 1 | Click **Send Message** to send the alert message. |



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2 Click **Done** if you want to close the form without sending the message.

**—End—**

The form closes and you return to the web application.

## Receiving Pop-Up Alert Messages

The pop-up messages you receive can be sent to you in two different ways:

- As a result of alerts that your administrator has configured. Alerts can be sent for such conditions as one of your KPIs being out of range, or your being out of adherence.
- When an administrator, manager, supervisor, or scheduler uses the **Send Message** button at the top of the web application window.

### Message Templates

As described previously, three different templates are used for pop-up messages:

- **Normal**

  Normal pop-up messages display a banner at the bottom right of the screen. This banner resembles a sheet of ruled note paper, and shows the subject of the message against a yellow background, and the sender and the date and time the message was sent against a white background. Clicking the banner opens a separate window showing the entire message. Click the green checkmark to close the message or click the red "X" to delete the message. If you take no action, the banner fades away, but the message is not lost; pop-up messages are kept for the duration of your session within Workforce Management.

- **High**

  Messages sent using the **High** template are meant to be read immediately. For that reason, no banner is displayed, but the message is displayed in a separate window.

- **Confidential**

  Confidential pop-up messages display a banner at the bottom right of the screen. This banner resembles a sheet of ruled note paper, and shows the text **Confidential message received...** against a yellow background. To maintain the confidentiality of the message, the sender and the date and time the message was sent are not displayed. Instead, the text *****CONFIDENTIAL***** is displayed. Clicking the banner opens a separate window with a button that enables the reader to show the entire message (an additional level of security). Click the green checkmark



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to close the message or click the red "X" to delete the message. If you take no action, the banner fades away, but the message is not lost; pop-up messages are kept for the duration of your session within Workforce Management.

## Reading Messages

As mentioned previously, you can click the message banner (for Normal and Confidential messages) to open the message in a separate window.

If the banner is no longer visible, you can click the icon on the Windows taskbar.

The window that opens displays an **Alerts** tab, consisting of the following message elements:

- Navigation Icons
- Header
- Controls
- Body

### Navigation Icons

Icons are displayed for each message. Icons for the first and last message are always displayed. When more than ten messages exist for the current session, an icon resembling multiple pages is shown, allowing you to move from one group of ten to the next.




Clicking on the icon labeled 11-21 above would change the navigation display to the following:




When you select a particular message icon, the color changes to red for **High** template messages, and yellow for **Normal** and **Confidential** template messages.

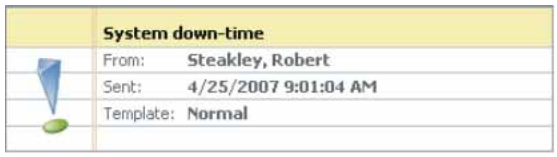
### Header

The message header is displayed just below the navigation icons. It resembles the pop-up banner described previously, and varies according to the message template:

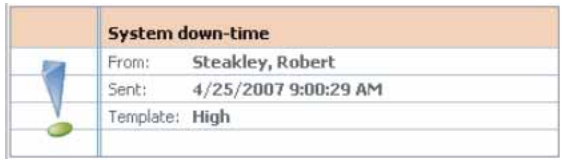
- Normal



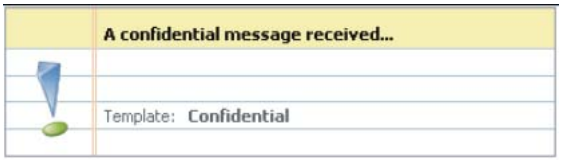
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- High




- Confidential




### Controls

Message controls are displayed to the right of the message header. All messages, regardless of the template used, have a **Delete** button. Click the **Delete** button to delete a message.

In addition, **Confidential** messages have the **Show** button. Click the **Show** button to display the sender and message body of a confidential message. (Until you click this button, the sender is displayed as the string *****, and the message body as the string ***Confidential***.)

### Body

The message body is found below the message header area. Messages are shown in plain text for both **Normal** and **High** template messages.

***Note:*** HTML tags can be used in the message text.

Confidential messages are not shown in plain text until you click the **Show** button described previously. Instead, the string ***** is shown in place of the sender (in the window header), ***CONFIDENTIAL*** in place of the text, and the string **Confidential message received...** is shown in place of the subject.



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## What If Mode

A special mode exists in both the web application and Forecasting and Scheduling that allows you to work with hypothetical schedule information without inadvertently altering the contents of your production database. For more information on What If mode, please see the chapter on Forecasting and Scheduling's Work Modes in the *Workforce Management Schedulers Guide*.

## Getting Help

Help for each Workforce Optimization Solution web page is available by clicking the **Help** link on the navigation bar.

Click the **About** button to view statements about intellectual property, open source attribution, and the user license.

Click the **Close** button to return to the main page.

## Logging Out

You can log out of the Workforce Optimization Solution at any time.

To log out of the Workforce Optimization Solution:

- Click **Logout** on the navigation bar.



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# Working with Roles and Privileges

Access to all functions is controlled through the use of roles. See Typical Privilege Sets. A role defines a user's access rights; each user must be assigned a role in order to log into Nortel Workforce Management and Workforce Management will display or enable only those functions to which a user's role provides access. In Scorecards, your participation in KPIs is based on roles.

Each user's role is also assigned a scope. The scope can be either the organization level to which the role applies, campaign to which the role applies, or group to which the role applies. For example, a manager may have access to the records of people in his own organization but not those in other organizations, or a scheduler can have rights to schedule Campaign A, but not Campaign B. Roles limited to generic (non-organizational and non-campaign) functions do not have scopes.

**ATTENTION**

The roles and associated access to the various functions, modules, sections, and tabs within Nortel Workforce Management are described in the documentation set as they would be for a new installation. If your systems has been upgraded from a previous release, your previous settings are maintained, making it possible that users might not have access to certain features. If you want to grant access to these features, you will need to manually modify the role's access rights, as described in Typical Privilege Sets. Refer to the Workforce Management Roles and Privileges Guide to determine what the various privileges control, as well as their default role assignments.

Workforce Management comes preconfigured with nine different roles:

- **Adhoc Query Analyst**—Adhoc Query Analysts by default have access only to the **Ad Hoc Reports** section of the **Reports** module. This section lets them create, edit, and delete ad hoc reports, which are created using the Cognos Query Studio.
- **Administrator**—Administrators can generally set up and administer the Workforce Optimization Suite's functions and organizations, such as Organization Setup, Security Setup, System Setup, Scorecards Setup, and Request Management Setup. Administrators are responsible for



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operational and business configuration, not for the functions typically performed by Information Technology (IT) organizations.

- **Agent**—Agents can generally view schedules, request timeoff, request shift swaps, participate in shift bidding, run Learning lessons, enter their time and activities, and view their scorecards.
- **Branch Administrator**—Branch administrators can generally set up and administer the Workforce Optimization Solution's functions and organizations, in the context of retail financial services, which use a subset of the Workforce Management features.
- **Branch Employee**—Branch employees can generally view schedules, and enter their time and activities, and view their scorecards. They are similar to agents, but in the context of retail financial services, which use a subset of the Workforce Management features.
- **Branch Manager**—Branch managers combine some of the functions of managers and schedulers (see below), again in the context of retail financial services, which use a subset of the Workforce Management features.
- **Manager**—Managers can generally manage people, view group schedules, approve agents' requests, view adherence status, authorize adherence exceptions, create and view reports, and view and configure employees scorecards.
- **Scheduler**–In addition to their use of Forecasting and Scheduling, schedulers can use Workforce Management's web application for a variety of tasks, including publishing schedules, viewing adherence data, managing requests, and viewing their own scorecards and organization scorecards.
- **Supervisor**–Supervisors have a more limited set of permissions than managers. They can view scorecards for themselves and their employees, and view highlights. They also can use the **Reports** module.

## Typical Privilege Sets

The Workforce Management solution's security system is based on privileges. Users, depending on their roles, are given a set of privileges in the system. These privileges include read only (view), read/write (configure) or no access to modules as well as specific fields in the web application. The access that supervisors have, for example, are different than those that managers have, and those are different than the access that your agents have.

Typical privileges for managers or supervisors include:

- Viewing schedules
- Viewing and/or editing employee information



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- Managing agent requests
- Viewing and/or editing time records
- Viewing current employee activities
- Authorizing adherence exceptions
- Creating and/or scheduling reports
- Viewing **Pulse**
- Viewing scorecards (depending on your license)

Schedulers may have any of the above privileges plus the ability to create schedules, publish schedules, and maintain employee information in Forecasting and Scheduling.

This list is not inclusive nor does it reflect the actual privileges set up in your system.

Lastly, supervisors and managers typically only have access to the organizations that they are in charge of. If access rights are set up correctly, when supervisors and managers access the system, they are only able to manage the employees for whom they are responsible.

### Typical Agent Privileges

The following list shows typical privileges for agents. This list is not inclusive and might have been modified to meet your organization's needs or by your license:

- Viewing schedules
- Entering schedule preferences
- Requesting shift swaps
- Requesting time off
- Bidding on shifts in auctions
- Viewing scorecards
- Accessing **Learning**
- Entering activities via the **My Time** section

## Creating and Editing Roles

Roles are created and edited under the **Roles Setup** tab of the **App Admin** module's **Security** section. This tab allows you to group privileges and secure fields to facilitate the assignment of these entities to users.

The **Roles Setup** tab lets you review, create, and update Workforce Management's roles.



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Use this page to set up roles for your organizations. The Workforce Optimization Solution comes with nine predefined roles. There is a very limited overlap between the roles—for example, both a manager and an administrator can add or edit people. Each of these roles can be modified to add or remove privileges.

- **Adhoc Query Analyst**—Adhoc Query Analysts by default have access only to the **Ad Hoc Reports** section of the **Reports** module. This section lets them create, edit, and delete ad hoc reports, which are created using the Cognos Query Studio.
- **Administrator**—Administrators can generally set up and administer the Workforce Optimization Suite's functions and organizations, such as Organization Setup, Security Setup, System Setup, Scorecards Setup, and Request Management Setup.
- **Agent**—Agents can generally view schedules, request timeoff, request shift swaps, and participate in shift bidding, enter their time and activities, and view their scorecards.
- **Branch Administrator**—Branch administrators can generally set up and administer the Workforce Optimization Solution solution's functions and organizations, in the context of retail financial services, which use a subset of the Workforce Management features.
- **Branch Employee**—Branch employees can generally view schedules, enter their time and activities, and view their scorecards. They are similar to agents, but in the context of retail financial services, which use a subset of the Workforce Management features.
- **Branch Manager**—Branch managers combine some of the functions of managers and schedulers (see below), again in the context of retail financial services, which use a subset of the Workforce Management features.
- **Manager**—Managers can generally manage people, view group schedules, approve agents' requests, view adherence status, authorize adherence exceptions, and create and view reports, and view and configure employees scorecards.
- **Scheduler**–In addition to their use of Forecasting and Scheduling, schedulers can use Workforce Management's web application for a variety of tasks, including publishing schedules, viewing adherence data, managing requests, and viewing their own scorecards and organization scorecards.
- **Supervisor**–Supervisors have a more limited set of permissions than managers. They can view scorecards for themselves and their employees. They also can use the **Reports** module.

To create a new role:



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| Step | Action |
|---|---|
| 1 | Click **Create New Role**. The Roles Setup page opens. |
| 2 | Type a name and short description for the role. |
| 3 | Select the privileges for the role. |
| 4 | Specify those employee fields that this role can edit in Forecasting and Scheduling and view in both Forecasting and Scheduling and the Workforce Optimization Solution. |
| 5 | Click **Save**. The role appears on the list. |

**—End—**

***Note:*** Basic and Advanced Scorecards only take into account the default predefined roles. If you create new roles, these roles will not be included in any of the KPIs.

If the role you are setting up needs to be able to view and edit employees in Forecasting and Scheduling, this role must have at a minimum **View** and **Edit** privileges for the **First Name** and **Last Name** fields, as well as privileges to view and configure organizations (**Foundation/Organization/View Organization** and **Foundation/Organization/View Organization/Configure Organization**).

In the current release, there are two new privileges under **Foundation > People> View People**. The **Add/ Edit People** privilege enables those with this role to create new people, edit user profiles, and terminate employees. The **Delete People (Permanently)** privilege enables those with this role to permanently remove people from the system. This functionality in previous releases was controlled by the **Configure Organization** privilege under **Foundation > Organization > View Organization**. The **Configure Organization** privilege is unchanged in the current release, except that it now only controls configuring organizations.

To edit a role:

| Step | Action |
|---|---|
| 1 | Select the role you want to edit. |
| 2 | Click **Edit Role**. The Roles Setup page opens. |
| 3 | Change the privileges for the role. |



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4 Click **Save**. The modified role appears on the list.

**—End—**

To delete a role:

| Step | Action |
|---|---|
| 1 | Select the role you want to delete. |
| 2 | Click **Delete Role**. |
| 3 | Click **OK** to confirm the deletion. |

**—End—**

***Note:*** A role is assigned to each user in the **Access Rights** tab of the **People** module. See "Using the Access Rights Tab" (page 102) for more information.

Given the way that access to the various modules, sections, and tabs of Nortel Workforce Management is segmented among the roles, and access to organizations, campaigns, and user groups controlled by users' access rights, it is recommended for ease of administration that one of your administrators be assigned all roles, with scope for all organizations, all campaigns, and all groups.



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# Managing Organizations

This chapter provides information about setting up organizations and organization-related components of Workforce Management.

It covers the following sections and tabs of the **App Admin** module:

- **Organizations**—View organizations and edit information that is specific to them:
  - **Settings**—View organizations and their subsidiaries. Set their time zone, week start day, and day boundary. See "Settings" (page 67).
  - **Holidays**—Create holidays for each organization, designate their start and end dates and whether they are paid. Edit and copy them to other organizations. See "Holidays" (page 68).
  - **Job Titles**—Create job titles for each organization. Edit and copy them to other organizations. See "Job Titles" (page 69).
- **Groups**—Create and/or edit an employee group. See "Groups" (page 71).
- **Queues**—View and manage your queues and their mappings:
  - **Settings**—Create and edit information about your queues. See "Settings" (page 73).
  - **Queue Group Mapping**—Map queues and data sources. See "Queue Group Mapping" (page 75).
  - **Parent Queue Mapping**—Allows you to map normal queues to a parent queue. See "Parent Queue Mapping" (page 76).
  - **Work Queue Configuration**—Only visible if you are licensed for Financial Services Operations. Allows you to define a normal queue as a VCT Queue and link it to an organization.
  - **Arrival Patterns**—Only visible if you are licensed for Financial Services Operations. Allows you to view and edit the patterns that have been created. The purpose of the arrival pattern is to be a close representation of the distribution of intraday work to be done.



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- **Activities**—Set up and configure activities and their supporting information for each organization:
  - — **Activity Types**—View activity types. Activity types are groups of similar activities. See "Viewing Activity Types" (page 82).
  - — **Activities**—View activities. Activities represent work an employee can perform. See "Viewing Activities" (page 84).

# Organizations

Use this page to create, view and edit organizational structures and associated information within Workforce Management. This section contains the following tabs:

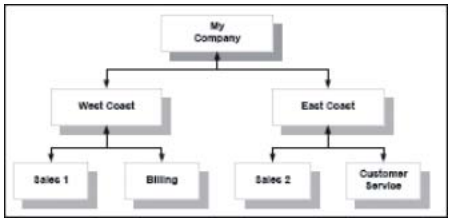
- **Settings**
- **Holidays**
- **Job Titles**

## Understanding Organizational Hierarchies

When you enter employee information, you have the option of arranging your employees into multiple organizations at multiple levels. The organizations you create are hierarchic—in other words, since information flows up and down the organization, data you enter at any level will be reflected up or down the organizational chain.

> ***Note:*** You do not have to use a hierarchical structure, although it is highly recommended. All employees can be added to a single organization if you want.

In the figure below, My Company has two geographic divisions, West Coast and East Coast. Each division has several subdivisions based on function and supervision. Information in the hierarchy flows both up and down.




### Information Flow

Organization information entered in this module flows downward from the organization where it is entered to its suborganizations. Some information, such as holidays and job titles, can be copied to a different organization and changed there. Some information, such as employee information, is entered at the lowest level and is visible to managers higher in the hierarchy.



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## Settings

Use this tab to view organizations' names and descriptions. Administrators can also create new organizations using this tab.

To create a new organization (administrators only):

| Step | Action |
|---|---|
| 1 | Select the parent organization in the left pane. |
| 2 | Click **Create New Organization**. |
| 3 | Type the organization's name and a brief description. |
| 4 | Select the organization's time zone. This will be the default time zone for the organization and cannot be changed once it is set. |
| 5 | Select the organization's Week Start Day. This setting cannot be changed once the organization has been created. |
| 6 | Click the clock icon to set the Day Boundary time. This setting cannot be changed once the organization has been created. |
| 7 | Click **Save**. The new organization is ready. |

**—End—**

To edit an organization's name or description (administrators and schedulers only):

| Step | Action |
|---|---|
| 1 | Select the organization in the left pane. |
| 2 | Type the organization's name and a brief description. |
| 3 | Click **Save**. The organization is ready. |

**—End—**

To delete an organization (administrators only):



**CAUTION**
When you delete an organization, you delete ALL data associated with that organization including any suborganizations and their data.



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| Step | Action |
|---|---|
| 1 | Select the organization in the left pane. |
| 2 | Click **Delete**. Confirm that you want to delete the organization and all its associated data. The organization and all its suborganizations are deleted. |

**—End—**

### Organization Summary

This page expands. See "Expanding Pages" (page 38).

Expand this page to view a summary of your organizations and their structure. You can also add, edit, or delete organizations (see above) from this page.

## Holidays

Administrators can use the **Holidays** tab to add, edit, or delete holidays and copy them to other organizations. Holidays are used in time intervals to ensure employees receive the appropriate pay. For managers and schedulers, this tab is read-only.

***Note:*** Be sure to set the year in the upper right of the page.

To create a new holiday:

| Step | Action |
|---|---|
| 1 | Select an organization in the left pane. |
| 2 | Click **Create New Holiday**. The New Holiday page opens. |
| 3 | Type the Holiday's name. |
| 4 | Select **Paid** if the holiday is paid. |
| 5 | Click the date range selector icon to select the holiday's **Start Day** and **End Day**, and, optionally, start and end times. |
| 6 | Click **Save**. The new holiday is listed. |

**—End—**

To copy a holiday to a different organization:



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| Step | Action |
|---|---|
| 1 | Select the holiday in the right pane. |
| 2 | Click **Copy Holiday**. The **Copy Holiday** dialog box opens. |
| 3 | Select the organization(s) to copy the holiday to and click **Copy to Selected Organization(s)**. |

**—End—**

To edit a holiday:

| Step | Action |
|---|---|
| 1 | Select the holiday in the right pane. |
| 2 | Click **Edit Holiday**. |
| 3 | Make the desired changes and click **Save**. |

**—End—**

To delete a holiday:

| Step | Action |
|---|---|
| 1 | Select the holiday in the right pane. |
| 2 | Click **Delete Holiday**. Confirm the deletion by clicking **OK**. |

**—End—**

## Job Titles

Administrators can use this page to create, edit, copy, and delete job titles. In Scorecards, KPIs are reported based on job titles. For managers and schedulers, this tab is read-only.

To create a new job title:

| Step | Action |
|---|---|
| 1 | Select an organization in the left pane. |
| 2 | Click **Create New Job Title**. The **Create New Job Title** page opens. |



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3 Type the job title and a short description.

4 Click **Save**. The new job title is listed.

**—End—**

To copy a job title to a different organization:

| Step | Action |
|---|---|
| 1 | Select the job title in the right pane. |
| 2 | Click **Copy Job Title**. The **Copy Job Title** dialog box opens. |
| 3 | Select the organization to copy the job title to and click **Copy to Selected Organization(s)**. |

**—End—**

To edit a job title:

| Step | Action |
|---|---|
| 1 | Select the job title in the right pane. |
| 2 | Click **Edit Job Title**. |
| 3 | Make the desired changes and click **Save**. |

**—End—**

To delete a job title:

| Step | Action |
|---|---|
| 1 | Select the job title in the right pane. |
| 2 | Click **Delete Job Title**. Confirm the deletion by clicking **OK**. |

**—End—**

***Note:*** As previously mentioned, job titles are integral to Scorecards, and allow you to customize KPI goal values for specific job titles. (See *Job Titles* for more information on customizing goal values for job titles.)



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# Groups

The **Groups** section allows you to create and/or edit an employee group. Groups are used in employee filters and in assigning lessons.

The left side of the page consists of a list of the names of available employee groups. Only those groups for which you have access rights are displayed. You can click any of the employee group names for the purpose of editing.

The right side of the page consists of the editable parameters of a group, including the employee group's name, description, and the list of members in the employee group.

Creating an employee group involves specifying the employee group name, the description of the employee group, and setting the members of the employee group.

To create an employee group:

| Step | Action |
|---|---|
| **1** | Click **Create**, at the bottom right of the page, which will clear out any existing information. |
| **2** | Enter the new name of the employee group; these names must be unique. If you encounter an error message indicating your group name exists, but that name does not appear in the list of group names in the left side of the page, you have entered the name of an already existing group for which you do not have access rights. |
| **3** | Optionally, enter the description of the employee group; this description will become useful later when displaying the **Employee Group Summary** page. |
| **4** | Under the list of available employees, there is a selectable employee filter. Make a selection from one of the existing employee filters or select no filter. A list of employees available to you for assignment to the employee group is displayed. Select employees from the left side of the assignment pane, then click the right facing arrow button to assign those selected employees to the group. Employees already assigned on the right side of the page do not show up on the left side. |
| **5** | Click **Save** to save your employee group. Your newly created employee group name should now appear on the left side of the page. |

**—End—**

Editing an employee group is similar to creating an employee group, except that the employee group name field need not be edited.



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To edit an employee group:

| Step | Action |
|---|---|
| 1 | Select an employee group on the left side of the page. The selected group's information appears on the right side of the page. |
| 2 | Edit the employee group's description, if desired. |
| 3 | Use the left facing arrow button to remove employees from the group, and the right facing arrow button to add employees to the group. |
| 4 | Use the filter to augment the list of selectable employees. |
| 5 | Click **Save** to save your employee group. Your newly created employee group name now appears on the left side of the page. |

**—End—**

To delete an employee group:

| Step | Action |
|---|---|
| 1 | Select an employee group on the left side of the page. The selected group's information appears on the right side of the page. |
| 2 | Click **Delete**. |
| 3 | Confirm the deletion.<br>The group name no longer appears on the left side of page. |

**—End—**

To rename an employee group:

| Step | Action |
|---|---|
| 1 | Select an employee group on the left side of the page. The selected group's information appears on the right side of the page. |
| 2 | Enter the new group name in the **Name** field. |
| 3 | Click **Save** to save your employee group with its new name; the old group name no longer displays.<br>The renamed group name appears on the left side of page. |



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**—End—**

To view summary information for available employee groups:

| Step | Action |
|---|---|
| 1 | Click the right-pointing triangle between the left and right halves of the page.<br><br>The group summary information is displayed, showing, in tabular form, the employee group names, the group description, and the number of employees belonging to the group. |

**—End—**

# Queues

The **Queues** section lets you create queues, edit information about them, and assign or unassign queue groups to the queue. The queues you define here are used in Forecasting and Scheduling and associated with Forecasting and Scheduling's campaigns.

In Workforce Management, queues are essentially a mechanism used to aggregate a volume of work. Queues can be identical to an ACD queue, but are not necessarily limited to a one-to-one mapping. See the note on distributed and virtual queues in"Settings" (page 73) for more information.

## Settings

Use this tab to create and edit information about your queues.

To create a queue:

| Step | Action |
|---|---|
| 1 | Click **Create Queue**. |
| 2 | Type a queue name and a short description. |
| 3 | Select the media for the queue from the drop-down list. |
| 4 | Select the type of the queue from the drop-down list (**Distributed**, **Normal**, or **Virtual**).<br><br>***Note:*** Distributed and Virtual queues are used in multi-site scheduling in Forecasting and Scheduling. |



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Normal queues collect contact statistics from data source groups and can be used in regular campaign operations. Most queues are Normal queues. If you do not have a Multi-Site license, all of your queues are Normal queues.
Virtual queues are a type of parent queue. They aggregate contact statistics from multiple mapped normal (child) queues, and are used in virtual campaign operations. Virtual queues enable you to easily aggregate data from multiple data sources by mapping groups from each data source to a normal queue, then mapping multiple normal queues, possibly from several data sources, to a single virtual queue.
Distributed queues are another type of parent queue. They aggregate contact statistics from multiple mapped normal (child) queues, and are used in distributed campaign operations.
Like virtual queues, distributed queues enable you to easily aggregate data from multiple data sources to use for centralized forecasting. With distributed queues in a distributed campaign structure, you can then allocate the forecast among the normal child queues, allowing for decentralized scheduling.
Refer to the chapter on multi-site scheduling in the *Workforce Management Forecasting and Scheduling Guide* for more information.

**5** Click **Save**. The new queue is saved.

***Note:*** Queues whose media is **Phone Outbound** can only be Normal queues.

**—End—**

To copy a queue:

| Step | Action |
|---|---|
| **1** | Select the queue to be copied on the selection pane.<br>The workpane refreshes to display the selected queue. |
| **2** | Click **Copy Queue**. The new queue is saved and the screen refreshes to display it. (The new queue's name consists of the name of the copied queue with the text **Copy of** prefixed to it.) |

**—End—**

To delete a queue:


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| Step | Action |
|---|---|
| 1 | Select the queue to be deleted on the selection pane.<br>The workpane refreshes to display the selected queue. |
| 2 | Click **Delete Queue**. Confirm the deletion by clicking **OK**. |

**—End—**

To edit a queue:

| Step | Action |
|---|---|
| 1 | Select the queue to be edited on the selection pane.<br>The workpane refreshes to display the selected queue. |
| 2 | Type a queue name and a short description. |
| 3 | Select the media for the queue from the drop-down list. |
| 4 | Select the type of the queue from the drop-down list (**Distributed**, **Normal**, or **Virtual**). |
| 5 | Click **Save**. The changes to the queue are saved. |

**—End—**

## Queue Group Mapping

Use this tab to map queues.

To map queues:

| Step | Action |
|---|---|
| 1 | Select the queue that has to be edited on the selection pane. |
| 2 | Select the data source for which groups are to be assigned. The default selection is **All Data Sources**.<br>The left list displays the groups for the selected data source. Those queues that are already mapped will show the text **Mapped** in the column to the right.<br>The right list displays all the groups that are currently assigned to the queue. |



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3 Assign/unassign groups to the queue using the assignment box.

4 Click **Save Mapping**.

5 Click **Go to Data Source Group Definition** to go directly to the data source group list page.

**—End—**

## Parent Queue Mapping

If your site is licensed for distributed multi-site scheduling, you will see the **Parent Queue Mapping** tab, which you use to map normal queues to distributed or virtual queues.

To map normal queues to a parent queue:

| Step | Action |
|---|---|
| 1 | In the selection pane, select the queue that is to be edited.<br>The left list displays the available normal queues from which you can select.<br>The right list displays all the selected queues that are currently assigned to the parent queue (the parent queue is the queue that is selected in the selection pane). |
| 2 | Assign/unassign queues to the queue using the assignment box. |
| 3 | Click **Save Mapping**. |

**—End—**

To revert your changes, click **Revert**.

To sort the list of queues by name, click the header (the word **Queue**) of the assignment box.

***Note:*** Only normal queues are allowed to be mapped to a parent queue. Only distributed or virtual queues are allowed to be parent queues.

Distributed queues are used in campaigns where calls are distributed among multiple sites using a percent allocation method. This type of queue can only be added to a campaign that has at least one defined sub-campaign.



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Virtual queues are used in campaigns where calls are distributed among multiple sites using a dynamic method of distribution. Only certain types of ACDs support dynamic distribution, such as Cisco, Genesys, Avaya BSR, and Look Ahead Interflow. You can add this type of queue only to a stand-alone campaign. Campaigns that are sub-campaigns or that allow sub-campaigns cannot have virtual queues.

## Work Queue Configuration

Use the **Work Queue Configuration** tab to define a normal work queue as a VCT Work Queue and link it to an organization. A VCT Work Queue not only has volumes associated with it, but also captures employee level productivity data at a finer intraday granularity. This work queue is then available for agents, managers, and supervisors to enter VCT data or productivity tracking data either through the **Work** and **History** tabs of **My Volumes** section of the **My Home** module, or **Volumes** section of the **Tracking** module, or through the Operations – Event File Import and Transform adapter.

There are three types of patterning supported:

- Operational Hours—Arrivals for each day are distributed evenly over the organization's hours of operation.
- Named Patterns—Arrivals for each day are distributed based on definitions you provide.
- No Pattern—Arrivals are converted to volumes as is, at the times they actually occur, without any spread. This pattern can be used if you want volumes to follow the true arrival pattern, and if arrivals are frequent during the organizational hours.

### Work Queue Name

Work queues are listed in the Selection pane on the left. You must select the work queue you want to view in this pane.

To view information, click one work queue to highlight it. Only individual work queues can be selected to view the corresponding information in the data pane. Groups of work queues cannot be selected.

### Work Queue Configuration

This pane is used to specify the parameters for a VCT work queue. There are three types of VCT work queues:

1. **Work Completed, WIP and Inventory:**This work queue type has all the VCT Event types of **CHECKIN**, **CHECKOUT** and **ARRIVAL** enabled.
2. **Work Completed and Inventory:** This work queue type has only **ARRIVAL** and **CHECKIN** events enabled; a **CHECKOUT** event of equivalent value is automatically generated for each **CHECKIN** event, so there is no **WIP**, only **Work Completed**.



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3. **Work Completed:** This work queue type has only the **CHECKIN** event enabled, which in turn generates an **ARRIVAL** and a **CHECKOUT** of equivalent values.

The parameters you can specify are:

- **As of:** Use this date selector to view and/or set the Activity Handling Time for a specific date.
- **Use Volume Capture:** Select this option to specify the work queue as a VCT work queue.
- **Type:** Select the work queue type:
  - **Work Completed, WIP and Inventory**
  - **Work Completed and Inventory**
  - **Work Completed**
- **Organization:** Select the organization. ( Only employees belonging to this organization and its child organizations will have access to the work queue.)
- **Activity Handling Time (in seconds):** Enter the activity handling time (in seconds) for the work queue. Click the pencil icon to the right of the field to enter effectivity dates for the Activity Handling Time.

  The top portion of the pop-up window shows the history of effective dates that have been applied to the selected work queue.

  The lower part allows you to specify a new Activity Handling Time, and gives you the following options for setting dates:

  1. **Update value for current period:** This selection is the default, and replaces the displayed value for whichever time period it is currently saved. If you always save using this option, it has the same effect as having no effective dates and always resetting the current value. If you are using effective dates, this option updates the AHT for the current applicable period, which will not result in any new mediation in start date or end date.

     ***Note:*** Editing the AHT value on the Work Queue Configuration page has the same effect as using the Effectivity Pop-Up window with the **Update value for current period** option.

  2. **Insert value for period from:** Allows you to set the new value from the beginning of the period being viewed into the future to a specified date. If you are using effective dates, a new interval is created. For example, if you have previously set AHT to 10 between 1-1-2006 through no specified end date (that is, forever), and now use this option to set AHT to 20 from 3-1-2008 to 4-1-2008, the end result is similar to the following:



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**1-1-2006 - 3-1-2008: 10**
**3-2-2008 - 4-1-2008: 20**
**4-2-2008 - forever: 10**

3. **Insert value from:** Allows you to set the new value from the beginning of the viewed period into the future, with no specified end date. If you are using effective dates, a new interval is created or deleted. For example, if you have set AHT to 10 from 1-1-2006 through no specified end date, and now use this option to set AHT to 20 from 3-1-2008 to no specified end date, the end result is:

   **1-1-2006 - 3-1-2008: 10**
   **3-2-2008 - forever: 20**

- **Arrivals Pattern:** Select the Arrival Pattern; the Operations – Arrival Processing adapter uses this pattern to convert the sum total of arrivals into volumes for every 15-minute bucket over the pattern window.
- **Multi Selection:** Selecting the **Add** option allows for creating single and/or multi-selection VCT chains. A VCT chain links a source work queue to one or more target work queues by a source VCT Event and a target VCT Event, and by a certain proportion. It represents the flow of work from one VCT work queue to another based on a set of VCT Event trigger rules.

## Arrival Patterns

Use the **Arrival Patterns** tab to view and edit the patterns that have been created. The Operations – Arrival Processing adapter can be configured to use an arrival pattern defined here to convert **ARRIVAL** VCT Events into volumes by applying the arrival pattern to the sum of **ARRIVALS** over a defined window. The purpose of the arrival pattern is to be a close representation of the distribution of intraday work to be done.

From this tab, the following options are available from the options displayed in the lower right of the pane:

- **Import**— Click this option to import a new pattern.
- **Create**—Click this option to manually create a new pattern.
- **Edit**—Select an existing pattern and click this option to change the pattern's settings.
- **Delete**—Select an existing pattern and click this option to delete the pattern.

### Importing Arrival Patterns

Clicking the **Import** button opens a page that allows you to import a pattern created from information contained in an external source file. The fields in the source file can be delimited either by **Tab** characters or commas.



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The page contains two areas:

**File Setup** Use the fields in this section to specify the following:

| Field | Description |
|---|---|
| **File to Import** | The path and name of the external file to be imported. |
| **Name** | The name assigned to the pattern. |
| **Alignment Date** | The date the pattern was created. |
| **Duration (in days)** | The number of days for which the pattern applies. |
| **Delimiter** | Use the drop-down menu to select either **Tab** or **Comma** as the field delimiter used in the file. |

**Field Name and Column Number** Use the Field Name checkboxes and Column Number fields to specify the fields to be imported, as follows:

| Checkbox or Field | Description |
|---|---|
| **Date** | Used to identify the column in the external file that contains the date. |
| **Time** | Used to identify the column in the external file that contains the time. |
| **Weight** | Specifies the percentage allocation for each 15-minute interval. |
| **Column Number** | Specifies the order (1, 2, 3, etc.) in the external file of the date, time, or weight column. |

## Creating or Editing Arrival Patterns

The following fields can be edited:

| Field | Description |
|---|---|
| **Name** | A pattern name that you assign. |
| **Description** | A description of the pattern. This field is optional and provided for your convenience. |
| **Alignment Date** | The date the pattern was created. |
| **Duration (in days)** | The number of days for which the pattern applies. |
| **Delimiter** | Use the drop-down menu to select either **Tab** or **Comma** as the field delimiter used in the file. |
| **Daily Pattern** | The quarter-hour distribution percentage of the pattern. |



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# Organization Activities Settings

Use these pages to set up and use activities and activity types, to map adhering activities to each other, and to map activities and data source reason codes.

The next section introduces and defines activities and activity types.

## Introducing Activities, Activity Types, and Adherence

Activities are the basic building blocks of Workforce Management. They specify the scheduled work as well as the actual work. When agents log onto the system and perform any kind of work, activities specify the scheduled work and capture the agents' adherence to their schedules.

### Activities

Activities represent work that agents can perform. Each activity has a name, a description, a setting specifying if the activity is paid, a color, a code, a tolerance, and an activity type.

- If an activity is marked as paid, any time an agent logs into this activity, the resulting entry will also be marked as paid. A manager can override the paid/unpaid status of any time entry on the Day Details page.
- The color and code of an activity are used to display schedules and time records on the Calendar, Schedule Viewing screens, Adherence screen, and other screens.
- An activity's tolerance specifies how long an agent can be out of adherence to a scheduled activity before an exception appears. For example, the Phone activity is assigned a tolerance of 5 minutes. An agent is scheduled to log onto the Phone activity at 9:00 a.m. Instead, he logs on at 9:05 a.m. He was not adhering for 5 minutes and the tolerance is 5 minutes, so no adherence exception will be displayed. However, if the agent logged in at 9:10 a.m., the full 10 minutes from 9:00 a.m. to 9:10 a.m. would show up as an exception.
- Finally, every activity must have an activity type.

### Activity Types

Activity types are folders that contain similar activities; they make selecting an activity easier for **My Time** users. Each activity type has a name, a description, and a setting specifying whether or not **My Time** users can see this activity type.

Workforce Management comes preconfigured with the following activity types:

- **Absence Activities** (such as vacation or jury duty)
- **Assigned Work Activities** (such as phone or research)
- **Desktop Monitoring** (if included in your license)



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- **Learning Activities**
- **Planned Events** (such as training or a staff meeting)
- **Shift Events** (such as lunch or a coffee break)

For example, **Assigned Work Activities** could contain the **Phone** activity and the email activity. It should be marked visible to **My Time** users since agents are expected to log into these activities through the **My Time** module.

**Absence Activities** might contain the **Sick** activity and **Jury Duty** activity. This activity type would be marked as not visible to **My Time** users as agents are not expected to log into the **Sick** activity. Instead, managers would create records containing the **Sick** activity when an agent calls in sick.

### Viewing Activity Types

Use the **Activity Types** tab to list the Activity Types for each organization. Each activity type serves as an organizer for activities. They are used to make selection of activities simpler in other parts of Workforce Management.

Activity types can be added and modified here, or in Forecasting and Scheduling.

Workforce Management comes preconfigured with the following activity types:

- **Absence Activities** (such as vacation or jury duty)
- **Assigned Work Activities** (such as phone or research)
- **Desktop Monitoring** (if included in your license)
- **Learning Activities**
- **Planned Events** (such as training or a staff meeting)
- **Shift Events** (such as lunch or a coffee break)

Click at the top of a column to sort by that column. Click again to reverse the sort order.

To create an activity type:

| Step | Action |
|---|---|
| **1** | Select an organization in the left pane. |
| **2** | Select the activity type in the right pane. |
| **3** | Click **Create Activity Type**. The **Activity Type Details** window is displayed. |
| **4** | Fill in as appropriate the fields described in the following table: |



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| Field | Description |
|---|---|
| **Organization Name** | Name of the organization to which the Activity Type is assigned. |
| **Name** | Name of the Activity Type. |
| **Description** | Description of the Activity Type. |
| **Visible in My Time** | Specifies if the activity type is visible to users of the My Time section. |

5 Click **Save** to create the activity type and return to the Activity Types page.

Click **Cancel** to abandon any changes you made and return to the Activity Types page.

Click **Revert** to undo any unsaved changes on the page.

**—End—**

To edit an activity type:

| Step | Action |
|---|---|
| 1 | Select an organization in the left pane. |
| 2 | Select the activity type in the right pane. |
| 3 | Click **Edit Activity Type**. |
| 4 | Change the settings for the **Name**, **Description**, and **Visible in My Time** parameters as desired. |
| 5 | Click **Save** to save your changes and return to the Activity Types page.<br>Click **Cancel** to abandon any changes you made and return to the Activity Types page.<br>Click **Revert** to undo any unsaved changes on the page. |

**—End—**

To delete an activity type:

| Step | Action |
|---|---|
| 1 | Select an organization in the left pane. |



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2 Select the activity type in the right pane.

3 Click **Delete Activity Type**.

4 Click **OK** to delete the Activity Type, or **Cancel** to return to the Activity Types page without deleting the Activity Type.

**—End—**

## Viewing Activities

Use this tab to list the activities for each organization. Activities represent types of work an employee can perform. Activities are added and modified here, or in Forecasting and Scheduling.

Click at the top of a column to sort by that column. Click again to reverse the sort order.

To create an activity:

**Step Action**

1 Select an organization in the left pane.

2 Click **Create Activity** . The **Activity Details** window is displayed.

3 Fill in the fields described in the following table as appropriate:

| Section | Field | Description |
|---|---|---|
| **Activity Details** | **Organization Name** | Name of the organization to which the activity is assigned. |
| | **Name** | Name of the activity. |
| | **Description** | Description of the activity. |
| | **Activity Type** | The Activity Type to which this activity belongs. |
| | **Paid** | Specifies if the activity is paid. |
| | **Color** | The color used to display schedules and time records on the **Adherence** page. |
| | **Activity Code** | The code used for displaying the activity. |
| | **Time Off** | Whether this activity can be used for time off. |
| | **Media** | The media to which this activity is mapped. |



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| Section | Field | Description |
|---|---|---|
| **Scheduling Usage** | **Use in Shift (Primary Activity)** | Specifies if the activity can be used in a shift. |
| | **Use in Shift Event** | Specifies if the activity can be used in a shift event. |
| | **Use in Calendar Event** | Specifies if the activity can be used in a calendar event. |
| | **Unavailability** | Specifies if the activity can be used in an unavailability. |
| **Request Management Usage** | **Use in Request** | Specifies if the activity can be used in a request. |
| | **Time Off With Allotment** | Specifies if a time-off activity has been specified as having an allotted number of hours per week or per month for the owner organization. |
| **Activity Manager Usage** | **Adherence Tolerance Minutes** | The number of minutes an employee can be out of adherence in the scheduled activity before an exception is created. This **Out of adherence** exception will show on the **Adherence** page and will create an **Out of adherence** alert for that scheduled activity if an applicable alert rule has been defined and enabled. |
| | **Maximum Time In Activity** | The maximum amount of time an agent can remain in the recorded/actual activity before a **Too long in activity** exception is created. The **Too long in activity** exception will show in the **Quick View** tab. |
| | **Who Is In State** | Specifies the state that the activity represents for the Who Is In display. |
| **Scorecards Usage** | **Scorecards Source Measure** | Only shown if you are licensed for Scorecards. A source measure reflects a type of measurement used to evaluate a person's or an organization's performance. To make analyzing activity |



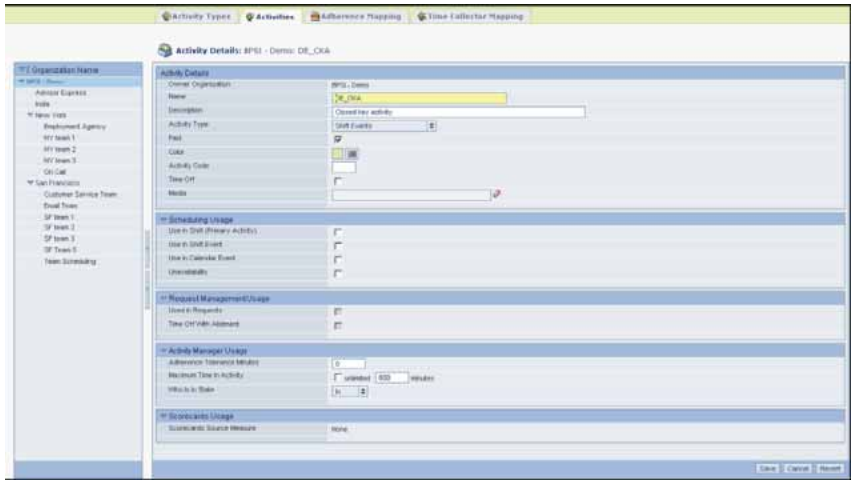
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| Section | Field | Description |
|---|---|---|
| | | data more practical and meaningful for Scorecards, activities are mapped to a smaller group of source measures. This field specifies the source measure to which the activity has been mapped. |

**—End—**

To edit an activity:

| Step | Action |
|---|---|
| 1 | Select an organization in the left pane. |
| 2 | Select the activity in the right pane. |
| 3 | Click **Edit Activity**. The following window is displayed. |



**—End—**

To copy an activity:

| Step | Action |
|---|---|
| 1 | Select an organization in the left pane. |



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2 Select the activity in the right pane.

3 Click **Copy Activity**.

4 Select the organization(s) to which you want to copy the information.

5 Click **Copy to Selected Organization(s)**.

**—End—**

To delete an activity:

| Step | Action |
|---|---|
| 1 | Select an organization in the left pane. |
| 2 | Select the activity in the right pane. |
| 3 | Click **Delete Activity**. |
| 4 | Click **OK** to delete the activity, or **Cancel** to return to the **Activities** page without deleting the selected activity. |

**—End—**



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# People Administration

This chapter provides information on viewing employee information, assigning user names and passwords, and access privileges.

It covers the following topics:

- **Profiles**—View and update certain information about employees. See *The Profiles Tab*.
- **Users**—View and update employees' user names and passwords. See *Using the Users Tab*.
- **Access Rights**—View and edit employee roles and privileges. See *Using the Access Rights Tab*.

Two additional tabs by default are only shown to managers, supervisors, and schedulers. These tabs are:

- **Schedules**—View employees' schedule information.
- **Time Off**—View and update employees' time-off information.

## The Profiles Tab

Use the **Profiles** tab to add, review, or change certain information about your employees. The right pane of the **Profiles** tab is identical to the **My Profile** page, except that you can create, edit, terminate, and delete employee records from this page.

Employees are listed in the left pane of the **Profiles** tab. You must select the employees you want to view in this pane.

You can filter the employees shown using the **View** drop-down menu.

### Filtering Employees

You can create and save filters for the employees that appear in the **People** list in the left pane.

To create a People filter:



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| Step | Action |
|---|---|
| 1 | In the left pane above the employee names, in the View field, select **Create Filter**. The **People Filter Configuration** page opens. |
| 2 | In the upper left pane, select the organization(s) to filter. Organizations for which you do not have view privileges are grayed out.<br><br>Selecting an organization automatically selects all its suborganizations. |
| 3 | Select a time frame for the filter if you are filtering on fields that have effectivities (a specific date or range of dates for which the value is effective), such as organization, supervisor, rank, etc., or a time element such as adherence status.<br><br>There are five options:<br><br>• **Now:**The active Organization, Supervisor, Rank, Agents currently in adherence, etc. For most filter fields, this setting is the same as **Today**.<br><br>• **Today:**From the current time to 24 hours ago. For the filter field **Adherence Status**, **Today** means "different than now," so all employees who were out of adherence in the last 24 hours would be returned.<br><br>• **Viewing Context:** The date range selected in the work pane is used to evaluate the filter. The filter is dynamically evaluated and the list of employee is refreshed if it changed when the date range in the work pane changed. In screens that do not have this feature enabled or where the work pane does not have a date or date range, the filter is evaluated using the option **Now**.<br><br>• **Last <X> days:** From the current time to **<X>** 24 hour periods ago. This option is useful for scheduled reports when you want a moving time window.<br><br>• **Time Window:** Select the applicable date range. For example, if the filter field is **Organization**, the filter will return any employee who was a member of that organization at any time within the specified time window. |
| 4 | For each item you want to filter by, type a value or make a selection from the drop-down menu. The menus contain only information applicable to the selected organization(s). If you change the organization, the data will be refreshed. |



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5 Select **Default Filter** if you want to display this filter automatically when the module is opened.

6 Click **Save As**, type a name for the filter, and click **Save**.

**—End—**

To edit an existing filter:

| Step | Action |
|---|---|
| 1 | In the left pane above the employee names, in the View field, select the filter, then select **Edit Filter**. The **People Filter Configuration** page opens with the filter's settings. |
| 2 | For each field you want to change, select or deselect an operator and type or select a value from the list. Click **Clear** to remove all settings. |
| 3 | Click **Save** to save the changes or click **Save As** to save the changes as a new filter. |

**—End—**

To delete a filter:

| Step | Action |
|---|---|
| 1 | In the left pane above the employee names, in the View field, select the filter, then select **Edit Filter**. The **People Filter Configuration** page opens with the filter's settings. |
| 2 | Click **Delete** and confirm the deletion when asked. |

**—End—**

## Viewing Employee Information

To view information for the employees you want:

| Step | Action |
|---|---|
| 1 | Filter the employees as you want, using the **View** drop-down menu. |
| 2 | Click one or more employees to highlight them. |



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- Use the **Ctrl** key to select groups of employees, or click **Select All** to highlight all the employees.
- Click **Select None** to deselect all the employees.

**3** Click **View**.

**—End—**

The work pane (right side) of the **Profiles** tab consists of a number of containers:

- The topmost container allows you to enter an employee's last name, first name, middle initial, suffix (such as Jr. or Sr.), and birth date.
- The **Contact Information** container allows you to enter the employee's e-mail address, pop-up address, home phone number, work phone number, and cell phone number.

  An e-mail address is required if the employee is to receive e-mail alerts. A pop-up address might be required to receive pop-up alerts. The address supplied in this field should be the employee's Windows user name. If the employee's Workforce Management Express user name (as defined in the User tab) is identical to the employee's Windows user name, you do not have to supply a value for the pop-up address.
- Use the **Home Address** container to record the employee's home address.
- Use the **Administrative Details** container to enter such things as the employee's ID, tax ID, wage, start date, job title, etc.
- In the **Data Source** container, for each data source providing information about that employee, record the relevant Agent ID used by that employee for that data source. If your site uses Quality Monitoring version 7.8 SP1, and you are licensed for Advanced Adherence, click the **Quality** checkbox to associate that data source with employees who are also defined in the Quality Monitoring version 7.8 SP1 system. The information from the Quality data source can be used in both Forecasting and Scheduling, and as part of the employee's adherence information.

  If your site uses Full-time Recording, locate the data source for the employee, which can be a Phone or Dialer switch, or a LAN, and then type or import the Agent ID and/or Phone Extension. For the Phone Extension, you can also click the pencil icon to show the Select Extension window, choose the extension, and then click **Set**. For information on importing data sources for Full-time Recording, refer to **Data Source Import Formats** in the *Enterprise Manager Administration Guide*.



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***Note:*** Depending upon the seating arrangement set-up in the Phone data source—Free, Fixed, or Hybrid—you might have to type the Agent ID, extension, or both. For the Phone Extension, you can also click the Pencil icon to show the **Select Extension** window, choose the extension, and then click **Set**.

See *Data Sources* for more information on data sources.

## Creating and Editing Employee Information

To create a new employee:

| Step | Action |
|---|---|
| 1 | Click **Create**.<br><br>The **New Person** page is displayed. |
| 2 | Type the employee's information or select it from the drop-down list for those fields that are editable (white background). If a pencil icon is displayed next to a field, click it to open an editing window.<br><br>Depending on which type of information you're editing when you click the pencil icon, a different pop-up window is displayed:<br><br>• **Wage Amount/Rank**<br><br>This window displays all of the historical information for either Wage Amount or Rank, and allows you to update these values for a specific time period. Either Wage Amount or Rank information is shown, depending on which you are attempting to edit.<br><br>This window consists of two containers:<br><br>— **History**<br><br>The first container shows the history with the amount information and the corresponding period for which the value is effective.<br><br>***Note:*** This container is not shown when you are editing multiple employees.<br><br>— **Update**<br><br>The second container allows you to update the amount information and specify the date range for which the amount is applicable. There are three options for specifying a date range:<br><br>– **Update value for current period:** Allows you to set a new value based on the effective date period of the current value displayed. |



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***Note:*** The value displayed is always based on the **As of** date on the **Profile** tab.

– **Insert value for period from:** Allows you to set a new value for the specified range. The start date is the **As of** date on the **Profile** tab; you specify the end date.

– **Insert value from:** Allows you to set a new value from the **As of** date on the **Profile** tab to the end date of the employee.

- **Organization-Related Fields**

  This window displays all of the historical information for the **Organization** field and related fields such as **Supervisor**, **Team Lead**, and **Job Title**, and allows you to update these values for a specific time period.

  This window consists of two containers:

  — **History**

  The first container shows the history with the field information and the corresponding period for which the value is effective for.

  ***Note:*** This container is not shown when you are editing multiple employees.

  — **Update**

  The second container allows you to update the field information and specify the date range for which the value is applicable. There are three options for specifying a date range:

  – **Update value for current period:** Allows you to set a new value based on the effective date period of the current value displayed.

  ***Note:*** The value displayed is always based on the **As of** date on the **Profile** tab.

  – **Insert value for period from:** Allows you to set a new value for the specified range. The start date is the **As of** date on the **Profile** tab; you specify the end date.

  – **Insert value from:** Allows you to set a new value from the **As of** date on the **Profile** tab to the end date of the employee.



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Regardless of which type of field you are editing, you update the information by specifying the date range, updating the value, and clicking **Set** to return to the **New Person** page.

**3** Click **Set** to save your changes and return to the **Profile** tab.

**—End—**

Editing an individual employee is very similar to creating a new employee:

| Step | Action |
|---|---|
| **1** | Select the employee you wish to edit in the left pane. |
| **2** | Type the employee's information or select it from the drop-down list for those fields that are editable (white background). If a pencil icon is displayed next to a field, click it to open an editing window.<br><br>As is the case when you create an employee, depending on which type of information you're editing when you click the pencil icon, a different pop-up window is displayed. Refer to *Wage Amount/Rank* for a description of the windows used for editing wage amount/rank or organization-related fields. |
| **3** | Once you have finished editing the fields, click **Set** to save your changes. |

**—End—**

You can edit certain information for multiple employees at a time (referred to as *multi-editing*). This information includes:

- rank
- start date
- end date
- organization
- supervisor
- team lead
- job title
- data association to a Quality Monitoring version 7.8 SP1 data source

To use the multi-editing feature:



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| Step | Action |
|---|---|
| 1 | In the left pane, select the employee(s) to view. Use **Ctrl** to select to select additional non-contiguous employees; use **Shift** to select a range of contiguous employees. |
| 2 | Click **View**. The information for the selected employees is displayed. |
| 3 | Edit the information as required. |
| 4 | Click **Save**. |

**—End—**

To terminate an employee:

| Step | Action |
|---|---|
| 1 | Highlight the employee in the left pane and click **View**. You can also expand the left pane of the **Profile** tab (see *Expanding Pages*). |
| 2 | Highlight the employee you wish to terminate. |
| 3 | Click **Terminate**, then click **OK** to confirm the termination. An End Date is added to the employee's record. |

**—End—**

To delete an employee:

| Step | Action |
|---|---|
| 1 | Highlight the employee in the left pane and click **View**. You can also expand the left pane of the **Profile** tab (see *Expanding Pages*). |
| 2 | Highlight the employee you wish to delete. |
| 3 | Click **Delete**, then click **OK** to confirm the deletion. All records for the employee are removed form the database. |

**—End—**

## Importing Employee Information

To create employees by importing their information from a file, click **Import**.



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The **Import** window opens.

| Step | Action |
|---|---|
| 1 | Select the file from which the data needs to be imported by clicking on **Browse...**. |
| 2 | Select the delimiter for the file data. |
| 3 | Specify the number of lines to ignore at the start of the file. |
| 4 | Check the fields that need to be imported and provide the column number corresponding to the field in the import file. **First Name** and **Last Name** are required fields. |
| 5 | Click **Save**.<br>To cancel without saving the data, click **Cancel**. |

**—End—**

***Note:*** When an employee is created by import, the system assumes that each data item has effective dates equal to the start and end date for the employee.

If you check the **User Name** check box to import user names from the file for each person imported, the following should be noted:

- A user account is created for each imported person.
- The user name for the account is the user name requested in the import file, if it is not already in use. If it is in use by some other user, the requested name is modified to make it unique.
- A default password is provided for each user account created. The default password consists of the following:

  **<first letter of the first name of the person> + <last name of the person>**

  For example, the default password for John Smith is **jsmith**.
- Users created in this way are asked to reset the account password upon their first login, after they successfully identify themselves.
- An information message is displayed on the import screen every time a user name is modified to make it unique, or if a default password is provided for a person.



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### Exporting Employee Information

You can also export employee information to a file by clicking **Export**. The operating system then prompts you to open or save the file **People.txt**.

| Step | Action |
|---|---|
| 1 | Click **Save** to open the Windows **Save As** dialog box. |
| 2 | Browse to the location in which you want to save the file. |
| 3 | Rename the file from the default **People.txt** if desired. |
| 4 | Click **Save**. |

**—End—**

Data is exported based on the first date of the display period for each employee data item with an effective date (that is, the data currently being displayed). Data histories are not exported.

## People Summary

Expand the left pane ( see *Expanding Pages*) to view a summary of employee information or to add, edit, terminate, or delete an employee (using the **Edit Profile** button). Click the head of a column to sort by that column.

To customize the columns displayed on the **People Summary** page:

| Step | Action |
|---|---|
| 1 | In the upper right corner, using the **Customize** menu, select **Edit**. The **List Configuration** dialog box opens. |
| 2 | In the **Selected Properties** pane on the right, highlight the properties you do not want to view. |
| 3 | Click the left facing arrow button to move the properties to the left pane. |
| 4 | Use the up and down facing arrow buttons to change the display order of the selected properties. |
| 5 | Click **Save As**, type a name for the new configuration, and click **OK**. The new configuration appears on the **Customize** menu. |

**—End—**



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# Using the Users Tab

The **Users** tab allows you to work with user names, account status, and passwords.

Depending on the configuration of your Security Realm, the use of this tab might be restricted to associating users or creating and updating user information. As for most pages in the Workforce Optimization Solution, the features on this page are privilege-protected.

Employees are listed in the left pane of the **Users** tab. You must select the employees you want to view in this pane.

To view information, click one or more employees to highlight them, then click **View**.

- Use the **Ctrl** or **Shift** key to select groups of employees, or click **Select All** to highlight all the employees.
- Click **Select None** to deselect all the employees.
- Type a name in the Find box and click **Go** to locate a specific employee.

You can filter the Name list by selecting a filter from the View menu at the top of pane. Select Create Filter or Edit Filters to create a new filter or change an existing one, respectively, as described in *Using the Users Tab*.

The Users pane lists employees' Names and Usernames, and displays a blank field for Password. It might also display an alert for each employee you select.

***Note:*** The **Password** column is only shown if the system is configured to use a Modifiable Security Realm.

The **Alerts** column is used to display user related information associated with the employee. It is typically used when errors are encountered when you are updating user information.

To modify an employee's user name, account status, or password:

| Step | Action |
|---|---|
| **1** | Click the **Users** tab of the **People** module. |
| **2** | Select an employee in the left pane (in the **Name** column). |
| **3** | In the **User Name** field, assign a username or edit the existing username of the employee. Without a username, the employee cannot be assigned a role. To set or change the employee's password, enter the desired password in the **Password** field. |



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The **Account Status** column describes the user account status. You can modify the account status of a user by choosing an account status from available options through the status selector. The account status selector menu displays the available account status options based on the current user's account status.

The following table describes all possible user account statuses. The last two account statuses (**Locked Account – Failed Login** and **Locked Account – Inactivity**) are used to automatically lock user accounts when an account locking policy is active. For this reason the two account statuses are not available as options in the account status selector. The account locking policy can be managed (configured) through the **General** tab of the **Administration** section of the **System** module. See *Account Locking Policy* for more information.

| Status | Description |
|---|---|
| **Active** | The user account is active. |
| **Force Password Reset** | Forces the user to change password next time the user logs in. The new password should be in accordance with the active password policy (**General** tab). See *Password Policy* for more information. |
| **Force Password Reset with ID** | Forces users to change their password the next time they log in, but they need to identify themselves before the password can be reset. The new password should be in accordance with the active password policy (**General** tab). |
| **Locked Account – by Admin** | The user account has been locked by an administrator and can only be unlocked by an administrator. |
| **Locked Account – Failed Login** | The user account has been locked automatically because of failed login attempts. This feature can be turned on and off using the **General** tab of the **Administration** section of the **System** module. Once an account is locked this way, it can be unlocked automatically (depending on the settings in the **General** tab) or can be unlocked by an administrator. |
| **Locked Account – Inactivity** | The user account has been locked automatically because of the fact that the user has not used the system for more than the number of days specified using the **General** tab of the **Administration** section of the **System** module. This feature can be turned |



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| Status | Description |
|---|---|
| | on or off (configured) using the **General** tab. Once an account has been locked this way, only an administrator can unlock the account. |

4 Specify or change the account status by choosing an account status through the status selector.

5 Click **Save**. The employee's username, account status, and password are updated.

**—End—**

To view or edit the usernames, account statuses, and passwords for one or more employees:

| Step | Action |
|---|---|
| 1 | In the left pane, highlight the employee(s) to view. Use **Ctrl** to select groups of employees. |
| 2 | Click **View**. The usernames of the selected employees are displayed. |
| 3 | Type the employees' usernames and passwords, and select the account status as desired. |
| 4 | Click **Save** to save your changes.<br>When you click **Save**, the system tries to save all modified user information for the selected employees.<br>It keeps track of the ones that it had problems with, and displays a message on the page indicating the problem.<br>In addition, as mentioned above, one or more alert messages are shown in the **Alerts** column. The alerts are displayed next to the records of employees for whom there was a problem. These alerts contain additional information on the problem encountered. |
| 5 | Click the buttons at the bottom of the page to move to other employees. |

**—End—**



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## Using the Access Rights Tab

Access to all functions in the Workforce Management is controlled through the use of roles. See *Roles Setup*. A role defines the individual's access rights; each individual must be assigned a role in order to log into the Workforce Management and the Workforce Management will display or enable only those functions a user's role provides access to.

Each individual's role is also assigned a **scope**. This is the organization level the role applies to. For example, a manager may have access to the records of people in his own organization but not those in other organizations. Roles limited to generic (non-organizational) functions do not have scopes.

A role is assigned to each employee in the **Access Rights** tab of the **People** module. The assigned role determines the employee's access privileges.

> ***Note:*** Before a role can be assigned to an employee, a username must be assigned first. See *Using the Users Tab*.

Employees are listed in the left pane of the **Access Rights** tab. You must select the employees you want to view in this pane.

To view information, click one or more employees to highlight them, then click **View**.

- Use the **Ctrl** or **Shift** key to select groups of employees, or click **Select All** to highlight all the employees.
- Click **Select None** to deselect all the employees.
- Type a name in the Find box and click **Go** to locate a specific employee.

You can filter the Name list by selecting a filter from the View menu at the top of pane. Select Create Filter or Edit Filters to create a new filter or change an existing one, respectively, as described in *Using the Users Tab*.

The **Access Rights** tab lists the Name, Username, Assigned Roles, and Scope for each of the employees you select. Roles and privileges are set up by the system administrator.

To assign a role to an employee:

| Step | Action |
|---|---|
| **1** | Open the **People** module's **Access Rights** tab. |
| **2** | In the left pane, highlight an employee. The employee's current role is listed in the right pane. |
| **3** | Click on the row for that employee in the left pane. |
| **4** | Click **Edit Access Rights** in the lower right corner of the page. The **Access Edit** page opens. |



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5 Select a role and an organization (scope) the role applies to. (Organizations for which you do not have view privileges are grayed out.)

***Note:*** Roles containing only Generic privileges do not require a scope.

6 Select the relevant campaign scopes. (Select **All Campaigns** to assign this user campaign scope privileges for all existing and future campaigns.)

7 Select a group scope if applicable.

8 Click **Save** to assign the role.

**—End—**

***Note:*** Given the way that access to the various modules, sections, and tabs of Nortel Workforce Management is segmented among the roles, and access to organizations, campaigns, and user groups controlled by users' access rights, it is recommended for ease of administration that one of your administrators be assigned all roles, with scope for all organizations, all campaigns, and all groups.



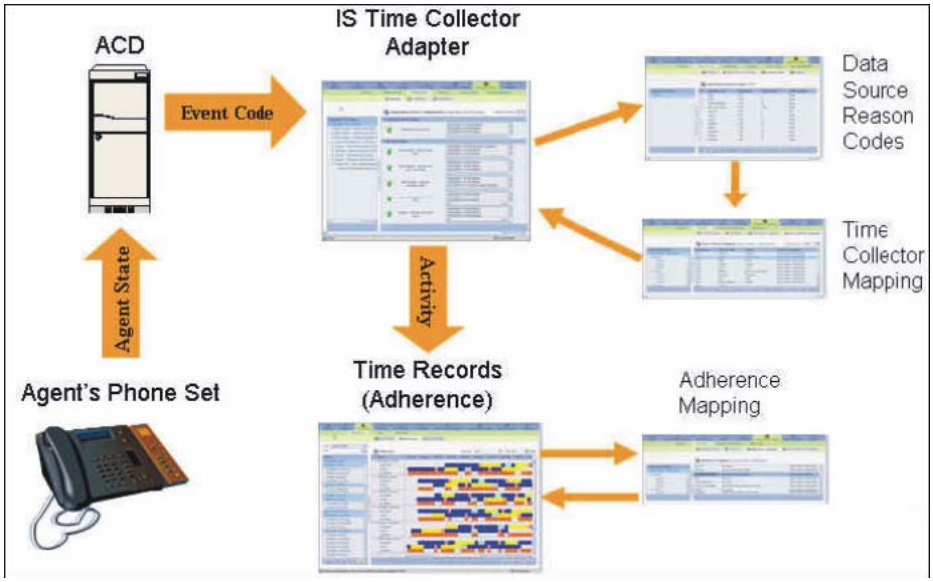
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# Working with Adherence

Adherence is a measure of how well employees' scheduled activities match their real-time activities.

The following graphic shows how agent state information is generated and flows through the Workforce Management solution to create time records and adherence data.




First, the agent presses a button on their phone set, or automatically enters a particular phone state. (An example of an automatic phone state is when the agent is sent a call and starts talking.) The agent state is passed to the Automatic Call Distributor (ACD).

The ACD then sends an event code to Integration Server. This code includes a date and time stamp, the agent's data source ID, and a 2-part agent state code, consisting of the Event Mode and Event Reason.

The Event Mode and Event Reason combinations are identified in the **Reason Codes** tab of the **Data Sources** section of the **System** module, and given a Reason Code name.



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Reason Code names are mapped to **Activities** on the **Time Collector Mapping** tab of the **Activities** section of the **App Admin** module. The activity that corresponds to the code received is created as an actual activity in a Time Record for the agent whose Data Source ID was received with the code.

The Workforce Management solution then compares the actual activity and the scheduled activity. If they are the same activity, or if they are mapped on the **Adherence Mapping** tab of the **Activities** section of the **App Admin** module, the agent is considered **In Adherence**. Otherwise, an exception is generated.

As an administrator, you can:

- create and edit the association (mapping) of agents to data sources ("Using the Agents Tab" (page 106))
- create and edit reason codes ("Creating and Editing Reason Codes" (page 109))
- map reason codes to activities ("Mapping Reason Codes to Activities" (page 111))
- create adherence mappings, that is, selecting alternate activities that are considered in adherence when an employee is scheduled for a particular activity
- view adherence

## Mapping Agents to Data Sources

You can create and edit the association (mapping) of agents to data sources in several ways:

- within Forecasting and Scheduling (refer to the section in the *Workforce Management Schedulers Guide* on Employee Grid Fields, in the chapter on organization mode tasks, for additional information)
- using the **Data Sources** container of the **Profiles** tab of the **People** module (see"Viewing Employee Information" (page 91) for more information)
- on the **Agents** tab of the **Data Sources** section of the **System** module

### Using the Agents Tab

Use the **Agents** tab of the **Data Sources** section of the **System** module to view agents assigned to a data source. Click the top of a column to sort by that column.

You can add mappings and edit exist mappings.



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## Adding and Editing Agent Mappings

You can add agent mappings to associate (that is, map) one or more selected agents to a selected data source. You can map agents to external IDs, such as Agent ID or Extension ID. The external IDs for mapping are based on the data source's setting for **Seating Arrangement** and the type of data source.

You can also search for and filter agents if you have a large number of agents.

To add agent mappings:

| Step | Action |
|---|---|
| 1 | Select a data source at the left side of the page. |
| 2 | Click **Add Agent Mapping**. The Select Agent window displays. |
| 3 | Select those agents you want to map. You can select agents using the following methods:<br>• Selecting one or more displayed agents, and then clicking **Select**. (You can select multiple agents. Click an agent's name and then use the **Shift** key to select a contiguous range, or the **Ctrl** key to select non-contiguous agents.)<br>• Clicking **Select All** or **Select None** to select all or deselect all agents respectively.<br>• Typing the employee's name or a few letters of the name in the **Find** area, selecting a filter from the **View** area, and then clicking **Go** to find an agent. |
| 4 | Click **Add**. |

**—End—**

The pop-up window closes, and the main screen refreshes to display a screen where you can create or edit mappings for the employees you selected.

To edit agent mappings:

| Step | Action |
|---|---|
| 1 | Select a data source at the left side of the page. |
| 2 | Select an agent from those listed on the right side of the page. |
| 3 | Click **Edit Agent Mapping**. |



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Based on the setting of **Seating Arrangement** for the data source on the **Settings** tab of the **Data Sources** section of the **System** module, a page is displayed, labeled one of the following:

- **Create/Edit association between agent and agent ID**
- **Create/Edit association between agent and extension**
- **Create/Edit association between agent, agent ID and extension**
- **Create/Edit association between agent and network login ID**

This page allows you to edit the mappings and associations for the employees you selected.

***Note:*** As mentioned previously, you can also create and edit these mappings on the **Profiles** tab of the **People** module

The data portion of the page is in tabular format, with the following columns:

| Column | Description |
|---|---|
| **Employee Name** | The name of the employee(s) you previously selected. |
| **Organization Name** | The organization to which the employee belongs. |
| **Agent ID** | The data sources with which the employee can be associated. This column is not displayed if the **Seating Arrangement** setting is **Free Seating** or **Hybrid**, nor for **LAN** data sources. |
| **Extension** | The interval at which the adapter tests that the devices are still valid and monitored. This column is only displayed for **PBX/ACD** data sources, when the **Seating Arrangement** setting is **Fixed** or **Hybrid**. |
| **Network ID** | The user's computer login ID. This column is only displayed for **LAN** data sources. |

4 Place the cursor in the field to be edited.

5 Type the required information, whether Agent ID and/or Extension, or Network ID.

6 Click **Save**.

**—End—**



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# Creating and Editing Reason Codes

Use the Reason Codes tab of the **Data Sources** section of the **System** module to view, create, edit, and delete reason codes, which are assigned to activities.

Reason codes are two part codes that consist of an Event mode and an Event reason. Time Collection reason codes are the codes that a data source, typically an ACD, sends to the Workforce Optimization Solution when an agent logs in, logs out, or changes state. My Time reason codes are the codes that the Workforce Optimization Solution can send to a data source, typically an ACD, to change the state of agents' phones.

Terminology varies among ACD vendors but the Event modes are often referred to as states, events, or modes on the ACD.

Event Reason values are dictated by the data source. Consult the data source documentation to determine the correct values. The Event Reason **UNAVAILABLE** means that no Event Reason will be sent to or received from the data source for that particular Event Mode.

The **Shift Operation** column determines the impact the reason code has on the shift. For example, some sites have several reason codes for **Logoff**. When an event that is marked as **End Shift** is received, the system closes the shift.

> ***Note:*** Each set of reason codes should have at least one reason code with a **Shift Operation** of **End**.

To create a new reason code:

| Step | Action |
|---|---|
| **1** | In the left pane, select the data source the reason code will belong to. |
| **2** | Click **Create Reason Code**. The Data Source Reason Codes page opens. |
| **3** | Type the name of the reason code. |
| **4** | Type the Event Mode. |
| **5** | Type the Event Reason. |
| **6** | Select the reason code's Shift Operation from the drop-down list. |
| **7** | Click **Save**. The reason code is listed in the left pane. |

**—End—**

To edit an existing reason code:



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| Step | Action |
|---|---|
| 1 | In the left pane, select the data source the reason code belongs to. |
| 2 | In the right pane, highlight the reason code you want to edit. |
| 3 | Click **Edit Reason Code**. The Data Source Reason Codes page opens with the reason code's current data. |
| 4 | Make any desired changes and click **Save**. |

**—End—**

To delete a reason code:

| Step | Action |
|---|---|
| 1 | In the left pane, select the data source the reason code belongs to. |
| 2 | In the right pane, highlight the reason code you want to delete. |
| 3 | Click **Delete Reason Code**, then confirm the deletion. |

**—End—**

## Uploading Mappings from a File

To ease the process of creating reason code definitions, you can upload the definitions to the server from a text file by clicking **Upload From File**.

The file is delimited, using either commas, semi-colons, or tabs as field separators, and can have any file extension, such as **.txt**, **.csv**, etc.

The file should contain the following:

1. A header line.

   The header line is identified by the "comment" character at the beginning of the line. For example:

   **#ReasonCode_Name Event_Mode Event_Reason Purpose ShiftOperation**

   By default, the comment character is #, but you can specify a different character.

2. The definition of the reason codes.

   The following parameters can be provided for each reason code:

   a. Mandatory fields:



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- **Name**—a unique name for the reason code
- **Event Mode**—the main agent state mode code
- **Event Reason**—the secondary agent state mode code

b. Optional field:

- **Shiftoperation**—Use the drop-down menu to select either **End** or **None**.

For example:

**Login, 1101,0, ,None**
**Not-Ready, 1103,0,,End**

## Mapping Reason Codes to Activities

Use the **Time Collector Mapping** tab of the **Activities** section of the **App Admin** module to view, edit, and delete Time Collector Mappings for each organization's activities. Time Collector Mappings let you map the reason code of a data source with an organization's activities.

This page displays all the possible combinations of Activity and Reason Code by Data Source. Where a mapping exists, all of the columns have values. Dashed lines denote either an unmapped Activity or an unmapped Reason Code. If the Activity column has dashes, the line denotes an unmapped Reason Code, and vice versa.

Reason codes are established on the **Reason Codes** tab under **Data Sources** in the **System** module. See "Creating and Editing Reason Codes" (page 109). Click the top of any column to sort by that column. Click again to reverse the sort order.

The **Edit Time Collector Mapping** button is always enabled, but its results depend on what you have selected:

- Where the Activity column of a row contains dashes, denoting an unmapped Reason Code, you can map the Reason Code.
- If the row denotes an existing mapping, the results of the edit operation depend on the currently selected organization and the organization where the existing mapping is defined.
  - **Equal organizations:** If the currently selected organization and the organization where the mapping is defined are the same, the activity selected from the edit page will replace the previous activity.
  - **Parent-child organizations:** If the currently selected organization is a child of the organization where the mapping is defined, a new mapping will be created that will be effective for the currently selected organization and its children.


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The **Unmap Time Collector Mapping** button is enabled only for those rows that denote existing mappings whose activity is owned by the organization that is selected in the left panel.

To edit a Time Collector mapping:

| Step | Action |
|---|---|
| 1 | Select the activity in the right pane. (You must have the activity's owner organization selected in the left pane to edit it.) |
| 2 | Highlight the reason code and click **Edit Time Collector Mapping**. The Time Collector Mapping Details page opens. |
| 3 | Select the reason code's activity from the **Activity** drop-down list. |
| 4 | Click **Save**. The new mapping is listed. |

**—End—**

To remove a Time Collector mapping:

| Step | Action |
|---|---|
| 1 | Select the activity in the right pane. (You must have the activity's owner organization selected in the left pane to edit it.) |
| 2 | Highlight the activity and click **Unmap Time Collector Mapping**. |
| 3 | Click **OK** to confirm the deletion. |

**—End—**

## Uploading Mappings from a File

To ease the process of mapping the reason code of a data source with an organization's activities, you can upload the mappings from a text file by clicking **Upload From File**.

The file is a comma-separated text file, and can have any file extension, such as **.txt**, **.csv**, etc.

The file should contain the following:

1. A header line.

   The header line is identified by the # character at the beginning of the line. For example:

   **#ReasonCode_Name Activity_Name**



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2. The mapping of the reason code to activity.

   The following mandatory parameters need to be provided:

   - **Reason Code Name**
   - **Activity Name**

   For example:

   **Login, Immediate**
   **Not-Ready, Inactive**

## Selecting Alternate Activities for Adherence Mapping

Use this page to list the adherence mapping for each organization's activities. Adherence mapping lets you select alternate activities that are considered in adherence when an employee is scheduled for a particular activity. For example, if an activity called **Email** is mapped to the scheduled activity **Answercalls**, employees are considered in adherence if they are performing either activity.

The page displays the adhering actual activities mapped to the scheduled activities. Scheduled activities are activities that can be used in shifts, shift events, calendar events, unavailabilities, or time off.

To edit an adherence mapping:

| Step | Action |
|---|---|
| **1** | Select the scheduled activity in the right pane. (You must have the activity's owner organization selected in the left pane to edit it.) |
| **2** | Click **Edit Adherence Mapping**. The Adherence Mapping window is displayed. |
| **3** | Highlight the activity to map and click the right facing arrow button to map it to the scheduled activity. |
| **4** | Click **Save**. The scheduled activity is listed with the new mapping. |

**—End—**

To map or unmap an activity to other adhering activities:

| Step | Action |
|---|---|
| **1** | Highlight the activity and click **Edit Adherence Mapping**. The Adherence Mapping page opens. |



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**—End—**

To add an adhering activity to an existing mapping:

| Step | Action |
|---|---|
| 1 | Highlight the activity and click **Edit Adherence Mapping**. The Adherence Mapping page opens. |
| 2 | Highlight an activity to map in the Available Scheduled Activities column and click the right facing arrow button to map it to the scheduled activity. Use **Shift** or **Ctrl** to select multiple activities. The mapped activities appear in the Adhering Actual Activities column. |
| 3 | Click **Save**. The scheduled activity is listed with the new mapping. |

**—End—**

To remove an adherence mapping:

| Step | Action |
|---|---|
| 1 | Highlight the activity and click **Edit Adherence Mapping**. The Adherence Mapping page opens. |
| 2 | Highlight an activity to map in the Adhering Actual Activities column and click the left facing arrow button to remove the mapping. Use **Shift** or **Ctrl** to select multiple activities. |
| 3 | Click **Save**. The scheduled activity is listed with the updated mapping. |

**—End—**

***Note:*** The adherence mapping **No Activity** is an internal classification used to denote the time interval between shifts, and is ignored in adherence calculations. For activities such as **Break**, there should be no adherence mapping. (The characters -- should appear in the **Adhering Actual Activities** column.)

**No Activity** should be explicitly mapped for scheduled activities such as vacation, or training, where the user is not expected to be logged in.



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# Viewing Adherence

The **Adherence** tab of the **Adherence** section of the **Tracking** module allows you, as administrator, to view employee adherence to schedules. The **Adherence** section allows you to analyze employee adherence to schedules at any point during the day or to assess trends and potential problems. By default, administrators only have access to the **Adherence** tab. Adherence is a performance assessment tool that lets you analyze employee adherence to schedules at any point during the day or to assess trends and potential problems. Out of adherence time periods for the selected day are displayed next to the employee's name.

- Click **Legend** at the bottom of the **Adherence** pane to display the types of activities, the adherence tolerance for each, and exception colors.

To view an employee's adherence:

| Step | Action |
|---|---|
| **1** | Select the date and the sort order at the top of the Adherence pane. Click the refresh button to display the new date. |
| **2** | Select the employees. Click **Select All** or **Select None**, or use **CTRL** to highlight multiple employees. See also *Filtering Employees* for more information. Click **View** to display the employees. |
| **3** | In the right pane, click the expand button to display an employee's adherence information.<br><br>Hovering the cursor over an exception causes a tool-tip style window to appear, showing the exception's status and the time range involved. For approved exceptions, the name of the person who authorized the exception is also shown. |

**—End—**

## Adherence Details

Use the Adherence tab to view detailed adherence information for the selected employees:

- In the right pane, click the expand button to display an additional three lines showing the employee's adherence information.The expanded display shows **Scheduled** (the employee's scheduled activities), **Actual** (the employee's recorded activities, and **Exceptions** (any exceptions recorded, as well as who authorized an exception if anyone).

  ***Note:*** If your site is licensed for Application Analysis, desktop activity information can be integrated with the adherence information. With the ACD Monitoring license (for non- WFM customers), the desktop



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activities are reported on the Actual line. With the Desktop Monitoring license (for WFM customers), a fourth line is displayed on the Adherence screen to show desktop activities. In addition, if you are licensed for Desktop Monitoring, you can set the names of the **Actual** and Desktop activity lines for the Adherence screen.
In addition, if you are licensed for Desktop Monitoring, you can set the names of the **Actual** and **Desktop** activity lines for the Adherence screen.


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# Managing Time Off

Workforce Management enables your staff to easily manage and contribute to their own schedules without impacting service levels. By bringing workforce management to the desktop, your company can build morale and retention, while allowing your managers to focus on more critical areas, such as coaching and performance-related tasks.

Using their Web browser, agents can securely:

- Create, withdraw, and be wait-listed on time-off requests, even down to portions of a day.
- Set preferences for days off and start times through scheduling algorithms that balance preferences, develop schedules, and create time-off wait lists that optimize center and agent requirements.
- View schedule and time-off information, with the ability to check the status of time off, and vacation requests.

As administrator, you can configure time-off management settings to your organization's needs.

This chapter covers:


- "Configuring Time-Off Settings" (page 117)
- "Setting Time-Off Request Validation Rules" (page 120)
- "Setting Time-Off Request Filing Rules" (page 122)
- "Configuring Auto Processing" (page 123)
- "Setting Organizations Time-Off Parameters" (page 124)
- "Managing Time-Off Requests" (page 126)


## Configuring Time-Off Settings

You use the **Request Management** section of the **App Admin** module to configure time-off settings.



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## Settings

Use the **Settings** tab to control how time-off requests, waitlists, shift swap requests, and shift bidding are handled for a specific organization.

In addition to the Organization selection pane, the other pane of the **Settings** page consists of the following containers:

- *Time Off Management Activation*
- *Agent Workflow Options*
- *Time Off Year*
- *Time Off Waitlist*
- *Shift Swap*
- *Shift Bidding* (only relevant if you are licensed for the optional Shift Bidding feature)
- *Time Off Calendar Colors*
- *Time Off Management Policies*
- *Shift Swap Policies*
- *Shift Bidding Policies* (only relevant if you are licensed for the optional Shift Bidding feature)

Only the containers relevant to Time-Off Management are discussed in this section.

### Time Off Management Activation

The following options can be used to determine if managers are able to manage requests.

- **Activate Manager Workflow**—Check this box to enable managers in the selected organization to view and act on Time Off Requests from their employees. It also enables managers to access the Time Off Calendar.
- **Activate Agent Workflow**—Check this box to enable employees in the selected organization to view, create, and edit Time Off Requests. It also enables employees to access the Time Off Calendar.

### Agent Workflow Options

The options in this container affect the actions available to employees as well as what they can view.

- **Allow escalation of denied requests**—If checked, agents have an action button available next to the denied request. This button sends the request to a manager who has privileges to decide on the disposition of escalated requests.



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- **Show auto processing rules to agents**—If checked, agents can see the auto processing rules set for their organization in the My Schedule:Requests:Policies tab.
- **Limit agent's schedule viewing to the following organizations**—If agents have privileges to view group schedules, the list of organizations entered here determines which schedules are shown to the agents.

### Time Off Year

The settings in this container specify whether the system considers the agent's start date or a fixed date to determine the boundary of the time-off year when a time off request is processed. The agent has a new allocation of vacation time every year.

### Time Off Waitlist

The settings in this container control waitlisting time-off requests:

- **Enable waitlists**—If checked, requests for time-off that have been denied can be put on a waitlist, in case another employee withdraws a time-off request that has been approved.
- **Enable auto scan of waitlisted requests**—Allows you to enable (or disable) auto scanning of waitlists. Selecting this checkbox enables scanning of waitlists for any of the following events that lead to changes in the organization's allotment hours or employee time-off hours.
  - A change to the time-off allocation for an organization.
  - An agent withdraws an approved time-off event.
  - A change to the blackout status of a date.
  - A change in the approved allocation hours of the approved time off when the schedule has been published.
  - Any changes such as an update, addition, deletion, enabling/disabling auto processing or auto filing, or validation rules for time off. (Including similar actions for the parent organization or organizations sharing the allocation hours).

A waitlist scan is triggered on any of the above events. Once a waitlist scan has been triggered, the waitlisted requests are filtered and sorted according to the date range and the organizations affected by the triggering event. The auto processing rule engine then sequentially processes these filtered and sorted waitlisted requests for approval or denial.

- **Waitlist sort priorities**—Allows you to specify the sort order priority for the waitlists. You can select up to three different columns for sorting and computing the waitlist order for waitlisted requests. The requests are sorted by the first, second and then third column, with either ascending or descending order, respectively. The default setting has the first


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column as Submitted in ascending order. The settings for the second and third columns are optional.

The following fields can be selected for the waitlist sort order settings:

— **Seniority**

— **Rank**

— **Submitted** (the date the time-off request was created)

— **Days on Waitlist** (the number of days on the waitlist)

— **Time on Waitlist** (the exact time on the waitlist)

— **Length** (for the waitlisted time-off request choice)

— **Hours Accounted** (for the waitlisted time-off request choice)

### Time Off Calendar Colors

Use this container to customize the colors that appear on the time off calendar. You can change the colors for one or more of the following:

- Available Vacation
- Working Holiday
- Non-working Holiday
- Blackout
- Non-operation Day
- No Available Vacation

### Time Off Management Policies

Use this area to enter text about time off policies and procedures. These policies can then be viewed by agents.

## Setting Time-Off Request Validation Rules

Use the **Validation** tab of the **Request Management** section of the **App Admin** module to set validation rules.

Select the rules you want to use to validate time off, approved time-off withdrawal, swift swap, and shift bidding requests. The validation icon will appear on both the administrator and agent request pages.

Click **Save** to save your changes.

Click **Cancel** to cancel your changes and return to the previous screen.

Click **Revert** to cancel your changes and remain on the current screen.



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## Time Off Request Validation Rules

The validation rules for time off requests are listed below:

- **Organisation has available time off hours.**

  This rule is violated if the total length of scheduled time off events during the requested day(s) is greater that the number of hours entered in the **App Admin:Request Management:Available Time Off** page for the organization, to which the requester belongs. If available time off hours are entered for the organization branch, then this rule will be affected by time off events for all employees in this branch.

- **Employee has enough time off hours.**

  This rule is violated if the total length of scheduled time off events for this employee during the time off year exceeds the yearly allotment entered on the **People:Time Off** page. Time Off year may be either the employee anniversary year or a calendar year, as configured in the **App Admin:Request Management:Settings** page.

- **Request complies with filing rules.**

  This rule is violated if the request submittal date violates at least one of the filing rules applicable to the requester's organization.

- **Request avoids blackout days.**

  This rule is violated if the request covers a day marked as a blackout day on the **App Admin:Request Management:Available Time Off** page.

- **Requested time off is not being swapped.**

  This rule is violated if one or more request choices overlaps a shift that will be received from a pending shift swap request (state of shift swap request is either pending, in negotiation or escalated).

- **Scheduled calendar event activities that the request avoids.**

  This rule is violated if the requested time off period overlaps with the selected scheduled calendar event(s):

  — **All**

  — **Day Off**

  — **Learning Break**

  — **Meeting**

  — **Project Filing**

  — **Supervisor Meeting**

  — **Tardy**

  — **Training**



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- **Minimum duration of the request.**

  This rule is violated if the request duration (end date - start date) is not at least the specified minimum. The minimum can be expressed in units of **Minutes**, **Hours**, or **Days**.

- **Maximum duration of the request.**

  This rule is violated if the request duration (end date - start date) exceeds the specified maximum. The maximum can be expressed in units of **Minutes**, **Hours**, or **Days**.

### Approved Time Off Withrawal Validation Rules

The validation rule for approved time-off withdrawal requests is listed below:

- **Request complies with filing rules.**

  This rule is violated if the withdrawal request submittal date violates at least one of the filing rules applicable to the requester's organization.

## Setting Time-Off Request Filing Rules

Use this page to view and edit request filing rules. Click on the top of a column to sort by the column. Click again to reverse the sort order.

This table shows the filing rules for time off, shift swapping, and shift bidding that have been defined for each organization. The following columns are defined on this page.

- **Apply**—This column controls whether the rule is applied to the current organization. The rules of a parent organization flow down to the child organizations. The rules defined in a parent organization can be optionally applied to a child organization. If a rule defined in a parent is not applied to a child organization, the rule is not used for the child organization. It is legal for a grandchild organization to differ with the child organization. When the checkbox is changed, **Save Applied** must be used to save changes. When applied settings are saved, the child organizations are changed to match the parent's applied state. Only the changes are copied to the children.
- **Request Type**—This column shows the request type, which can be either time off, approved time off withdrawal, shift swap, or shift bidding.
- **Which Request**—This column shows the criteria that will be used to determine which requests are affected by the rule.
- **When to file**—This column shows when the requests must be filed.
- **Owner Organization**—This column shows where the rule was created. A rule can be modified only if you have selected its owner organization.

Click **Save Applied** to save the applied checkbox column changes.



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Click **Create New Rule** to create a new filing rule for Time Off or Shift Swap. This button displays a pop-up window to allow you to select the kind of rule to create.

Click **Copy Rule** to copy a selected rule to another organization. It is not necessary to copy a rule to a child organization because rules flow down to child organizations naturally. This button is useful when copying a rule to a sibling organization.

Click **Edit Rule** to modify the selected rule.

Click **Delete Rule** to remove the selected rule. The rule is removed from the selected organization and its child organizations.

## Configuring Auto Processing

This table allows you to control the auto-processing rules for time off, approved time off withdrawal, shift swap, and shift bidding for each organization.

The following columns are defined on this page.

- **Apply**—This column controls whether the rule is applied to the current organization. The rules of a parent organization flow down to the child organizations. The rules defined in a parent organization can be optionally applied to a child organization. If a rule defined in a parent is not applied to a child organization then the rule is not used for the child organization. It is legal for a grandchild organization to differ with the child organization. When the checkbox is changed, **Save Applied** must be used to save changes. When applied settings are saved, the child organizations are changed to match the parent's applied state. Only the changes are copied to the children.
- **Request Type**—This column shows the request type, which can be either time off, approved time off withdrawal, shift swap, or shift bidding.
- **Which Request**—This column shows the criteria that are used to determine which requests are affected by the rule.
- **How to Auto-process**—This column shows the criteria used to approve or deny a request.
- **Owner Organization**—This column shows where the rule was created. A rule can be modified only if you have selected its owner organization.

Click **Save Applied** to save the applied checkbox column changes.

Click **Create New Rule** to create a new filing rule for Time Off, Approved Time Off Witdrawal, Shift Swap, or Shift Bidding. This button displays a pop-up window to allow you to select the kind of rule to create.



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Click **Copy Rule** to copy a selected rule to another organization. It is not necessary to copy a rule to a child organization because rules flow down to child organizations naturally. This button is useful when copying a rule to a sibling organization.

Click **Edit Rule** to modify the selected rule.

Click **Delete Rule** to remove the selected rule. The rule is removed from the selected organization and its child organizations.

## Setting Organizations Time-Off Parameters

You use the **Available Time Off** tab to allocate the time off that is available to an organization's employees. For instance, if you specify that 32 hours of time off are allocated to an organization for a certain day, employees in that organization can be granted requests for time off for up to a total of 32 hours before no more time off is available.

You have three choices for time off allocation: **Current Organization**, **Organization Branch**, and **Shared For Branch**.

Imagine a call center that has a parent organization called Central, and branch organizations called CST 01, CST 02, and CST 03.

If you choose **Current Organization**, and give Central 32 hours for a given day, the time off calendar will show 32 hours of time off allocated to the Central organization, and none allocated to any of the branch organizations.

If you choose **Organization Branch**, and give Central 32 hours for a given day, the time off calendar will show 32 hours of time off allocated to the Central organization, and 32 hours allocated to each of the branch organizations. This means that there is a total of 32 x 3 worth of hours in total (but CST 01, 02, and 03 get an equal amount of hours, 32 hours each).

If you choose **Shared For Branch**, and give Central 32 hours for a given day, the time off calendar will show 32 hours of time off allocated to the Central organization, and 32 hours allocated to each of the branch organizations. Additionally, the description **Allocations will be shared for all the organizations in the branch** appears above the calendar. This means that Central, CST 01, CST 02, and CST 03 share the 32 hours.

For days when no time off is allowed, place a check in the checkbox next to the date, which will make it a blackout date regardless of hours that are allocated. It is also possible to enter a range of blackout dates.

| Step | Action |
|---|---|
| **1** | Enter the number of hours allocated for a given date. |
| **2** | Click on a checkbox to mark a day as a blackout day. |



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3 Click **Save** to save your changes.

Click **Clear** to remove all changes.

Click **Revert** to undo all changes you have made since the last time you clicked **Save**.

**—End—**

Click **Import** to invoke a dialog to upload a file to the server.

To import allocations from a text (.txt) file, create the file using the following format:

**mm/dd/yyyy <tab> number**

For example:

**01/10/200350.5**
**01/11/200355**

Use a **Tab** character to separate the date and number. Use a new line for each date. Convert other formats, such as MS Excel, to text files before importing them.

## Viewing a Groups Time-Off Activity

The **Time Off Calendar** section of the **Requests** module provides an overview of a group's time off activity in a graphical format.

The display has two viewing modes:

- Year at a glace
- 2 months (current and next)

In addition, the 2-month mode has two possible display views:

- Organization
- Personal

In 2-month mode, each day of the month contains three numbers displayed below the calendar date:

- **hours available**

  In the Organization display view, the hours available indicate the total number of time-off hours allocated for that day to the current organization. This number can be set by administrators and schedulers



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in the Request Management section of the App Admin module, on the **Available Time Off** tab.

In the Personal display view, the hours available indicate the remaining number of time-off hours allocated for that day to the current organization.

- **hours pending**

  The number of time-off hours for that day that have not been approved or denied.

- **scheduled time off**

  The number of time-off hours approved for the day.

To change organization, select a different organization in the Selection Pane at the left side of the page.

To select a new date for the calendar display, use the date selector near the top of the page.

## Managing Time-Off Requests

The **Requests** module allows you to:

- approve and deny time-off requests
- withdraw approved time-off requests on the behalf of employees
- approve and deny withdrawal of approved time-off requests
- waitlist denied time-off requests on the behalf of employees
- approve and deny waitlisted time-off requests

***Note:*** This module is a component of Time Off Management, which is part of the Advanced Workforce Management solution.
Time Off Management is an optional addition to the Operational Workforce Management solution.
Shift bidding is an optional feature available for either the Operational or Advanced Workforce Management solution.

An agent can request time off as one of three different types:

1. **Use my time-off hours to schedule my absence** (counts as X hours time off)
2. **Schedule around my time-off request if possible** (use underlying shifts time off)
3. **Mark as unavailable and schedule around this time** (unavailability request)



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Unavailability requests are only available for activities that are requestable and specified as able to be used for unavailability. If the request is approved, an unavailability event is created.

Types 1 and 2 behave differently depending on whether a schedule has already been published for the time that is being requested. Therefore, there are four distinct possibilities for an agent's time off request:

- "Count as X hours time off" when there is no published schedule
- "Count as X hours time off" when there is a published schedule
- "Use underlying shifts time off" when there is no published schedule
- "Use underlying shifts time off" when there is a published schedule

The system considers dates prior to the last published shift assignment for an employee to be published, and considers time after this to be unpublished.

Here are specific details of how each of the four use cases works:

**"Count as X hours time off" when there is no published schedule**

Uses the number of minutes specified for the event, regardless of whether the event overlaps with any shifts. To determine the number of minutes to be specified when creating the event from request management, the scheduling engine uses the following rules:

1. If the time-off event is less than the length of the default time-off length provided for that agent, the event length is used.
2. If the time-off event length is equal to or greater than the default length provided for that agent, the agent's default length is used.
3. If there is no default length specified (the field is null) for an agent, the request is allowed, but it causes a validation alert stating that the request cannot be approved.

Once an event is created, if the user edits the number of minutes for an event already marked as using a specific number of minutes, the current settings of the event are used regardless of the three points above.

Under no circumstances is an underlying shift used as the basis for calculating the hours of events that are not marked as "use underlying shift."

If this time is scheduled, the scheduler will try to place X hours of paid Shift Assignments underneath the Time Off.

**"Count as X hours time off" when there is a published schedule**



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Uses the total paid time in shifts and shift activities currently published from the start date of the request until the end date of the request.

Once the event is created, if the user edits the number of minutes for an event already marked as using a specific number of minutes, the current settings of the event are used.

Under no circumstances is an underlying shift used as the basis for calculating the hours of events that are not marked as “use underlying shift.”

If this time is rescheduled, the scheduler will try to place X hours of paid shift assignments underneath the time off.

**“Use underlying shifts time off” when there is no published schedule**

When the event is created, the following rules are used:

1. If the time-off event is less than the length of the default time-off length provided for that agent, the event length is used.
2. If the time-off event length is equal to or greater than the default length provided for that agent, the agent default length is used.
3. If there is no default length specified (the field is null) for an agent, the request is denied.

If the default lengths for the agent are edited, it affects the calculation on unpublished weeks.

Once the schedule is published, the paid time underlying the time off is used.

If this time is scheduled, the scheduling engine might place any amount of staffing underneath this time in order to satisfy the agent’s work rules and meet the service goals of the campaign.

**“Use underlying shifts time off” when there is a published schedule**

Uses the paid time of the overlapping published shifts and shift activities. This is true regardless of any settings the agent might have for default time.

If the schedule is republished, the paid time underlying the Time Off is used.

If this time is rescheduled, the scheduling engine might place any amount of staffing underneath this time in order to satisfy the agent’s work rules and meet the service goals of the campaign.



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***Note:*** As administrator, you can specify which types of time-off request processing can be used:

- **Use my time-off hours to schedule my absence**
- **Schedule around my time-off request if possible**
- **Both**

See"Request Management" (page 256) for additional information.

## Viewing Requests

Use the **Agent Requests** section of the **Requests** module to view agent requests. Click on the top of a column to sort by the column. Click again to reverse the sort order.

Use the date range selector to filter requests by their start and end dates.

The columns displayed on the **Agent Requests** page are determined by the type of request you are displaying. If you are viewing multiple types of requests at the same time (the default), you see only those columns that the request types have in common.

For your reference, a brief description of each column is listed below:

| Column | Description | |
|---|---|---|
| **Name** | The employee's name. | |
| **Status** | An icon showing the current stage in the request processing, such as pending, approved, denied. The name of the status is displayed when you hover the cursor over the icon. The status icons are: | |
| |  | The request has been approved. Below this icon you may see an additional icon if you have requested withdrawing the time-off request. |
| | |  A request to withdraw the approved time-off request is in progress. |
| | |  A request to withdraw the approved time-off request has been rejected. |
| |  | The request has been denied. |
| |  | The request has been escalated. |
| |  | The request has expired. |
| |  | The request is in negotiation. |
| |  | The request is invalid. |
| |  | The request is pending approval. |



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| Column | Description | |
|---|---|---|
| |  | The request has been waitlisted. (A request that has been denied can be waitlisted for approval if conditions change.) |
| |  | The request has been tentatively approved. |
| |  | The request has been withdrawn. |
| **Type** | The type of request: time off, shift swap, or shift bidding. | |
| **Submitted** | The date on which the request was submitted. | |
| **Last modified** | The date on which the request was last changed. | |
| **Expired** | Whether the request has expired (**Yes**) or not. | |
| **Comments** | The text of any comments entered by the manager or agent. | |
| **Alerts** | Icons showing which request validation rules are violated by this request. The rule name is displayed when you hover the cursor over the icon. See the alerts list in "Managing Time-Off Requests One by One" (page 133) for more information on these icons. | |
| **Actions** | Clickable icons for editing, approving, denying, or other status changes for the request. See the table in"Managing Time-Off Requests One by One" (page 133) for more information on the action icons. | |

The following columns are specific to Time Off requests:

| Column | Description |
|---|---|
| **Start** | The time stamp of the beginning of the requested time off. |
| **End** | The time stamp of the end of the requested time off. |
| **Length** | The duration of the requested time off. |
| **Hours Accounted** | The number of the employee's time-off hours involved in the request. |
| **Seniority** | Start date for agents associated with the request. |

The following columns are specific to Shift Swap requests:

| Column | Description |
|---|---|
| **Shift Date** | The date on which the shift offered for swap takes place. |
| **Start** | The time (in the viewing time zone) when the shift starts. |
| **End** | The time (in the viewing time zone) when the shift ends. |
| **Post Expires** | The time by which agents expect the swap to be finalized. |



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| Column | Description |
|---|---|
| **Swap Type** | Whether the swap is one-way or two-way. (In a one-way swap, one agent takes over another's shift without giving one in return.) |
| **Partial Shift** | Shows whether the shift swap being proposed is partial. (Shifts can be swapped either entirely or partially. In a partial shift swap, the agent can propose swapping only a portion of the shift, or can propose dividing the shift into multiple portions, each of which can be swapped.) |

The following columns are specific to Shift Bid requests:

| Column | Description |
|---|---|
| **Bid Name** | The name given by the agent to the request. |
| **Use Points** | Whether the employee has chosen to use accumulated bonus points in this bid. |
| **Seniority** | The employee's start date in the company. |
| **Rank** | The employee's rank in the company. |
| **Points** | Bonus points are provided to encourage employees to bid on unpopular schedules. This column shows the number of bonus points available to the employee. |
| **Bonus** | The number of bonus points awarded for this shift. |
| **Score** | The calculated score of the shift bidding request. The score weights the request against other requests for the same shift. |
| **Preferences** | The preference level selected by the employee for the specific schedule that is being requested. |

## Filtering Requests

By default, the **Agent Requests** section of the **Requests** module uses the predefined filter **All Active**, which does not include expired and withdrawn requests of all three types, or invalid requests of Time Off and Shift Swap type. In addition, you can select the predefined filter **Active**, which display all the requests for the selected time range. You can also create your own filters.

To filter out unwanted requests:

| Step | Action |
|---|---|
| **1** | In the **View** field at the top left of the page, select one of the predefined filters or select **Create Filter** or **Edit Filter** to create or edit a filter. When you select **Create Filter** or **Edit Filter**, the **Request Filter** page is displayed. |



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**—End—**

To create a new filter:

| Step | Action |
|---|---|
| 1 | In the upper left pane, select the organization(s) to filter. When you select an organization, all its suborganizations are automatically selected as well. |
| 2 | Select the request type.<br>The working pane refreshes to display the items relevant to the selected request type. |
| 3 | For each item you want to filter by, type a value or make a selection from the drop-down menus. |
| 4 | Click **Save As**, and the type a name at the top of the pop-up window. |
| 5 | Click **Save** to save the filter and return to the previous page. |

**—End—**

To edit an existing filter:

| Step | Action |
|---|---|
| 1 | For each field you want to change, select or deselect an operator and type or select a value from the list. |
| 2 | Click **Save** to save the filter and return to the previous page. |

**—End—**

To delete an existing filter:

| Step | Action |
|---|---|
| 1 | From the **Filter** menu on the upper right, select the filter you want to delete. |
| 2 | Click **Delete**, and then click **OK** to confirm the deletion and return to the previous page. |



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**—End—**

To show only requests for a specific agent, in the **Find** field at the top left of the page, specify the agent's name, and then click the **Go** button beside it. The agent name criteria is applied on top of the selected filter.

### Customizing the Columns Displayed for Requests

To customize the columns displayed:

| Step | Action |
|---|---|
| 1 | In the **Customize** field at the top right of the page, select **Edit**. The **List Configuration** page opens. |
| 2 | Select the desired configuration to edit using the drop-down list. |
| 3 | Move the desired properties from the left pane to the right pane using the arrows in the middle. |
| 4 | Click **Save** if you are editing an existing configuration setting, or click **Save As** to save a new configuration using a new name. |
| 5 | Click **Done** to exit this window without saving. |

**—End—**

### Request Alert Email Links

Depending on how alert rules have been configured for time-off and shift-swap requests, and shift bid auctions, employees and their managers may receive email notification. For those with the appropriate privileges (the employees involved and their managers, typically), the email contains a link that launches Workforce Management and displays the relevant request.

## Managing Time-Off Requests

You can manage requests either one by one, or as a group.

### Managing Time-Off Requests One by One

The icon buttons in the **Actions** columns allow you to manage pending requests. (If you do not see the **Actions** column, you need to customize the display to make sure it is chosen.)

The available buttons are:



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| Icon | Usage |
|---|---|
|  | Approve the request. The schedule information is updated for Forecasting and Scheduling, and alerts, if configured, are sent. |
|  | Approve a request for withdrawal of an approved time-off request. |
|  | Cancel a request for withdrawal of an approved time-off request. |
|  | Deny the request. |
|  | Edit the request. |
|  | Withdraw the request. |
|  | Reject a request for withdrawal of an approved time-off request. |
|  | Tentatively approve the request.<br>Requests that have been tentatively approved display the status **Pending** to the agents that submitted them, but display the status **Tentative** to you until you either confirm the request or publish the schedule. |
|  | View the details of the request. A pop-up window opens that provides several groups of information, each in its own container. For Time-Off Requests, you see:<br>• **Summary Information:**<br>Contains information such as the Employee Name, Time Off Type, and Time Off Hours.<br>• **Alerts Information:**<br>Displays the icons and a description for any failed validations. See the alerts list below this table for additional information.<br>• **Time Off Choice(s) Information:**<br>Contains Time Off Choice(s) information associated with the Time Off Request, such as choice ranking, dates, total duration, number of hours debited against time off, and choice alerts.<br>Each possible choice for a time off request is validated independently. For each failed validation, this area shows the icon and description of the validation, similar to that described in the previous section on the alerts information.<br>• **Status Information:**<br>Contains the modification history (audit trail) of the Time Off Requests. |



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**ATTENTION**

Be aware that time-off requests that are tentatively approved do change the schedule with Forecasting and Scheduling. If a scheduler or other person with appropriate privileges then publishes a schedule with tentative approvals, the approvals change from tentative to approved. Shift swap requests stay marked invalid.

The **Alerts** column shows you any violations of filing rules for the requests:

- **Organisation has available time off hours.**

  This rule is violated if the total length of scheduled time off events during the requested day(s) is greater that the number of hours entered in the **App Admin:Request Management:Available Time Off** page for the organization, to which the requester belongs. If available time off hours are entered for the organization branch, then this rule will be affected by time off events for all employees in this branch.

- **Employee has enough time off hours.**

  This rule is violated if the total length of scheduled time off events for this employee during the time off year exceeds the yearly allotment entered on the **People:Time Off** page. Time Off year may be either the employee anniversary year or a calendar year, as configured in the **App Admin:Request Management:Settings** page.

- **Request complies with filing rules.**

  This rule is violated if the request submittal date violates at least one of the filing rules applicable to the requester's organization.

- **Request avoids blackout days.**

  This rule is violated if the request covers a day marked as a blackout day on the **App Admin:Request Management:Available Time Off** page.

- **Requested time off is not being swapped.**

  This rule is violated if one or more request choices overlaps a shift that will be received from a pending shift swap request (state of shift swap request is either pending, in negotiation or escalated).

- **Request avoids scheduled calendar events.**

  This rule is violated if the requested time off period overlaps with another scheduled calendar event.

## Managing Time-Off Requests as a Group

To manage the requests as a Group, on the Tool bar, click **Group Actions**; a menu appears listing the available Group Actions.



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The options listed are:

- **Approve all without Violations**
- **Tentatively Approve all without Violations**
- **Deny any with Violations**
- **Confirm all Tentative Approvals**
- **Remove all Tentative Approvals**

## Creating a New Time-Off Request

***Note:*** You can create only time-off requests for your agents from this page.

To create a new time-off request:

| Step | Action |
|---|---|
| 1 | On the Tool bar, click **Create New Request**.<br>A pop-up window is displayed, enabling you to create a new time-off request. |

**—End—**

You should specify information such as **Time Off Type**, **Time Off Hours** and **Comment**.

You must provide at least one time-off choice. You can specify the rank of the time-off choice by selecting the **Time Off Choices** row, and then using the Tool bar button to move it up or down.

You can also choose to have your request waitlisted if it cannot be approved at this time. See Waitlisting for more information.

To add a new Time Off Choice, click **Add**.

To delete a Time Off Choice, select it and click **Delete**.

## Withdrawing Approved Time-Off Requests

Previously, agents could only withdraw pending time-off requests. Agents can now attempt to withdraw requests for time-off that have already been approved.



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When a time-off request is withdrawn, the hours used from the Time-Off allocation are restored and made available for other agents. Once the request has been withdrawn, the agent's schedule that is underlying the time-off will be published. Alternatively, managers can set up an approval process so that they can manually approve the withdrawal. Filing rules can be applied for auto-approval or a withdrawal request.

## Waitlisting

Normally, when an agent withdraws an approved time-off request, the system checks to see if there are any other pending requests that can use the time-off allocation. However, when auto-processing rules are being used, requests filed at a time when there is no available time-off allocation available are denied, and not left pending.

To respond to this situation, managers can now add waitlist criteria to time-off auto-processing rules, as well as manually waitlist agents' requests, approve waitlisted requests, or deny waitlisted requests when they manually process requests.

## Purging Requests

Use the **Purging** tab of the **Request Management** section of the **App Admin** module to purge (remove) requests from the database.

This page has the following controls:

- **Request Type**—Choose the type of request to be purged.

  The purge can be applied to the agents of the current organization or can include the agents at the child organizations.

- **For requests created from**—You can purge requests from the current organization or from an entire organization branch.

You can limit the effects of the purge using one of the following:

- **All requests of this type**—Purge this type of request without considering a date.
- **Requests created more than <number> days in the past**—Select a date boundary based on the requests' creation date for the purge.
- **Requests created during <start_range> - <end_range>**—Select a date range for a purge based on the requests' creation date.
- **Requests created during <start_range> - <end_range>**—Select a date range for a purge based on the requests' start date.

Click **Delete Requests** to remove the requests.

Click **Revert** to cancel your changes.



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# Managing Shift Swapping

In addition to the optional time-off features described in "Managing Time Off" (page 117), Workforce Management also allows your agents to use their web browser to securely:

- Post, negotiate, and request shift swaps via an online swap board — which is monitored by an automatic conflict checker and forwarded to managers for quick and easy processing.
- View schedule and time-off information, with the ability to check the status of shift swaps, time off, and vacation requests.

As administrator, you can configure shift-swap settings to your organization's needs.

This chapter covers:


- "Configuring Shift Swap Settings" (page 139)
- "Managing Shift Swap Requests" (page 145)


## Configuring Shift Swap Settings

You use the **Request Management** section of the **App Admin** module to configure shift-swap settings.

### Settings

Use the **Settings** tab to control how time-off requests, waitlists, shift swap requests, and shift bidding are handled for a specific organization.

In addition to the Organization selection pane, the other pane of the **Settings** page consists of the following containers:

- *Time Off Management Activation*
- *Agent Workflow Options*
- *Time Off Year*
- *Time Off Waitlist*
- *Shift Swap*



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- *Shift Bidding* (only relevant if you are licensed for the optional Shift Bidding feature)
- *Time Off Calendar Colors*
- *Time Off Management Policies*
- *Shift Swap Policies*
- *Shift Bidding Policies* (only relevant if you are licensed for the optional Shift Bidding feature)

Only the containers relevant to Shift-Swap management are discussed in this section.

### Shift Swap

The settings in this container affect how agents can swap shifts:

- **Enable Shift Swap**—Turns on and off shift swap functionality for the whole organization or branch.
- **Limit agents' shift swapping to the following organizations**—Agents can swap only with agents from the organizations listed here.
- **Disable one-way swaps**—Disallow swaps where one agent acquires a shift without giving another shift back.
- **Allow partial day shift swap requests**—Agents can propose swapping only a portion of their shift instead of an entire shift, or can propose swapping portions with more than one agent.
- **Allow pickup of a portion of a posting**—Agents can accept a portion of a proposed shift swap instead of an entire shift, and can accept portions from more than one agent.

### Shift Swap Policies

Use this area to enter text about shift swap policies and procedures. These policies can then be viewed by agents.

## Managing Shift-Swap Requests

### Viewing Requests

Use the **Agent Requests** section of the **Requests** module to view agent requests. Click on the top of a column to sort by the column. Click again to reverse the sort order.

Use the date range selector to filter requests by their start and end dates.



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The columns displayed on the **Agent Requests** page are determined by the type of request you are displaying. If you are viewing multiple types of requests at the same time (the default), you see only those columns that the request types have in common.

For your reference, a brief description of each column is listed below:

| Column | Description |
|---|---|
| **Name** | The employee's name. |
| **Status** | An icon showing the current stage in the request processing, such as pending, approved, denied. The name of the status is displayed when you hover the cursor over the icon. The status icons are: |
| |  The request has been approved. Below this icon you may see an additional icon if you have requested withdrawing the time-off request. |
| |  A request to withdraw the approved time-off request is in progress. |
| |  A request to withdraw the approved time-off request has been rejected. |
| |  The request has been denied. |
| |  The request has been escalated. |
| |  The request has expired. |
| |  The request is in negotiation. |
| |  The request is invalid. |
| |  The request is pending approval. |
| |  The request has been waitlisted. (A request that has been denied can be waitlisted for approval if conditions change.) |
| |  The request has been tentatively approved. |
| |  The request has been withdrawn. |
| **Type** | The type of request: time off, shift swap, or shift bidding. |
| **Submitted** | The date on which the request was submitted. |
| **Last modified** | The date on which the request was last changed. |
| **Expired** | Whether the request has expired (**Yes**) or not. |
| **Comments** | The text of any comments entered by the manager or agent. |



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| Column | Description |
|---|---|
| **Alerts** | Icons showing which request validation rules are violated by this request. The rule name is displayed when you hover the cursor over the icon. See the alerts list in"Managing Shift Swap Requests One by One" (page 145) for more information on these icons. |
| **Actions** | Clickable icons for editing, approving, denying, or other status changes for the request. See the table in"Managing Shift Swap Requests One by One" (page 145) for more information on the action icons. |

The following columns are specific to Time Off requests:

| Column | Description |
|---|---|
| **Start** | The time stamp of the beginning of the requested time off. |
| **End** | The time stamp of the end of the requested time off. |
| **Length** | The duration of the requested time off. |
| **Hours Accounted** | The number of the employee's time-off hours involved in the request. |
| **Seniority** | Start date for agents associated with the request. |

The following columns are specific to Shift Swap requests:

| Column | Description |
|---|---|
| **Shift Date** | The date on which the shift offered for swap takes place. |
| **Start** | The time (in the viewing time zone) when the shift starts. |
| **End** | The time (in the viewing time zone) when the shift ends. |
| **Post Expires** | The time by which agents expect the swap to be finalized. |
| **Swap Type** | Whether the swap is one-way or two-way. (In a one-way swap, one agent takes over another's shift without giving one in return.) |
| **Partial Shift** | Shows whether the shift swap being proposed is partial. (Shifts can be swapped either entirely or partially. In a partial shift swap, the agent can propose swapping only a portion of the shift, or can propose dividing the shift into multiple portions, each of which can be swapped.) |

The following columns are specific to Shift Bid requests:

| Column | Description |
|---|---|
| **Bid Name** | The name given by the agent to the request. |


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| Column | Description |
|---|---|
| **Use Points** | Whether the employee has chosen to use accumulated bonus points in this bid. |
| **Seniority** | The employee's start date in the company. |
| **Rank** | The employee's rank in the company. |
| **Points** | Bonus points are provided to encourage employees to bid on unpopular schedules. This column shows the number of bonus points available to the employee. |
| **Bonus** | The number of bonus points awarded for this shift. |
| **Score** | The calculated score of the shift bidding request. The score weights the request against other requests for the same shift. |
| **Preferences** | The preference level selected by the employee for the specific schedule that is being requested. |

## Filtering Requests

By default, the **Agent Requests** section of the **Requests** module uses the predefined filter **All Active**, which does not include expired and withdrawn requests of all three types, or invalid requests of Time Off and Shift Swap type. In addition, you can select the predefined filter **Active**, which display all the requests for the selected time range. You can also create your own filters.

To filter out unwanted requests:

| Step | Action |
|---|---|
| **1** | In the **View** field at the top left of the page, select one of the predefined filters or select **Create Filter** or **Edit Filter** to create or edit a filter. When you select **Create Filter** or **Edit Filter**, the **Request Filter** page is displayed. |

**—End—**

To create a new filter:

| Step | Action |
|---|---|
| **1** | In the upper left pane, select the organization(s) to filter. When you select an organization, all its suborganizations are automatically selected as well. |
| **2** | Select the request type. |



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The working pane refreshes to display the items relevant to the selected request type.

3 For each item you want to filter by, type a value or make a selection from the drop-down menus.

4 Click **Save As**, and the type a name at the top of the pop-up window.

5 Click **Save** to save the filter and return to the previous page.

**—End—**

To edit an existing filter:

| Step | Action |
|---|---|
| 1 | For each field you want to change, select or deselect an operator and type or select a value from the list. |
| 2 | Click **Save** to save the filter and return to the previous page. |

**—End—**

To delete an existing filter:

| Step | Action |
|---|---|
| 1 | From the **Filter** menu on the upper right, select the filter you want to delete. |
| 2 | Click **Delete**, and then click **OK** to confirm the deletion and return to the previous page. |

**—End—**

To show only requests for a specific agent, in the **Find** field at the top left of the page, specify the agent's name, and then click the **Go** button beside it. The agent name criteria is applied on top of the selected filter.

## Customizing the Columns Displayed for Requests

To customize the columns displayed:



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| Step | Action |
|---|---|
| 1 | In the **Customize** field at the top right of the page, select **Edit**. The **List Configuration** page opens. |
| 2 | Select the desired configuration to edit using the drop-down list. |
| 3 | Move the desired properties from the left pane to the right pane using the arrows in the middle. |
| 4 | Click **Save** if you are editing an existing configuration setting, or click **Save As** to save a new configuration using a new name. |
| 5 | Click **Done** to exit this window without saving. |

**—End—**

### Request Alert Email Links

Depending on how alert rules have been configured for time-off and shift-swap requests, and shift bid auctions, employees and their managers may receive email notification. For those with the appropriate privileges (the employees involved and their managers, typically), the email contains a link that launches Workforce Management and displays the relevant request.

## Managing Shift Swap Requests

You can manage requests either one by one, or as a group.

### Managing Shift Swap Requests One by One

The icon buttons in the **Actions** columns allow you to manage pending requests. (If you do not see the **Actions** column, you need to customize the display to make sure it is chosen.)

The available buttons are:

| Icon | Usage |
|---|---|
|  | Approve the request. The schedule information is updated for Forecasting and Scheduling, and alerts, if configured, are sent. |
|  | Deny the request. |
|  | Edit the request. |
|  | Withdraw the request. |



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| Icon | Usage |
|---|---|
|  | Tentatively approve the request.<br>Requests that have been tentatively approved display the status **Pending** to the agents that submitted them, but display the status **Tentative** to you until you either confirm the request or publish the schedule. |
|  | View the details of the request. A pop-up window opens that provides several groups of information, each in its own container.<br>For Shift Swap Requests, you see:<br>• **General Information:**<br>This container lists the employees' shifts to be swapped. Shift information includes shift type and date. It also contains information regarding the expiration of the request.<br>• **Alerts Information:**<br>Displays the icons and a description for any failed validations. See the following table for additional information.<br>• **Status Information:**<br>Contains the modification history (audit trail) of the Shift Swap Requests. |

The **Alerts** column shows you any violations of filing rules for the requests:

- **Both agents are from the same organization.**

  This rule is violated if employees are assigned to different organizations.

- **Both agents are from the same campaign.**

  This rule is violated if both shifts in a swap do not belong to the same campaign. They can be in different campaign-weeks.

- **Both agents have the same skills for the active campaign queue.**

  This rule is violated if the receiving agent does not have the same skills as the agent currently scheduled to work the shift.

- **Both agents have the same proficiencies for the active campaign queue.**

  This rule is violated if the receiving agent does not have the same skills and proficiencies as the agent currently scheduled to work the shift.

- **Request complies with filing rules.**

  This rule is violated if the request submittal date violates at least one of the filing rules applicable to the requester's organization.

- **Both agents comply with min/max hours.**



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This rule is violated if, after the swap, at least one of the employees will not comply with the min/max hours during the corresponding week(s) of the shift they get and the shift they give away in the swap.

- **Swapped shifts start on the same organization week.**

  This rule is violated if the shift swap request fails the earlier validation rule, both agents are from the same organization, or if the swapped shifts do not fall within the same organization week.

- **Swapped shifts have the same paid hours.**

  This rule is violated if the total duration of paid time in the two shifts is different.

- **Swapped shifts must overlap the exact same portion with scheduled calendar events and time offs, and not overlap unavailabilities.**

  This rule validates the following for each employee:

  — Calendar events, which may or may not be inside a shift, do not overlap the exact same portion of the swapped-in shift .

  — Time-off events, which may or may not be inside a shift, do not overlap the exact same portion of the swapped-in shift.

  — Any unavailability type event does not overlap with the swapped shifts as the result of the swap.

- **Swapped shifts will overlap scheduled calendar events that must occur during a shift.**

  This rule is violated if calendar events, which have to be inside a shift, fall outside of shifts as the result of the swap.

- **Partial Shift Swap: Minimum duration of the shift that can be swapped: <x> Minutes/Percent.**

  This rule is violated if the duration of the swapped shift is less than the specified duration.

- **Partial Shift Swap: Minimum duration of the shift to leave after pickup: <x> Minutes/Percent.**

  This rule is violated if the remaining shift duration after the swap is less than the specified duration.

- **Partial Shift Swap: Maximum shift duration allowed: <x> minutes per Organization Day/Rolling 24 Hour Period.**



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This rule is violated if the total shift duration as a result of the swap is greater than the specified maximum. This rule can be applied in two ways:

— For the organization day: the shift duration is calculated using the organization day boundaries.

— For a rolling 24-hour period: the rule considers a rolling 24-hour period before and after the shift for the duration calculation.

- **Partial Shift Swap: Activities that cannot be included in the swap: <activity name(s) from drop-down>.**

  This rule is violated if the swap includes any of the specified activities.

- **Partial Shift Swap: Gap should be between <x> and <y> minutes, or at least <z> minutes.**

  This rule is violated if the gap created as a result of the swap is outside the specified range, or if the gap is less than the specified duration. If both the range and the minimum are specified, the rule will be violated only if both the conditions are violated.

- **Partial Shift Swap: Maximum overlap with an existing shift: <x> minutes.**

  This rule is violated if the overlap with an existing shift caused due to the swap is greater than the specified duration.

### Managing Requests as a Group

To manage the requests as a Group, on the Tool bar, click **Group Actions**; a menu appears listing the available Group Actions.

The options listed are:

- **Approve all without Violations**
- **Tentatively Approve all without Violations**
- **Deny any with Violations**
- **Confirm all Tentative Approvals**
- **Remove all Tentative Approvals**

## Purging Requests

Use the **Purging** tab of the **Request Management** section of the **App Admin** module to purge (remove) requests from the database.

This page has the following controls:

- **Request Type**—Choose the type of request to be purged.

  The purge can be applied to the agents of the current organization or can include the agents at the child organizations.



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- **For requests created from**—You can purge requests from the current organization or from an entire organization branch.

You can limit the effects of the purge using one of the following:

- **All requests of this type**—Purge this type of request without considering a date.
- **Requests created more than <number> days in the past**—Select a date boundary based on the requests' creation date for the purge.
- **Requests created during <start_range> - <end_range>**—Select a date range for a purge based on the requests' creation date.
- **Requests created during <start_range> - <end_range>**—Select a date range for a purge based on the requests' start date.

Click **Delete Requests** to remove the requests.

Click **Revert** to cancel your changes.



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# Managing Shift Bidding

In addition to the time-off and shift-swap features described in "Managing Time Off" (page 117) and "Managing Shift Swapping" (page 139), Workforce Management provides an optional feature, shift bidding.

Agents can submit bids for selected shift assignments, view schedule and time-off information, and check the status of their shift bids.

Workforce Management Express not only automates Shift Bidding, but also introduces a higher degree of fairness in awarding shifts. The automated rules engine factors in seniority, rank, and unique “tie-breaking” bonus points, and assigns shifts accordingly. Managers or supervisors can allocate bonus points to staff to recognize past hard work and extra effort, and employees can choose to use the bonus points to elevate their position in the bid. The system also immediately notifies agents of the chances of getting their shifts, setting expectations ahead of time.

As administrator, you can configure shift-swap settings to your organization’s needs.

This chapter covers:


- "Configuring Shift Bidding Settings" (page 151)
- "Setting Shift-Bidding Request Validation Rules" (page 153)
- "Setting Shift-Bidding Request Filing Rules" (page 154)
- "Configuring Auto Processing" (page 155)
- "Managing Shift-Bid Auctions" (page 156)
- "Managing Shift Bidding Requests" (page 170)
- "Purging Requests" (page 177)


## Configuring Shift Bidding Settings

You use the **Request Management** section of the **App Admin** module to configure shift-swap settings.



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## Settings

Use the **Settings** tab to control how time-off requests, waitlists, shift swap requests, and shift bidding are handled for a specific organization.

In addition to the Organization selection pane, the other pane of the Settings page consists of the following containers:

- *Time Off Management Activation*
- *Agent Workflow Options*
- *Time Off Year*
- *Time Off Waitlist*
- *Shift Swap*
- *Shift Bidding* (only relevant if you are licensed for the optional Shift Bidding feature)
- *Time Off Calendar Colors*
- *Time Off Management Policies*
- *Shift Swap Policies*
- *Shift Bidding Policies* (only relevant if you are licensed for the optional Shift Bidding feature)

Only the containers relevant to Shift-Bidding management are discussed in this section.

### Shift Bidding

The settings in this container affect how agents can bid on shifts:

- **Max preference value (1-highest, max -lowest)**— When an agent creates a shift bidding request, the preference value helps sort the requests. The recommended value is 5, but if you expect agents to submit many requests, they may need more preference granularity.
- **Max bids per employee**—the max number of bids an employee can submit in one schedule auction (usually a week).

The following scoring factors may be used to provide weight coefficients when prioritizing shift bidding requests:

- **Seniority**
- **Rank**
- **Bonus**

When you create a scheduled auction for a specific week, you decide whether to use the scoring system with these coefficients or not.



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If scoring is used in an auction, the score is calculated as follows:

**<Seniority Factor> * <number of months in the company> + <Rank factor * <Max Rank - Employee Rank> + <Bonus factor> * <total accumulated and assigned bonus>**

***Note:*** If you don't want to use a particular factor in your scoring, set it to zero.

### Shift Bidding Policies

Use this area to enter text about shift bidding policies and procedures. These policies can then be viewed by agents.

## Setting Shift-Bidding Request Validation Rules

Use the **Validation** tab of the **Request Management** section of the **App Admin** module to set validation rules.

Select the rules you want to use to validate time off, approved time-off withdrawal, swift swap, and shift bidding requests. The validation icon will appear on both the administrator and agent request pages.

Click **Save** to save your changes.

Click **Cancel** to cancel your changes and return to the previous screen.

Click **Revert** to cancel your changes and remain on the current screen.

### Shift Bidding Request Validation Rules

The validation rules for shift bidding requests are listed below:

- **Request complies with filing rules.**

  This rule is violated if the request submittal date violates at least one of the filing rules applicable to the requester's organization.

- **Agent's schedule complies with min/max hours.**

  This rule is violated if the requested schedule does not comply with the employee's min/max hours for the week of the auction.

- **Agent has sufficient skills for the selected schedule.**

  This rule is violated if the employee does not have the skills as the phantom employee for whom the schedule is generated.

- **Agent's schedule complies with organization hours of operation.**

  This rule is violated if any of the requested shifts in the shift bid fall outside of the employee organization's hours of operation.



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## Setting Shift-Bidding Request Filing Rules

Use this page to view and edit request filing rules. Click on the top of a column to sort by the column. Click again to reverse the sort order.

This table shows the filing rules for time off, shift swapping, and shift bidding that have been defined for each organization. The following columns are defined on this page.

- **Apply**—This column controls whether the rule is applied to the current organization. The rules of a parent organization flow down to the child organizations. The rules defined in a parent organization can be optionally applied to a child organization. If a rule defined in a parent is not applied to a child organization, the rule is not used for the child organization. It is legal for a grandchild organization to differ with the child organization. When the checkbox is changed, **Save Applied** must be used to save changes. When applied settings are saved, the child organizations are changed to match the parent's applied state. Only the changes are copied to the children.
- **Request Type**—This column shows the request type, which can be either time off, approved time off withdrawal, shift swap, or shift bidding.
- **Which Request**—This column shows the criteria that will be used to determine which requests are affected by the rule.
- **When to file**—This column shows when the requests must be filed.
- **Owner Organization**—This column shows where the rule was created. A rule can be modified only if you have selected its owner organization.

Click **Save Applied** to save the applied checkbox column changes.

Click **Create New Rule** to create a new filing rule for Time Off or Shift Swap. This button displays a pop-up window to allow you to select the kind of rule to create.

Click **Copy Rule** to copy a selected rule to another organization. It is not necessary to copy a rule to a child organization because rules flow down to child organizations naturally. This button is useful when copying a rule to a sibling organization.

Click **Edit Rule** to modify the selected rule.

Click **Delete Rule** to remove the selected rule. The rule is removed from the selected organization and its child organizations.



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# Configuring Auto Processing

This table allows you to control the auto-processing rules for time off, approved time off withdrawal, shift swap, and shift bidding for each organization.

The following columns are defined on this page.

- **Apply**—This column controls whether the rule is applied to the current organization. The rules of a parent organization flow down to the child organizations. The rules defined in a parent organization can be optionally applied to a child organization. If a rule defined in a parent is not applied to a child organization then the rule is not used for the child organization. It is legal for a grandchild organization to differ with the child organization. When the checkbox is changed, **Save Applied** must be used to save changes. When applied settings are saved, the child organizations are changed to match the parent's applied state. Only the changes are copied to the children.
- **Request Type**—This column shows the request type, which can be either time off, approved time off withdrawal, shift swap, or shift bidding.
- **Which Request**—This column shows the criteria that are used to determine which requests are affected by the rule.
- **How to Auto-process**—This column shows the criteria used to approve or deny a request.
- **Owner Organization**—This column shows where the rule was created. A rule can be modified only if you have selected its owner organization.

Click **Save Applied** to save the applied checkbox column changes.

Click **Create New Rule** to create a new filing rule for Time Off, Approved Time Off Witdrawal, Shift Swap, or Shift Bidding. This button displays a pop-up window to allow you to select the kind of rule to create.

Click **Copy Rule** to copy a selected rule to another organization. It is not necessary to copy a rule to a child organization because rules flow down to child organizations naturally. This button is useful when copying a rule to a sibling organization.

Click **Edit Rule** to modify the selected rule.

Click **Delete Rule** to remove the selected rule. The rule is removed from the selected organization and its child organizations.



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# Managing Shift-Bid Auctions

If you have licensed the optional Shift Bidding feature, in order for a shift auction to exist, you need a schedule. Moreover, you need a schedule with shifts not assigned to specific employees. The shifts available for bidding are created within Forecasting and Scheduling, when your scheduler generates a schedule in one of two ways:

- by scheduling either both employees and employee templates (also known as phantoms), or just employee templates
- by scheduling employees, and then converting one or more specific employee shift assignments to phantoms

Once the phantom shifts exist, you can allow employees to submit bids for their preferred schedules. Bids can be prioritized based on a variety of criteria, including a scoring system of accrued points.

## Settings Tab

Use this tab to view or modify Shift Bid Auction settings.

If you have not selected an auction name in the Selection Pane at the left, the right side of the window allows you to create a new one. If you have selected an auction, the right side allows you to edit its settings.

***Note:*** If you have already selected an existing shift bid auction, but you want to create a new one, click the **Create** button.

### Creating a New Auction

To create a new shift bid auction (when you have not selected an auction name in the Selection Pane at the left):

| Step | Action |
|---|---|
| **1** | Specify a name for the new Shift Bid Auction. |
| **2** | Select a status (**Open** or **Closed**).<br>***Note:*** If an auction's status is **Closed**, employees cannot submit bids for that auction. You can use this restriction if you cannot complete an auction's settings in one session. Until you complete the auction's settings, keep its status **Closed**. Then, once you have completed the settings, change its status to **Open**, thus allowing employees to submit bids. |
| **3** | Select the scheduling period.<br>***Note:*** To create a Shift Bid Auction, you require the availability of future scheduling periods for campaigns to which the user has privileges. |



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4 Select the bidding mode, either full period schedules or a combination of individual shifts.

(When an agent bids on a full period schedule, it means that the agent bids on a specific schedule for the whole scheduling period, whereas bidding on a combination of individual shifts allows the agent to pick and choose different shifts from each day of the scheduling period. As an example, if there are five possible shifts on which to bid, shift A through shift E, a full period schedule means the agent must select A, B, C, D, or E. A combination of individual shifts allows the agent to select A for one day, D for the next day, and so on.)

5 Specify the deadline for bids.

6 If appropriate, type the number of bonus points to be awarded to those employees who have placed bids on this auction but did not get any of their requests approved.

7 Specify by clicking the check box whether the scoring system should be used for this auction (that is, whether employees can use their accumulated points for this auction).

***Note:*** Employees can use their points when placing a bid to improve their Bid Rank when an auction is configured to use scoring.

8 Specify whether employees can only bid on the schedule for their own organization.

9 Click **Save**.

**—End—**

## Updating Existing Auctions

To update an existing shift bid auction:

| Step | Action |
|---|---|
| 1 | From the Selection Pane, select an existing shift bid auction. |
| 2 | Change the information as needed.<br>Some information cannot be modified once an auction has been created. |
| 3 | Click **Save**. |

**—End—**



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## Closing an Existing Shift Bid Auction

To close an existing shift bid auction:

| Step | Action |
|---|---|
| 1 | From the Selection Pane, select an existing shift bid auction. |
| 2 | Click **Close Auction**.<br>A pop-up menu is displayed with two buttons:<br>• **Close and Assign None Approved Bonus**<br>• **Close without Assigning None Approved Bonus** |
| 3 | Click one of the two buttons as appropriate.<br>Duplicate None Approved Bonus Points are *assigned* if the same auction is opened or closed more than once and you click **Close** and **Assign None Approved Bonus** each time. |

**—End—**

## Deleting an Existing Shift Bid Auction

To delete an existing shift bid auction:

| Step | Action |
|---|---|
| 1 | From the Selection Pane, select an existing shift bid auction. |
| 2 | Make sure the auction is closed. If not, change its Auction Status to **Closed**, and then click **Save**. |
| 3 | Click **Delete**. (The **Delete** button is only enabled when you have selected a closed auction) |

**—End—**

## Definition of Some Terms

The following terms are important to understand in the context of Shift Bid Auctions:

- **None Approved Bonus**

  Bonus Points assigned to employees who have placed bids on this auction but did not get any of their requests approved.



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- **Use Scoring**

  Specifies whether employees can use their accumulated points for this auction.

  ***Note:*** Employees can use their points when placing a bid to improve their Bid Rank when an auction is configured to use scoring.

## Schedules Tab: Viewing and Modifying Bonus Points

Use the **Schedules** tab to view biddable schedules and specify the bonus points associated with them.

***Note:*** Schedules are only displayed if they contain phantom shift assignments. As mentioned previously, there are two ways for a scheduler to create phantom shift assignments within Forecasting and Scheduling, which can be used concurrently.
The first method is to generate the schedule using Staffing Profiles (also referred to as Employee Templates). Phantom shift assignments are created for the Staffing Profiles.
The second method is to convert specific employee shift assignments to phantoms.

To view schedules associated with a Shift Bid Auction, from the Selection Pane, select a shift-bid auction.

The associated biddable schedules are shown in the Work Pane.

To update any schedules associated with a shift-bid auction:

| Step | Action |
|---|---|
| **1** | From the Selection Pane, select a shift-bid auction. |
| **2** | Specify bonus points for each schedule.<br><br>***Note:*** These bonus points are provided to encourage employees to bid on unpopular schedules. The **Bonus Point** item on the **Schedule Page** is enabled even in auctions where **Use Scoring** is not enabled, allowing employees to accumulate these points for future use. |
| **3** | Click **Save** to update the schedule information. |

**—End—**

## Employees Tab

Use the **Employees** tab to view or modify the employees (bidders) associated with a shift bid auction.



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To view the employees associated with a shift bid auction, select a shift bid auction from the Selection Pane. Those employees without a shift assignment for that auction are shown in the working pane, which is labeled **Employees**. Note that you can paginate the information displayed, that is, you can control the number of employees displayed at a time.

To add employees to a selected shift bid auction:

| Step | Action |
|---|---|
| 1 | Select one or more employees displayed in the **Employees** working pane who have not yet been added to the auction.<br><br>***Note:*** Employees do not need to be selected if you are adding all employees currently waiting to be added. |
| 2 | Click **Add to Auction**. A form is displayed allowing you to specify such information as the bidding deadline.<br><br>You must add those employees who are not being displayed because of the pagination settings separately, as you are informed by the note at the top of the form: **Action will only apply to records in current page**.<br><br>***Note:*** The typical way in which employees are notified that they have been added to a shift bid auction is by email. Depending on the employee's privileges and the manager's privileges, the email they receive might contain a link that will open Workforce Management with the relevant request displayed.<br>Unless your particular situation allows you to personally notify your employees, verify with your administrator that email alerts have been configured. |

**—End—**

To remove one or more employees from a selected shift bid auction:

| Step | Action |
|---|---|
| 1 | In the **Employees** working pane, select one or more employees (who were added to the auction). |
| 2 | Click **Remove from Auction**. |

**—End—**



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Depending on your system's configuration, you can change bid deadlines and bonus points for employees currently part of the auction.

To change bid deadlines or bonus points:

| Step | Action |
|---|---|
| 1 | Change the deadline.<br>If the shift bid auction is configured to use bonus points, the **Bonus** column is shown. |
| 2 | Change the bonus points assigned to an employee as appropriate. |
| 3 | Click **Save**.<br>***Note:*** Bonus points given in this way are not accumulated. They are used at your discretion to give an advantage in this shift auction for selected employees. |

**—End—**

To enter a bid for an employee:

| Step | Action |
|---|---|
| 1 | Select a single employee who has already been added to the auction. |
| 2 | Click **Bid for Employee**. Fill in, as appropriate, the Bid Options page that is displayed. |

**—End—**

## Adding Employees to an Auction Serially

In conjunction with auto-approval of shift bid requests, you can add eligible employees to an auction serially. Eligible employees are those who:

- have been added to the campaign
- have **not** yet been added to the auction
- have **not** yet been assigned a shift for the campaign

To add employees serially to a selected Shift Bid Auction

| Step | Action |
|---|---|
| 1 | Click **Add Serially**. |



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**—End—**

A pop-up dialog box allows you to specify the order in which employees are to be added (by seniority, rank, score, or bonus). The dialog box also allows you to specify a maximum time interval for an employee to submit a bid.

You must add those employees who are not being displayed because of the pagination settings separately, as you are informed by the note at the top of the form: **Action will only apply to records in current page**.

Once an employee has been added to the auction, an alert message is sent to the employee (see the previous note about configuring alerts), who then has to submit a schedule bid within the specified interval. The next employee is added and notified either when the current employee's shift bid is approved, or when the time limit expires. (The expiration timer only runs during the campaign's hours of operations.)

An employee whose time has expired is still allowed to submit shift bids, but runs the risk of having to bid for the less desirable schedules.

Once clicked, the **Add Serially** button changes to **Stop Serialized Add**. You can stop the serial addition of employees to the auction by clicking this button and answering **Yes** to the confirming pop-up window that appears. To restart the process, click **Add Serially** again.

> ***Note:*** You can add an employee to the auction manually, bypassing serialization mode, but in this case, employees might be competing for the same schedule. The one whose request is auto-approved first gets the schedule. The other request turns into an invalid request.

For information on closing an auction, see *Closing an Existing Shift Bid Auction*.

## Bid Options Tab

Use this tab to view available biddable schedules or to create bids for employees.

To view schedules associated with a shift-bid auction:

| Step | Action |
|---|---|
| **1** | From the Selection Pane, select a shift-bid auction.<br><br>The associated biddable schedules are shown on the Work Pane. |



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**—End—**

To submit a bid on behalf of an employee:

| Step | Action |
|---|---|
| 1 | From the Employee drop-down menu located on the top right of the screen, select An employee. |
| 2 | Select a schedule if the auction is configured to bid on Full Schedule. |
| 3 | Select multiple schedules if the auction is configured to bid on Individual Shifts. |
| 4 | Click **Create**. The Shift Bid Request Form opens, allowing you to create a Shift Bid. |

**—End—**

## Understanding Bid Rank Information

Bid Rank shows the employee's rank for the biddable schedule.

In schedules for shift-bid auctions that use scoring, you might see a bid rank shown as 3(1). In such cases, the value in parentheses represents the bid rank if the employee were to apply points to the bid. The value outside of the parentheses represents the bid rank if the employee were not to apply points to the bid.

## Sorting and Filtering Shift Bid Requests

You can sort the biddable schedules by clicking the column heading. An arrow appears to the right of the column heading, showing the direction of the sort.

You can click on additional columns—the system sorts the biddable schedules by the last three columns selected. The last column selected is the primary sort. For example, by clicking on the Preference column, then the Bonus column, and then twice on the Hours column, the display is sorted primarily by the number of hours, highest to lowest, then by Bonus (lowest to highest), and then by Preference, lowest to highest.

When you click one of the date column headers, it brings up a pop-up menu that allows you to sort that column by one of:

- **Shift Start**
- **Shift End**



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- **Shift Length**

You can display the settings that you currently have active for sorting by using the **Filter and Sort Settings** controls above the table showing your bid options.

You can scroll through the contents of the **Filter and Sort Settings** area using the scroll controls at its right side, or click the button to expand the area to show all your current settings.

You can also filter requests.

To create a filter:

| Step | Action |
|---|---|
| 1 | Click the **Filter** button.<br><br>The **Request Filter Configuration** window opens. |
| 2 | Select the options as desired for shifts and schedules, activities, and skills, and then click **Save**.<br><br>The available options provide a great flexibility for filtering, and are described in the following table: |

| Options | Description |
|---|---|
| **Shifts and Schedules** | |
| *Template Name* | You can filter on the name of the template. Template names are assigned to the phantom schedules by Forecasting and Scheduling, using the names the scheduler gave them on the Work Patterns tab of the Work Rules module. Template names are used for the phantom schedules only when the original scheduling within Forecasting and Scheduling was done with **Agents to Schedule** set to either **Staffing Profiles Only** or **Employees and Staffing Profiles**. |
| *Availability* | You can filter on the number of instances of a particular template that have not yet been bid upon. (Refer to the column Available on the Bid Options tab.) Choices are:<br>• **Any Number of Options**<br>No filtering is done for this characteristic.<br>• **Equal To**<br>Causes a field to appear where you specify the number of instances.<br>• **No More Than** |



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| Options | Description |
|---|---|
| | Causes a field to appear where you specify the number of instances.<br>• **No Less Than**<br>Causes a field to appear where you specify the number of instances.<br>• **Between**<br>Causes two fields to appear, where you can specify the range of instances. |
| *Schedule Length* | You can filter on the length (in hours) of a particular template. (Refer to the column Hours on the Bid Options tab.) Choices are:<br>• **Any Length**<br>No filtering is done for this characteristic.<br>• **Equal To**<br>Causes a field to appear where you specify the number of hours.<br>• **No More Than**<br>Causes a field to appear where you specify the number of hours.<br>• **No Less Than**<br>Causes a field to appear where you specify the number of hours.<br>• **Between**<br>Causes two fields to appear, where you can specify the range of the number of hours. |
| *Shift Name* | Similar in use to the **Template Name** option described previously. Shift names are used for the phantom schedules only when the original scheduling within Forecasting and Scheduling was done with **Agents to Schedule** set to **Employees Only** and, subsequently, the employees were converted to phantoms. |


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| Options | Description |
|---|---|
| *Shift Length* | You can filter on the length (in hours) of a particular shift (the number of hours on a particular day). Choices are:<br>• **Any Length**<br>No filtering is done for this characteristic.<br>• **Equal To**<br>Causes a field to appear where you specify the number of hours.<br>• **No More Than**<br>Causes a field to appear where you specify the number of hours.<br>• **No Less Than**<br>Causes a field to appear where you specify the number of hours.<br>• **Between**<br>Causes two fields to appear, where you can specify the range of the number of hours. |
| *Shifts Starting* | You can sort on the time that a shift starts. Choices are:<br>• **Any Time**<br>No filtering is done for this characteristic.<br>• **At**<br>Causes a time selector to be displayed, where you can select the exact shift start time on which you want to filter. A **Match all shifts in schedule** check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint.<br>• **Not After**<br>Causes a time selector to be displayed, where you can select the time at or before which the filtered shifts should begin (similar to a less than or equal to constraint). A **Match all shifts in schedule** check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint.<br>• **Not Before** |


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| Options | Description |
|---|---|
| | Causes a time selector to be displayed, where you can select the time at or after which the filtered shifts should begin (similar to a greater than or equal to constraint). A **Match all shifts in schedule** check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint.<br>• **Between**<br>Causes a time range selector to be displayed, where you can select a time range between which the filtered shifts should begin. A **Match all shifts in schedule** check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint. |
| *Shifts Ending* | You can sort on the time that a shift ends. Choices are:<br>• **Any Time**<br>No filtering is done for this characteristic.<br>• **At**<br>Causes a time selector to be displayed, where you can select the exact shift start time on which you want to filter. A **Match all shifts in schedule** check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint.<br>• **Not After**<br>Causes a time selector to be displayed, where you can select the time at or before which the filtered shifts should end (similar to a less than or equal to constraint). A **Match all shifts in schedule** check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint.<br>• **Not Before**<br>Causes a time selector to be displayed, where you can select the time at or after which the filtered shifts should end (similar to a greater than or equal to constraint). A **Match all shifts in schedule** check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint.<br>• **Between** |


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| Options | Description |
|---|---|
| | Causes a time range selector to be displayed, where you can select a time range between which the filtered shifts should end. A **Match all shifts in schedule** check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint. |
| **Activities** | |
| *Activity Name* | You can filter on the name of up to two activities within the schedules displayed. The activities shown are a function of the activities that your scheduler has created in Forecasting and Scheduling, and has checked as able to be part of a shift activity. For example:<br>• **Break**<br>• **CKA**<br>• **Late**<br>• **Learning Break** |
| *Length* | You can filter on the length (in hours) of a particular activity. Choices are:<br>• **Any Length**<br>No filtering is done for this characteristic.<br>• **Equal To**<br>Causes a field to appear where you specify the number of hours.<br>• **No More Than**<br>Causes a field to appear where you specify the number of hours.<br>• **No Less Than**<br>Causes a field to appear where you specify the number of hours.<br>• **Between**<br>Causes two fields to appear, where you can specify the range of the number of hours. |


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| Options | Description |
|---|---|
| *Starting* | You can sort on the time that an activity starts. Choices are:<br>• **Any Time**<br>No filtering is done for this characteristic.<br>• **At**<br>Causes a time selector to be displayed, where you can select the exact activity start time on which you want to filter. A **Match all shifts in schedule** check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint for that activity.<br>• **Not After**<br>Causes a time selector to be displayed, where you can select the time at or before which the filtered shifts should begin (similar to a less than or equal to constraint). A **Match all shifts in schedule** check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint for that activity.<br>• **Not Before**<br>Causes a time selector to be displayed, where you can select the time at or after which the filtered shifts should begin (similar to a greater than or equal to constraint). A **Match all shifts in schedule** check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint for that activity.<br>• **Between**<br>Causes a time range selector to be displayed, where you can select a time range between which the filtered shifts should begin. A **Match all shifts in schedule** check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint for that activity. |


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| Options | Description |
|---|---|
| **Skills** | |
| *Skills Associated with Shift* | Displays a two-column table. For managers, all skills defined are shown in the **Available Skills** column. (Agents only see the skills they themselves have.) Select (or multi-select) the skills on which you want to filter, and then click the right facing arrow button to move the skill(s) to the Selected Skills column (or the left facing arrow button to remove a skill from the Selected Skills column).<br><br>Additional radio buttons allow you to specify whether you want to filter for an exact match for the skills you have selected, or whether you want to see other possible matches. The available radio buttons are:<br><br>• **At Least These Skills**<br><br>You want to see any shifts that include the selected skills.<br><br>• **At Most These Skills**<br><br>You do want to see any shifts that include skills other than the ones you've selected, but you do want to see shifts that might not include all of the skills you have selected.<br><br>• **Exactly These Skills**<br><br>You only want to see shifts that include the selected skills. |

**—End—**

## Managing Shift Bidding Requests

The **Requests** module also allows you to manage shift bid requests.

### Viewing Requests

Use the **Agent Requests** section of the **Requests** module to view agent requests. Click on the top of a column to sort by the column. Click again to reverse the sort order.

Use the date range selector to filter requests by their start and end dates.



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The columns displayed on the **Agent Requests** page are determined by the type of request you are displaying. If you are viewing multiple types of requests at the same time (the default), you see only those columns that the request types have in common.

For your reference, a brief description of each column is listed below:

| Column | Description |
|---|---|
| **Name** | The employee's name. |
| **Status** | An icon showing the current stage in the request processing, such as pending, approved, denied. The name of the status is displayed when you hover the cursor over the icon. The status icons are: |
| |  The request has been approved. Below this icon you may see an additional icon if you have requested withdrawing the time-off request. |
| |  A request to withdraw the approved time-off request is in progress. |
| |  A request to withdraw the approved time-off request has been rejected. |
| |  The request has been denied. |
| |  The request has been escalated. |
| |  The request has expired. |
| |  The request is in negotiation. |
| |  The request is invalid. |
| |  The request is pending approval. |
| |  The request has been waitlisted. (A request that has been denied can be waitlisted for approval if conditions change.) |
| |  The request has been tentatively approved. |
| |  The request has been withdrawn. |
| **Type** | The type of request: time off, shift swap, or shift bidding. |
| **Submitted** | The date on which the request was submitted. |
| **Last modified** | The date on which the request was last changed. |
| **Expired** | Whether the request has expired (**Yes**) or not. |
| **Comments** | The text of any comments entered by the manager or agent. |



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| Column | Description |
|---|---|
| **Alerts** | Icons showing which request validation rules are violated by this request. The rule name is displayed when you hover the cursor over the icon. See the alerts list in "Managing Requests" (page 175) for more information on these icons. |
| **Actions** | Clickable icons for editing, approving, denying, or other status changes for the request. See the table in "Managing Requests" (page 175) for more information on the action icons. |

The following columns are specific to Time Off requests:

| Column | Description |
|---|---|
| **Start** | The time stamp of the beginning of the requested time off. |
| **End** | The time stamp of the end of the requested time off. |
| **Length** | The duration of the requested time off. |
| **Hours Accounted** | The number of the employee's time-off hours involved in the request. |
| **Seniority** | Start date for agents associated with the request. |

The following columns are specific to Shift Swap requests:

| Column | Description |
|---|---|
| **Shift Date** | The date on which the shift offered for swap takes place. |
| **Start** | The time (in the viewing time zone) when the shift starts. |
| **End** | The time (in the viewing time zone) when the shift ends. |
| **Post Expires** | The time by which agents expect the swap to be finalized. |
| **Swap Type** | Whether the swap is one-way or two-way. (In a one-way swap, one agent takes over another's shift without giving one in return.) |
| **Partial Shift** | Shows whether the shift swap being proposed is partial. (Shifts can be swapped either entirely or partially. In a partial shift swap, the agent can propose swapping only a portion of the shift, or can propose dividing the shift into multiple portions, each of which can be swapped.) |

The following columns are specific to Shift Bid requests:

| Column | Description |
|---|---|
| **Bid Name** | The name given by the agent to the request. |



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| Column | Description |
|---|---|
| **Use Points** | Whether the employee has chosen to use accumulated bonus points in this bid. |
| **Seniority** | The employee's start date in the company. |
| **Rank** | The employee's rank in the company. |
| **Points** | Bonus points are provided to encourage employees to bid on unpopular schedules. This column shows the number of bonus points available to the employee. |
| **Bonus** | The number of bonus points awarded for this shift. |
| **Score** | The calculated score of the shift bidding request. The score weights the request against other requests for the same shift. |
| **Preferences** | The preference level selected by the employee for the specific schedule that is being requested. |

## Filtering Requests

By default, the **Agent Requests** section of the **Requests** module uses the predefined filter **All Active**, which does not include expired and withdrawn requests of all three types, or invalid requests of Time Off and Shift Swap type. In addition, you can select the predefined filter **Active**, which display all the requests for the selected time range. You can also create your own filters.

To filter out unwanted requests:

| Step | Action |
|---|---|
| 1 | In the **View** field at the top left of the page, select one of the predefined filters or select **Create Filter** or **Edit Filter** to create or edit a filter. When you select **Create Filter** or **Edit Filter**, the **Request Filter** page is displayed. |

**—End—**

To create a new filter:

| Step | Action |
|---|---|
| 1 | In the upper left pane, select the organization(s) to filter. When you select an organization, all its suborganizations are automatically selected as well. |
| 2 | Select the request type. |



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The working pane refreshes to display the items relevant to the selected request type.

3 For each item you want to filter by, type a value or make a selection from the drop-down menus.

4 Click **Save As**, and the type a name at the top of the pop-up window.

5 Click **Save** to save the filter and return to the previous page.

**—End—**

To edit an existing filter:

| Step | Action |
|---|---|
| 1 | For each field you want to change, select or deselect an operator and type or select a value from the list. |
| 2 | Click **Save** to save the filter and return to the previous page. |

**—End—**

To delete an existing filter:

| Step | Action |
|---|---|
| 1 | From the **Filter** menu on the upper right, select the filter you want to delete. |
| 2 | Click **Delete**, and then click **OK** to confirm the deletion and return to the previous page. |

**—End—**

To show only requests for a specific agent, in the **Find** field at the top left of the page, specify the agent's name, and then click the **Go** button beside it. The agent name criteria is applied on top of the selected filter.

## Customizing the Columns Displayed

To customize the columns displayed:



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| Step | Action |
|---|---|
| 1 | In the **Customize** field at the top right of the page, select **Edit**. The **List Configuration** page opens. |
| 2 | Select the desired configuration to edit using the drop-down list. |
| 3 | Move the desired properties from the left pane to the right pane using the arrows in the middle. |
| 4 | Click **Save** if you are editing an existing configuration setting, or click **Save As** to save a new configuration using a new name. |
| 5 | Click **Done** to exit this window without saving. |

**—End—**

## Request Alert

Depending on how alert rules have been configured for time-off and shift-swap requests, and shift bid auctions, employees and their managers may receive email notification. For those with the appropriate privileges (the employees involved and their managers, typically), the email contains a link that launches Workforce Management and displays the relevant request.

## Managing Requests

You can manage requests either one by one, or as a group.

### Managing Shift-Bidding Requests One by One

The icon buttons in the **Actions** columns allow you to manage pending requests. (If you do not see the **Actions** column, you need to customize the display to make sure it is chosen.)

The available buttons are:

| Icon | Usage |
|---|---|
|  | Approve the request. The schedule information is updated for Forecasting and Scheduling, and alerts, if configured, are sent. In serialized shift bid auctions (see *Adding Employees to an Auction Serially*), employees can withdraw a shift bid request, even when it has already been approved. |
|  | Deny the request. |
|  | Edit the request. |
|  | Withdraw the request. |



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| Icon | Usage |
|---|---|
|  | Tentatively approve the request.<br>Requests that have been tentatively approved display the status **Pending** to the agents that submitted them, but display the status **Tentative** to you until you either confirm the request or publish the schedule. |
|  | View the details of the request. A pop-up window opens that provides several groups of information, each in its own container.<br>For Shift Bidding Requests, you see:<br>• **Shift Bid Request Information:**<br>This container displays Shift Bid Request information, and is editable when you are creating or updating a Shift Bid Request. The information includes the Bid Name, Preference Level (if applicable), and comments associated with the requests.<br>When an Auction is configured to use Bonus Points, a checkbox allowing you to specify Use Points is displayed. Keep in mind that using points might affect the rank on the Shift Bid Requests. This information is displayed in the Shift Bid Auction section of this Form.<br>• **Shift Bid Auction Information:**<br>This container displays associated Shift Bid Auction information and is not editable. The information in this container includes Scheduling Period and Deadlines.<br>• **Biddable Schedule Information:**<br>This container displays Shifts Assignment information for one or more selected Biddable Schedules and is not editable.<br>• **Alerts Information:**<br>Displays the icons and a description for any failed validations. See the following table for additional information.<br>• **Status Information:**<br>Contains the modification history (audit trail) of the Shift Bid Requests. |

The **Alerts** column shows you any violations of filing rules for the requests:

- **Request complies with filing rules.**

  This rule is violated if the request submittal date violates at least one of the filing rules applicable to the requester's organization.

- **Agent's schedule complies with min/max hours.**

  This rule is violated if the requested schedule does not comply with the employee's min/max hours for the week of the auction.

- **Agent has sufficient skills for the selected schedule.**



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This rule is violated if the employee does not have the same skills as the phantom employee for whom the schedule is generated.

- **Agent's schedule complies with organization hours of operation.**

  This rule is violated if any of the requested shifts in the shift bid fall outside of the employee organization's hours of operation.

### Managing Shift-Bidding Requests as a Group

To manage the requests as a Group, on the Tool bar, click Group Actions; a menu appears listing the available Group Actions.

The options listed are:

- **Approve all without Violations**
- **Tentatively Approve all without Violations**
- **Deny any with Violations**
- **Confirm all Tentative Approvals**
- **Remove all Tentative Approvals**

## Purging Requests

Use the **Purging** tab of the **Request Management** section of the **App Admin** module to purge (remove) requests from the database.

This page has the following controls:

- **Request Type**—Choose the type of request to be purged.

  The purge can be applied to the agents of the current organization or can include the agents at the child organizations.

- **For requests created from**—You can purge requests from the current organization or from an entire organization branch.

You can limit the effects of the purge using one of the following:

- **All requests of this type**—Purge this type of request without considering a date.
- **Requests created more than <number> days in the past**—Select a date boundary based on the requests' creation date for the purge.
- **Requests created during <start_range> - <end_range>**—Select a date range for a purge based on the requests' creation date.
- **Requests created during <start_range> - <end_range>**—Select a date range for a purge based on the requests' start date.

Click **Delete Requests** to remove the requests.

Click **Revert** to cancel your changes.



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# Managing Alert Rules

The **Tracking** module allows you, as administrator, to create and edit alert rules, which are used to specify those events in Workforce Management that generate alerts to specified users.

## Alert Rules

This section contains the following tabs:

- **Organization**—Create or edit alert rules pertaining to an organization.
- **Campaign**—Create or edit alert rules pertaining to a campaign. See "The Campaign Tab" (page 188).
- **System**—Create or edit alert rules pertaining to the Workforce Management system. See "The System Tab" (page 195).

Alert rules are used to specify events that generate alerts to specified users or targets. Currently the Alerts delivery media options are e-mail and pop-ups and pop-up alerts.

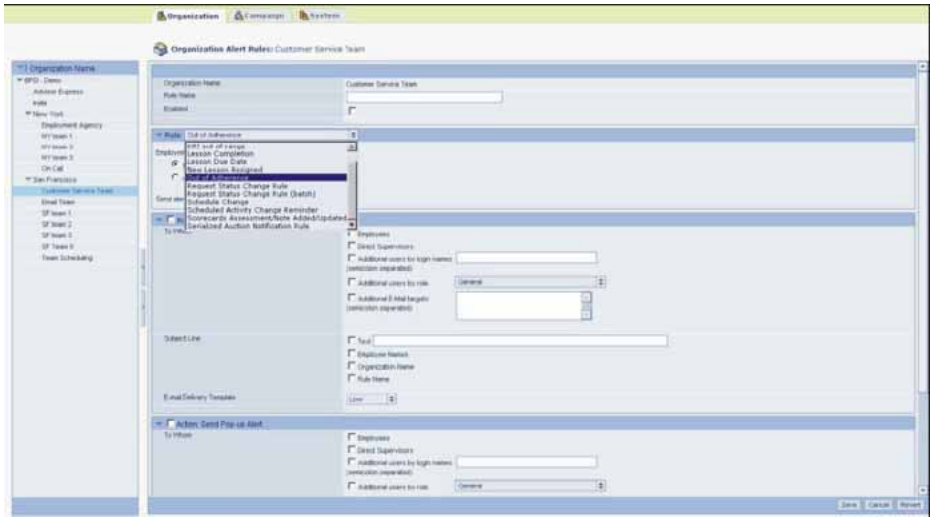
Alert rules are defined in relation to a scope (Organization, Campaign or System). Some rules are valid only within a certain scope.

### The Organization Tab

Use the **Organization** tab to create, edit, or delete alert rules for your organizations (depending on your privileges).



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As shown above, the following alert rule templates are currently available in Organization scope:

- **KPI out of range:** An alert is sent when a KPI falls outside a range. The alert is sent:
  - for all employees/organizations or any employee who has the job title specified in the rule
  - where the employee's/organization's KPI value/score is of the specified periodicity (daily, weekly, monthly, quarterly, or annually)
  - where the KPI value/score is less than or equal to/greater than or equal to a threshold (Excellent, Good, Average, Poor or Bad in case of score)
  - where the employee/organization has no dependencies on peer value or the employee/organization is below the specified percentile of his organization for **<X>** out of the last **<Y>** periods (as specified in the periodicity)

    ***Note:*** Where eLearning is also licensed, this alert rule can also be used to assign selected lessons, and/or assign lessons mapped to a specific competency.

  For example, a manager might receive a message similar to the following:

  **The following employees are found to be below thresholds defined for kpi CompetencyKPI for the rule Alert Rule All: Canfield, Heather; Jupin, Kimberley; Ligsay, George; Liter, Eric; Onken, Allison; Ruth, David; Yost, Brian**



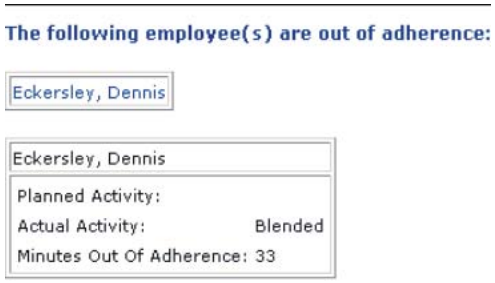
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- **Out of Adherence:** An alert is sent when an employee is out of adherence. Out of Adherence alert rules take one of two forms:
  - **Employee out of adherence for more than X minutes for activity Y:** If an employee is in a non-adhering state (continuously, for planned activity **Y**) for more than **X** minutes, an alert is sent. (If the duration of the planned activity **Y** is less than **X** minutes, the alert will not be triggered even if the employee has been out of adherence for more than **X** minutes on some other planned activities.)

    ***Note:*** Employees are not considered to be in a non-adhering state until they have been out of adherence for more than the tolerance (minutes) for the current planned activity.

  - **Employee out of adherence for more than X minutes for any activity:** If an employee is in a non-adhering state (continuously, for any planned activity) for more than **X** minutes, an alert is sent. In this case, the computation for **X** minutes is the same as that used for the **Out of Adherence** column on the **Quick View** tab (see the chapter "Using the Tracking Module," in the *Workforce Management Managers Guide* for more information on the **Quick View** tab).

    For example, the employee's manager might receive a message similar to the following:

- **Request Status Change Rule:** An alert is sent when an employee's time-off or shift-swap request changes status. For example:



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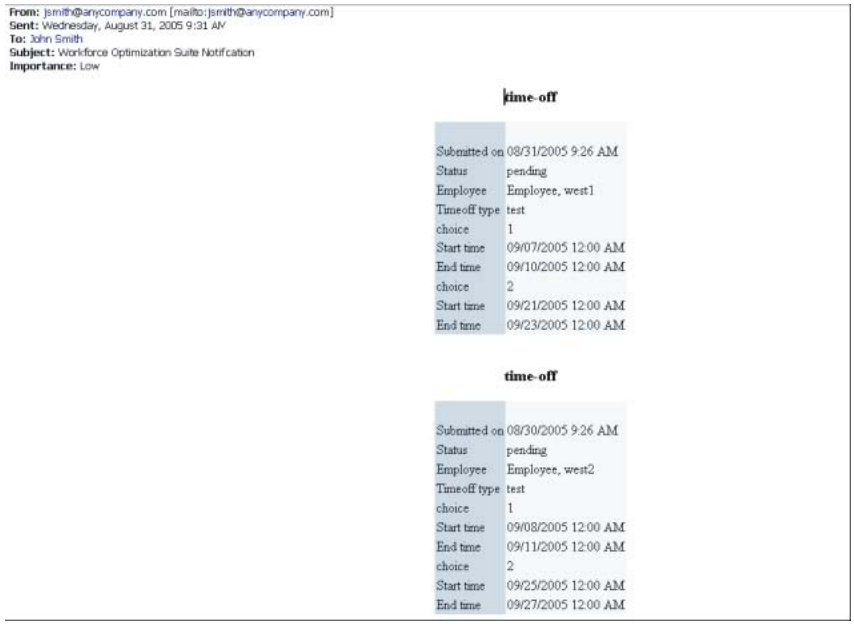
**time-off**

| | |
|---|---|
| Submitted on | 10/19/2007 2:25 PM |
| Status | approved |
| Employee | west, agent5 |
| Timeoff type | Vacation |
| Approved choice | 1 |
| Start time | 11/27/2007 10:00 PM |
| End time | 11/28/2007 10:00 PM |
| View Request | Link to Request |

***Note:*** Depending on the employee's privileges and the manager's privileges, the email they receive might contain a link that will open Workforce Management with the relevant request displayed.

- **Request Status Change Rule (batch):** The system checks at the specified intervals for changes in the requests of multiple, specified employees. One alert message is sent with the aggregated changes during the specified interval. Compare this rule with **Request Status Change Rule**, described above.

  For example, the employees' manager might receive a message similar to the following:


From: jsmith@anycompany.com [mailto:jsmith@anycompany.com]
Sent: Wednesday, August 31, 2005 9:31 AM
To: John Smith
Subject: Workforce Optimization Suite Notification
Importance: Low

**time-off**

| | |
|---|---|
| Submitted on | 08/31/2005 9:26 AM |
| Status | pending |
| Employee | Employee, west1 |
| Timeoff type | test |
| choice | 1 |
| Start time | 09/07/2005 12:00 AM |
| End time | 09/10/2005 12:00 AM |
| choice | 2 |
| Start time | 09/21/2005 12:00 AM |
| End time | 09/23/2005 12:00 AM |

**time-off**

| | |
|---|---|
| Submitted on | 08/30/2005 9:26 AM |
| Status | pending |
| Employee | Employee, west2 |
| Timeoff type | test |
| choice | 1 |
| Start time | 09/08/2005 12:00 AM |
| End time | 09/11/2005 12:00 AM |
| choice | 2 |
| Start time | 09/25/2005 12:00 AM |
| End time | 09/27/2005 12:00 AM |



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- **Schedule Change:** An alert is sent when an employee's schedule changes. For example:



Please observe schedule change(s) for the following employee(s):

Eckersley, Dennis

| Old Schedule | | | New Schedule | | |
|---|---|---|---|---|---|
| Eckersley, Dennis | | | | | |
| Friday, January 7, 2005 (GMT-07:00) Arizona | | | | | |
| **Activity** | **Start** | **End** | **Activity** | **Start** | **End** |
| Immediate | 10:00 AM | 12:00 PM | Immediate | 11:00 AM | 1:00 PM |
| Break | 12:00 PM | 12:15 PM | Break | 1:00 PM | 1:15 PM |
| Immediate | 12:15 PM | 6:00 PM | Immediate | 1:15 PM | 7:00 PM |

- **Scheduled Activity Change Reminder:** An alert is sent when an employee's scheduled activity is about to change. For example:

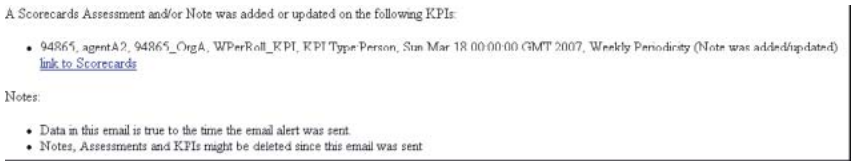


**To:** Netta Landau
**Subject:** ***Schedule change reminder***
**Importance:** Low

**Scheduled activity change reminder for Beardsley, John**
**Activity Name: Blended**
**Activity Description: Blended Desc**
**Time Start: 3:30 PM 05/17/2007 (GMT-08:00) Pacific Time (US & Canada)**

**Scheduled activity change reminder for Gonzalez, Mariana**
**Activity Name: Lunch**
**Activity Description: Time for Lunch!**
**Time Start: 3:30 PM 05/17/2007 (GMT-08:00) Pacific Time (US & Canada)**

- **Scorecards Assessment/Note Added/Updated:** An alert is sent when a new assessment and/or note is added/updated to scorecards of organizations or employees. For example:



A Scorecards Assessment and/or Note was added or updated on the following KPIs:

- 94865, agentA2, 94865_OrgA, WPerRoll_KPI, KPI Type:Person, Sun Mar 18 00:00:00 GMT 2007, Weekly Periodicity (Note was added/updated)
  link to Scorecards

Notes:

- Data in this email is true to the time the email alert was sent.
- Notes, Assessments and KPIs might be deleted since this email was sent.

- **Serialized Auction Notification Rule:** An alert is sent when the next bidder is added to a serialized auction. Serialized auctions are described in the chapter "Managing Time-Off Requests, Shift Swapping, and Shift Bidding" in the *Workforce Management Managers Guide*.

  For example, an agent might receive a message similar to the following:



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**You (qa, agent3) are currently added to the auction 12-26-2005 Auction. The deadline, after which the next bidder will be added, is 01/31/2006 6:17 PM. Please submit your bid before this deadline expires.**

***Note:*** Depending on the employee's privileges and the manager's privileges, the email they receive might contain a link that will open Workforce Management with the relevant request displayed.

If your license includes eLearning, you will also see a number of alerts specifically for eLearning. These include:

- **New Lesson Assigned:** Employees receive an e-mail or pop-up notifying them when new lessons are assigned.

  If eLearning is integrated with Quality Monitoring version 7.8 SP1, this alert rule can also be configured to call attention to customer interactions (contacts) recorded in Quality Monitoring version 7.8 SP1. Contacts on lesson assignment are flagged for evaluation and viewed in Quality Monitoring version 7.8 SP1, and can alert a supervisor to reevaluate an agent's performance after the agent has completed a lesson.

- **Lesson Due Date:** Employees receive an e-mail or pop-up notifying them either that an assigned lesson has a due date within a specified number of days or that the due date has passed. Criteria set when the rule is configured determine whether the notice informs the employee of a due date or a past due date.

- **Lesson Completion:** Employees receive an e-mail notification that lessons have been completed. An administrator can specify whether the e-mail is sent each time a lesson has been completed, or when a specific lesson has been completed.

  If eLearning is integrated with Quality Monitoring version 7.8 SP1, this alert rule can also be configured to call attention to customer interactions (contacts) recorded in Quality Monitoring version 7.8 SP1. Contacts on lesson completion are flagged for evaluation and viewed in Quality Monitoring version 7.8 SP1, and can alert a supervisor to reevaluate an agent's performance after the agent has completed a lesson.

- **Competency Due Date:** Employees receive an e-mail notification that an assigned competency has not been acquired or is below the required rank, and is either due within a specified number of days or is past due.

- **Competency Rank:** Employees receive an e-mail notification that an employee has received a competency rank below the required or the rank specified in the alert rule. This alert rule can be configured so that individual lessons and/or lessons mapped to a specified competency are assigned to employees.



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For more detailed information on the eLearning alerts, refer to the *Competency-based Learning Administration User Guide*.

If your license includes Operations, you will see the following additional alert rule:

- **Actual Statistics Out of Range:** An alert is sent when a selected actual statistic deviates from a range defined in the alert rule.

  The rule has a sentence-like structure as described below:

  **If Actual statistic, <[Is Between | Is Not Between]> <number1> and <number2> Percentage Points over <number3> <time_units1> for Queue(s): queues <[combined | individually]> Send alerts no more than <number4> <time_units2>**

  where:

| | |
|---|---|
| **<statistic>** | Is the statistic you want to compare. Choices are:<br>• **Abandon**<br>• **Average Handling Time**<br>• **Average Speed to Answer**<br>• **Backlog**<br>• **Contact Volume**<br>• **Full Time Equivalents**<br>• **Occupancy**<br>• **Service Level**<br>• **Staffing**<br><br>If your license includes Outbound-Media, you also can choose the following statistics:<br>• **Connect Rate**<br>• **Connects**<br>• **Dials**<br>• **RPC** (Right Party Connects)<br>• **RPC Average Handling Time**<br>• **RPC Rate** |



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| | |
|---|---|
| | If your license includes Operations, you also can choose the following statistic:<br>• **Volume Handled** |
| **<[Is Between \| Is Not Between]>** | Is the mathematical operation you want to use. Choose one of:<br>• **Is Between**<br>• **Is Not Between** |
| **<number1>** | Is the bottom end of the value range you are specifying. |
| **<number2>** | Is the top end of the value range you are specifying. |
| **<number3>** | Is the number of the following time units. |
| **<time_units1>** | Is the time period over which the comparison is to be made. Choices are:<br>• **Minutes**<br>• **Hours**<br>• **Days** |
| **<queues>** | Is the queue(s) you have selected using the drop-down menu. Only those queues associated with the selected campaign are shown. |
| **<[combined \| individually]>** | Determines if the rule applies to the combination of all the selected queues (**combined**), or to each queue individually (**individually**). The default is **combined**. |
| **<number4>** | Is the number of the following time units. |
| **<time_units2>** | Is the time unit at which alerts are to be sent. Choices are:<br>• **Minutes**<br>• **Hours**<br>• **Days** |

***Note:*** The rules above allow you to define deviation alerts for the following actual statistics: Abandons, Average Handling Time,


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Average Speed To Answer, Backlog, Contact Volume, Full Time Equivalents, Occupancy, Service Level, and Staffing.
If your license includes Outbound-Media, you also can choose the following statistics: Connect Rate, Connects, Dials, RPC (Right Party Connects), RPC Rate, and RPC Average Handling Time.

**An example of such an alert is:**

**Under Organization: Arcturus**

**For Queue(s): Q4Staffing - phone,**

**The statistic Staffing has actual value 5 bodies which is not between the predefined value range from 1 to 2**

**in the last 30 minute(s).**

To create a new organization alert rule or change an existing one:

| Step | Action |
|---|---|
| 1 | Select a rule from the drop-down menu and complete any required rule information. This option is available when creating a rule. The rule section is read-only when you are editing an existing rule. |
| 2 | Type the rule name in the **Rule Name** text box. |
| 3 | Select whether it is enabled in the **Enabled** check box. |
| 4 | Provide the Email Action information, click the checkbox at the top of the container, and:<br>• **To whom to send the alert:** Check the applicable checkboxes (**Employees, Direct Supervisors, Additional users by login names (semicolon separated), Additional users by role, Additional E-Mail targets (semicolon separated)**). Type the additional user names, select the desired role, and add the additional e-mail addresses of the additional delivery targets, as applicable.<br>• **What text to include in the subject line:** Check the applicable checkboxes (**Text** (user-provided text), **Employee Names**, **Organization Names**, **Rule Name**). Provide text for the **Text** field if applicable.<br>• **The e-mail delivery template to be used:** Select the e-mail delivery template from the drop-down list (**Low, Standard, High**). |
| 5 | Provide the Pop-up Alert Action information, click the checkbox at the top of the container, and: |



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- **To whom to send the alert:** Check the applicable checkboxes (**Employees, Direct Supervisors, Additional users by login names (semicolon separated), Additional users by role, Additional E-Mail targets (semicolon separated)**). Type the additional user names, select the desired role, and add the additional e-mail addresses of the additional delivery targets, as applicable.
- **What text to include in the subject line:** Check the applicable checkboxes (**Text** (user-provided text), **Employee Names**, **Organization Names**, **Rule Name**). Provide text for the **Text** field if applicable.
- **The pop-up delivery template to be used:** Select the pop-up delivery template from the drop-down list (**Normal, High, Confidential**).

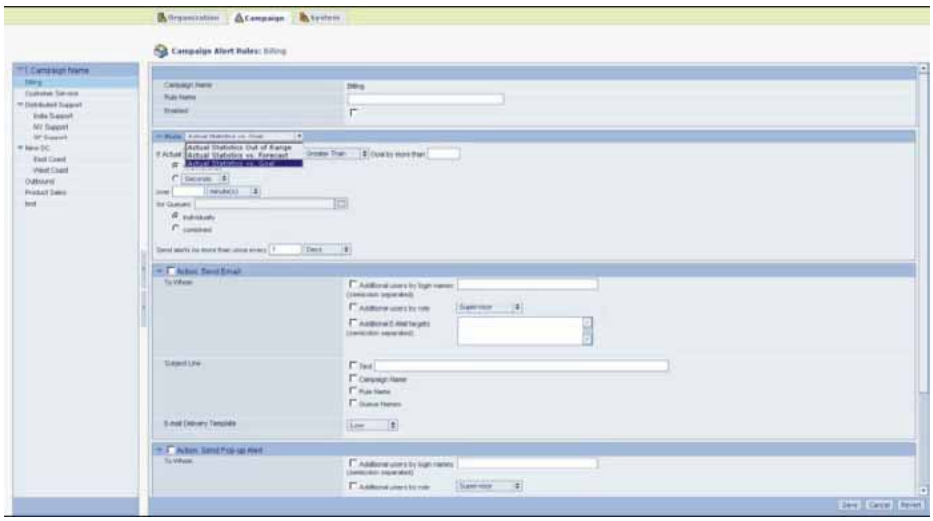
**6** Click **Save**.

**—End—**

***Note:*** When editing an existing alert rule, you cannot change the rule template that was initially selected from the drop-down menu.

## The Campaign Tab

Use the **Campaign** of the web application tab to create, edit, or delete alert rules for your campaigns. (By default, only administrators and schedulers can use this tab.) Campaign alert rules track the deviation of key operational statistics from their forecast, goal, or a specified range of values, and are a valuable management tool in curbing such deviations.





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As shown in the preceding graphic, the following alert rule templates are currently available in Campaign scope:

- **Actual Statistics vs. Goal:** An alert is sent when a selected actual statistic deviates from the goal by a certain percentage.

  The rule has a sentence-like structure as described below:

  **If Actual <statistic>, <operation> Goal by more than <amount> <[% Difference | Percentage Points]> over <number1> <time_units1> for Queue(s): <queues> <[combined | individually]> Send alerts no more than <number2> <time_units2>**

  where:

| | |
|---|---|
| **<statistic>** | Is the statistic you want to compare. Choices are:<br>• **Service Level**<br>• **Average Speed to Answer** |
| **<operation>** | Is the mathematical operation you want to use. Choices are:<br>• **Deviates from**<br>• **Is Greater Than**<br>• **Is Less Than** |
| **<amount>** | Is a number you specify, the quantity of the following units of comparison. |
| **<[% Difference \| Percentage Points]>** | Is the unit of comparison. Choose one of **% Difference** or **Percentage Points**. |
| **<number1>** | Is the number of the following time units. |
| **<time_units1>** | Is the time period over which the comparison is to be made. |
| **<queues>** | Is the queue(s) you have selected using the drop-down menu. Only those queues associated with the selected campaign are shown. |
| **<[combined \| individually]>** | Determines if the rule applies to the combination of all the selected queues (**combined**), or to each queue individually (**individually**). The default is **combined**. |



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| | |
|---|---|
| **<number2>** | Is the number of the following time units. |
| **<time_units2>** | Is the time unit at which alerts are to be sent. Choices are:<br>• **Minutes**<br>• **Hours**<br>• **Days** |

An example of such an alert is:

**Under campaign: Promotion 1 Campaign**
**For Queue(s): QUEUE2,**
**The statistic Service Level (SL)**
**has actual value 65 which is less than the predefined service goal value 70 by 5 percentage points**
**in the last 30 minute(s).**

- **Actual Statistics vs. Forecast:** An alert is sent when a selected actual statistic deviates from the forecast by a certain percentage.

  The rule has a sentence-like structure as described below:

  **If Actual <statistic>, <operation> Forecasted by more than <amount> <[% Difference | Percentage Points]> over <number1> <time_units1> for Queue(s): <queues> <[combined | individually]> Send alerts no more than <number2> <time_units2>**

  where:

| | |
|---|---|
| **<statistic>** | Is the statistic you want to compare. Choices are:<br>• **Abandons**<br>• **Average Handling Time**<br>• **Average Speed to Answer**<br>• **Backlog**<br>• **Contact Volume**<br>• **Occupancy**<br>• **Staffing (Bodies)**<br>• **Staffing (FTEs)**<br>• **Service Level** |


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| | |
|---|---|
| | If your license includes Outbound-Media, you also can choose the following statistics:<br>• **Connects**<br>• **Dials**<br>• **Right Party Connects**<br>• **Right Party Connects AHT** |
| **<operation>** | Is the mathematical operation you want to use. Choices are:<br>• **Deviates from**<br>• **Is Greater Than**<br>• **Is Less Than** |
| **<amount>** | Is a number you specify, the quantity of the following units of comparison. |
| **<[% Difference \| Percentage Points]>** | Is the unit of comparison. Choose one of **% Difference** or **Percentage Points**. |
| **<number1>** | Is the number of the following time units. |
| **<time_units1>** | Is the time period over which the comparison is to be made. Choices are:<br>• **Minutes**<br>• **Hours**<br>• **Days** |
| **<queues>** | Is the queue(s) you have selected using the drop-down menu. Only those queues associated with the selected campaign are shown. |
| **<[combined \| individually]>** | Determines if the rule applies to the combination of all the selected queues (**combined**), or to each queue individually (**individually**). The default is **combined**. |


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| | |
|---|---|
| **<number2>** | Is the number of the following time units. |
| **<time_units2>** | Is the time unit at which alerts are to be sent. Choices are:<br>• **Minutes**<br>• **Hours**<br>• **Days** |

An example of such an alert is:

**Under campaign: Pulsar Campaign**
**with media: Phone**
**For Queue(s):**
**The statistic Average Handling Time (AHT)**
**has actual value 147 which deviates from the predefined forecast value 88 by more than 1 percentage**
**in the last 30 minute(s).**

- **Actual Statistics Out of Range:** An alert is sent when a selected actual statistic deviates from a range defined in the alert rule.

  The rule has a sentence-like structure as described below:

  **If Actual statistic, <[Is Between | Is Not Between]> <number1> and <number2> Percentage Points over <number3> <time_units1> for Queue(s): queues <[combined | individually]> Send alerts no more than <number4> <time_units2>**

  where:

| | |
|---|---|
| **<statistic>** | Is the statistic you want to compare. Choices are:<br>• **Abandons**<br>• **Average Handling Time**<br>• **Average Speed to Answer**<br>• **Backlog**<br>• **Contact Volume**<br>• **Full Time Equivalents**<br>• **Occupancy**<br>• **Service Level**<br>• **Staffing** |



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| | |
|---|---|
| | If your license includes Outbound-Media, you also can choose the following statistics:<br>• **Connects Rate**<br>• **Connects**<br>• **RPC** (Right Party Connects)<br>• **RPC Average Handling Time**<br><br>If your license includes Operations, you might also be able to choose the following statistic, depending on how your system has been configured:<br>• **Volume Handled** |
| **<[Is Between \| Is Not Between]>** | Is the mathematical operation you want to use. Choices are:<br>• **Is Between**<br>• **Is Not Between** |
| **<number1>** | Is the bottom end of the value range you are specifying. |
| **<number2>** | Is the top end of the value range you are specifying. |
| **<number3>** | Is the number of the following time units. |
| **<time_units1>** | Is the time period over which the comparison is to be made. Choices are:<br>• **Minutes**<br>• **Hours**<br>• **Days** |
| **<queues>** | Is the queue(s) you have selected using the drop-down menu. Only those queues associated with the selected campaign are shown. |
| **<[combined \| individually]>** | Determines if the rule applies to the combination of all the selected queues (**combined**), or to each queue individually (**individually**). The default is **combined**. |


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| | |
|---|---|
| **<number4>** | Is the number of the following time units. |
| **<time_units2>** | Is the time unit at which alerts are to be sent. Choices are:<br>• **Minutes**<br>• **Hours**<br>• **Days** |

***Note:*** The rules above allow you to define deviation alerts for the following actual statistics: Abandons, Average Handling Time, Average Speed To Answer, Backlog, Contact Volume, Full Time Equivalents, Occupancy, Service Level, and Staffing.

An example of such an alert is:

**Under campaign: Arcturus**
**For Queue(s): Q4Staffing - phone,**
**The statistic Staffing**
**has actual value 5 bodies which is not between the predefined value range from 1 to 2**
**in the last 30 minute(s).**

To create a new campaign alert rule or change an existing one:

| Step | Action |
|---|---|
| **1** | Select a rule from the drop-down menu and complete any required rule information. This option is available when creating a rule. The rule section is read-only when you are editing an existing rule. |
| **2** | Type the rule name in the **Rule Name** text box. |
| **3** | Select whether it is enabled in the **Enabled** check box. |
| **4** | Provide the **Email Action** information, click the checkbox at the top of the container, and:<br>• **To whom to send the alert:** Check the applicable checkboxes (**Additional users by login names (semicolon separated), Additional users by role, Additional E-Mail targets (semicolon separated)**). Type the additional user names, select the desired role, and add the additional e-mail addresses of the additional targets, as applicable.<br>• **What text to include in the subject line:** Check the applicable checkboxes (**Text** (user-provided text), **Campaign Names**, |



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**Rule Name**, **Queue Names**). Provide text for the **Text** field if applicable.

- **The e-mail delivery template to be used:** Select the e-mail delivery template from the drop-down list (**Low, Standard, High**).

5 Provide the Pop-up Alert Action information, click the checkbox at the top of the container, and:

- **To whom to send the alert:** Check the applicable checkboxes (**Employees, Direct Supervisors, Additional users by login names (semicolon separated), Additional users by role, Additional delivery targets (semicolon separated)**). Type the additional user names, select the desired role, and add the additional user names of the additional delivery targets, as applicable.
- **What text to include in the subject line:** Check the applicable checkboxes (**Text** (user-provided text), **Campaign Names**, **Rule Name**, **Queue Names**). Provide text for the **Text** field if applicable.
- **The pop-up delivery template to be used:** Select the pop-up delivery template from the drop-down list (**Normal, High, Confidential**).

6 Click **Save**.

**—End—**

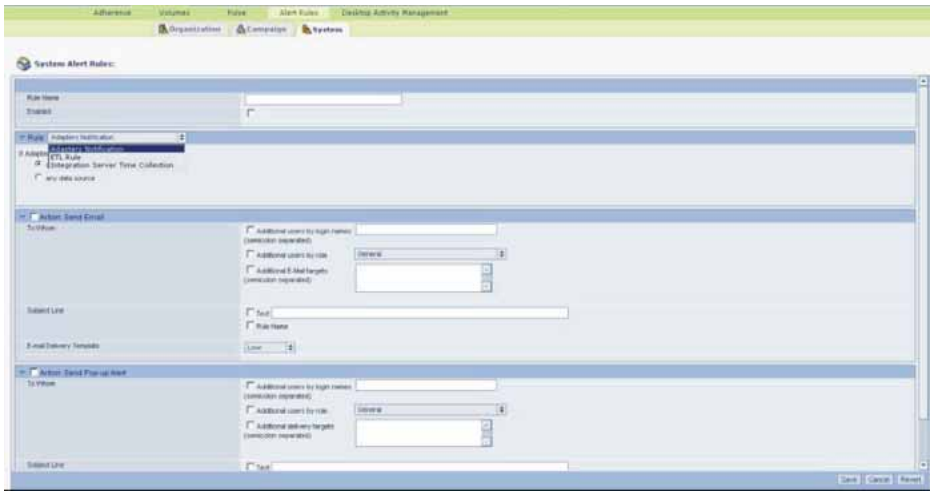
***Note:*** When editing an existing alert rule, you cannot change the rule template that was initially selected from the drop-down menu.

## The System Tab

Use this tab to create, edit, or delete alert rules for your system (typically these alerts would go to the administrator or your IT department). Only administrators and schedulers by default can create or modify system alert rules.



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As shown in the preceding graphic, the following alert rule templates are currently available for the System scope:

- **Adapter Notification:** An alert is sent to a specific user or e-mail address when any of the adapters fails. Adapter alerts take one of two forms:
  - **If Adapter fails for data source Y:** If an adapter fails for data source **Y**, an alert is sent.
  - **If Adapter fails for any data source:** If an adapter fails for any data source, an alert is sent.

  An example of such a notification is:

  **The following adapter(s) reported failure:**

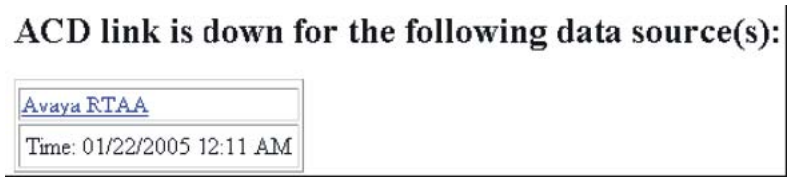
  | Avaya CMS Report prior to 4.1 - DCS[CS6] |
  |---|
  | Time: 01/31/2005 5:44 PM |

- **Integration Server Time Collection:** An alert is sent when an ACD link goes down. Integration Server Time Collection alert rules take one of two forms:
  - **If the link is down for more than X minutes for data source Y:** If the connection to the ACD is down (continuously) for data source **Y** for more than **X** minutes, an alert is sent.
  - **If the link is down for more than X minutes for any data source:** If the connection to the ACD is down (continuously) for any data source for more than **X** minutes, an alert is sent.



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An example of such a notification is:




- **ETL Rule:** An alert is sent about the results for an ETL run (only shown if you are licensed for Desktop Activity Management). There are three types of alerts that can be generated for ETL runs:
  - **ETL starts**
  - **ETL finishes without error**
  - **ETL finishes with error**

To create a new alert rule or change an existing one, follow the procedure listed previously in the section *The Organization Tab*.



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# Managing Volumes

The Operations license for Workforce Management gives you access to functions for controlling workload volume, particularly in the context of the financial services industry. If your license includes Operations, the **Tracking** module displays the following additional section:

- **Volumes**—Allows you to track workload and view employee workload history.

## Volumes

If your license includes the optional Operations features, the **Volumes** section of the **Tracking** module allows you access to the following tabs:

- **Work**—Allows you to track workload of various types as it arrives, is completed, and pending (backlogged) through the day and week.
- **History**—Allows you to view the employee history by Type and VCT Work Queue.

***Note:*** Certain terminology within the Workforce Management web application changes if you are licensed for the Operations features. The following table lists the changes that occur with the Operations features:

| Term | Operations-Equivalent |
|---|---|
| **queue** | **work queue** |
| **contact volume** (or **CV**) | **volume** (or **V**) |
| **average handle time** | **activity handle time** |
| **agent** | **employee** |
| **call** | **volume** |
| **phone** (media) | **immediate** |

### Work

Use the **Work** tab to track workload of various types as it arrives, is completed, and pending (backlogged) through the day and week.



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### Employee Selection

Employees are listed on the left, in the Selection pane. You must select the employees you want to view in this pane.

To view information, click one employee. That employee's information will appear on the right.

Selecting groups of employees (using the **Ctrl** key) is not a valid option from this page. Only one employee's information at a time can be displayed in this window.

Type a name in the **Find** box and click **Go** to locate a specific employee.

### Filters

You can filter the Selection pane by selecting a filter from the **View** menu at the top of the pane. Select **Create Filter** or **Edit Filter** to create a new filter or change an existing one.

### Work Page Pane

Use this pane to view a summary of the work entered for selected employees. Managers can:

- Enter the amount of work "checked out" from a work queue and "checked in" when completed
- Enter and track new work that arrives
- View the status of each work queue's inventory on an intra-day and/or intra-week basis
- Set the inventory of a work queue to an absolute number at any given time, provided inventory associated with subsequent VCT Events do not fall below zero

There are 5 types of VCT events for which work can be entered; the work queue profile determines which events are applicable for that given activity.

- **Arrivals**—Team managers have the ability to add arrivals to work queues, which increases their inventories by the arrivals number. The arrivals get transformed into volumes through an Integration Server adapter.
- **Inventory**—Provides the user a net total of outstanding work (backlog) for each work queue of the organization at which the manager is working. **Set Inventory** sets inventory to an absolute value at current time or selected datetime in the past provided subsequent VCT events do not present a negative inventory.
- **Check-Out**—Identifies a quantity of inventory as being worked on by a particular team member. Checking work out for a work queue or



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sub-work queue decreases the inventory level of that work queue or sub-work queue by that value and increases **Work in Progress (WIP)** by that value. Work can be checked out through the **Work** tab in the **My Volumes** section of the **My Home** module, which is accessible to agents, managers, and administrators.

- **Check-In**—Work that is tied to a work queue or sub-work queue that has been checked out can be checked back in. This process removes the amount from the **Work in Progress (WIP)** tally for that queue or sub-work queue by the value of the **Check-In**. Work can be checked in through the **Work** tab in the **My Volumes** section of the **My Home** module, which is accessible to agents, managers, and administrators.
- **Work-In-Progress (WIP)**—Provides users a net total of their work. (**Check-Out** increases WIP; **Check-In** decreases WIP.)

The default view of this tab allows new work to be entered for the current date and time. You can click the **Selected time** radio button to display a date and time selector so work can be checked out or checked in, or arrivals added for a work queue at a particular date and time in the past.

## History

Use the **History** tab to view the employee history by Type and VCT Work Queue.

### Employee Selection

Employees are listed on the left in the Selection pane. You must select the employees you want to view in this pane.

To view information, click one employee ; the employee's information will appear on the right.

Selecting groups of employees (using the **Ctrl** key) is not a valid option from this page. Only one employee's information at a time can be displayed in this window.

Type a name in the **Find** box and click **Go** to locate a specific employee.

### Filters

You can filter the Selection pane by selecting a filter from the View menu at the top of the pane. Select Create Filter or Edit Filter to create a new filter or change an existing one.



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### History Page Pane

Use this pane to view a history of the work entered and completed for selected employees. Managers can:

- View history by event type, or can select [**All Events**] to view the history for all events
- Select the work queue to view or select [**All Work Queues**] to view all work queues
- View the corresponding time that an entry occurred
- Sort any of the columns
- Edit the value of any unmanaged VCT Event except **Set Inventory** as long as it does not cause inventory of that work queue at subsequent times to fall below zero
- Edit the **Time** field of any VCT Event except **Set Inventory** provided that the inventory of subsequent VCT Events do not fall below zero

Additionally, the **Managed** column for a row indicates that the Operations Arrival Processing adapter has been run for that instance, and, if the event is an arrival, that it has been converted into a volume for that work queue. For that reason, a managed row is not editable.

Managers can monitor the VCT history throughout the day for any activity for any team for which they have read permissions.

## Work Queues

This section of the **App Admin** module is only visible if you are licensed for Financial Services Operations. It allows you to view and manage your volume work queues and arrival patterns, and contains the following tabs:

- **Work Queue Configuration**
- **Arrival Patterns**

### Work Queue Configuration

Use the **Work Queue Configuration** tab to define a normal work queue as a VCT Work Queue and link it to an organization. A VCT Work Queue not only has volumes associated with it, but also captures employee level productivity data at a finer intraday granularity. This work queue is then available for agents, managers, and supervisors to enter VCT data or productivity tracking data either through the **Work** and **History** tabs of **My Volumes** section of the **My Home** module, or **Volumes** section of the **Tracking** module, or through the Operations – Event File Import and Transform adapter.



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There are three types of patterning supported:

- Operational Hours—Arrivals for each day are distributed evenly over the organization's hours of operation.
- Named Patterns—Arrivals for each day are distributed based on definitions you provide.
- No Pattern—Arrivals are converted to volumes as is, at the times they actually occur, without any spread. This pattern can be used if you want volumes to follow the true arrival pattern, and if arrivals are frequent during the organizational hours.

### Work Queue Name

Work queues are listed in the Selection pane on the left. You must select the work queue you want to view in this pane.

To view information, click one work queue to highlight it. Only individual work queues can be selected to view the corresponding information in the data pane. Groups of work queues cannot be selected.

### Work Queue Configuration

This pane is used to specify the parameters for a VCT work queue. There are three types of VCT work queues:

1. **Work Completed, WIP and Inventory:** This work queue type has all the VCT Event types of **CHECKIN**, **CHECKOUT** and **ARRIVAL** enabled.
2. **Work Completed and Inventory:** This work queue type has only **ARRIVAL** and **CHECKIN** events enabled; a **CHECKOUT** event of equivalent value is automatically generated for each **CHECKIN** event, so there is no **WIP**, only **Work Completed**.
3. **Work Completed:** This work queue type has only the **CHECKIN** event enabled, which in turn generates an **ARRIVAL** and a **CHECKOUT** of equivalent values.

The parameters you can specify are:

- **As of:** Use this date selector to view and/or set the Activity Handling Time for a specific date.
- **Use Volume Capture:** Select this option to specify the work queue as a VCT work queue
- **Type:** Select the work queue type:
  - **Work Completed, WIP, and Inventory**
  - **Work Completed and Inventory**
  - **Work Completed**



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- **Organization:** Select the organization. ( Only employees belonging to this organization and its child organizations will have access to the work queue.)
- **Activity Handling Time (in seconds):** Enter the activity handling time (in seconds) for the work queue. Click the pencil icon to the right of the field to enter effectivity dates for the Activity Handling Time.

  The top portion of the pop-up window shows the history of effective dates that have been applied to the selected work queue.

  The lower part allows you to specify a new Activity Handling Time, and gives you the following options for setting dates:

  1. **Update value for current period:** This selection is the default, and replaces the displayed value for whichever time period it is currently saved. If you always save using this option, it has the same effect as having no effective dates and always resetting the current value. If you are using effective dates, this option updates the AHT for the current applicable period, which will not result in any new mediation in start date or end date.

     ***Note:*** Editing the AHT value on the Work Queue Configuration page has the same effect as using the Effectivity Pop-Up window with the **Update value for current period** option.

  2. **Insert value for period from:** Allows you to set the new value from the beginning of the period being viewed into the future to a specified date. If you are using effective dates, a new interval is created. For example, if you have previously set AHT to 10 between 1-1-2006 through no specified end date (that is, forever), and now use this option to set AHT to 20 from 3-1-2008 to 4-1-2008, the end result is similar to the following:

     **1-1-2006 - 3-1-2008: 10**
     **3-2-2008 - 4-1-2008: 20**
     **4-2-2008 - forever: 10**

  3. **Insert value from:** Allows you to set the new value from the beginning of the viewed period into the future, with no specified end date. If you are using effective dates, a new interval is created or deleted. For example, if you have set AHT to 10 from 1-1-2006 through no specified end date, and now use this option to set AHT to 20 from 3-1-2008 to no specified end date, the end result is:

     **1-1-2006 - 3-1-2008: 10**
     **3-2-2008 - forever: 20**

- **Arrivals Pattern:** Select the Arrival Pattern; the Operations – Arrival Processing adapter uses this pattern to convert the sum total of arrivals into volumes for every 15-minute bucket over the pattern window.



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- **Multi Selection:** Selecting the **Add** option allows for creating single and/or multi-selection VCT chains. A VCT chain links a source work queue to one or more target work queues by a source VCT Event and a target VCT Event, and by a certain proportion. It represents the flow of work from one VCT work queue to another based on a set of VCT Event trigger rules.

## Arrival Patterns

Use the **Arrival Patterns** tab to view and edit the patterns that have been created. The Operations – Arrival Processing adapter can be configured to use an arrival pattern defined here to convert **ARRIVAL** VCT Events into volumes by applying the arrival pattern to the sum of **ARRIVALS** over a defined window. The purpose of the arrival pattern is to be a close representation of the distribution of intraday work to be done.

From this tab, the following options are available from the options displayed in the lower right of the pane:

- **Import**— Click this option to import a new pattern.
- **Create**—Click this option to manually create a new pattern.
- **Edit**—Select an existing pattern and click this option to change the pattern's settings.
- **Delete**—Select an existing pattern and click this option to delete the pattern.

### Importing Arrival Patterns

Clicking the **Import** button opens a page that allows you to import a pattern created from information contained in an external source file. The fields in the source file can be delimited either by **Tab** characters or commas.

The page contains two areas:

**File Setup** Use the fields in this section to specify the following:

| Field | Description |
|---|---|
| **File to Import** | The path and name of the external file to be imported. |
| **Name** | The name assigned to the pattern. |
| **Alignment Date** | The date the pattern was created. |
| **Duration (in days)** | The number of days for which the pattern applies. |
| **Delimiter** | Use the drop-down menu to select either **Tab** or **Comma** as the field delimiter used in the file. |

**Field Name and Column Number** Use the Field Name checkboxes and Column Number fields to specify the fields to be imported, as follows:



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| Checkbox or Field | Description |
|---|---|
| **Date** | Used to identify the column in the external file that contains the date. |
| **Time** | Used to identify the column in the external file that contains the time. |
| **Weight** | Specifies the percentage allocation for each 15-minute interval. |
| **Column Number** | Specifies the order (1, 2, 3, etc.) in the external file of the date, time, or weight column. |

## Creating or Editing Arrival Patterns

The following fields can be edited:

| Field | Description |
|---|---|
| **Name** | A pattern name that you assign. |
| **Description** | A description of the pattern. This field is optional and provided for your convenience. |
| **Alignment Date** | The date the pattern was created. |
| **Duration (in days)** | The number of days for which the pattern applies. |
| **Delimiter** | Use the drop-down menu to select either **Tab** or **Comma** as the field delimiter used in the file. |
| **Daily Pattern** | The quarter-hour distribution percentage of the pattern. |



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# Managing Dashboards

This separately-licensed feature allows you as administrator to configure dashboards, a convenient way to display timely information in the form of graphic reports. Dashboards can typically be viewed by managers, schedulers, supervisors, and administrators.

## Viewing Dashboards

The most typical way to view dashboards is in the **My Dashboards** section of the **My Home** module.

This page allows you to view those dashboards that have been configured by your system administrator and for which you have view privileges.

A dashboard can show up to three columns, each containing one or more graphic tables.

The drop-down selector at the top right of the page allows you to select which dashboard you want to see.

Up to three mode buttons can appear to the right of each graph:

- View Mode

  The default mode, which is viewing the graph.

- Edit Mode

  Allows you to set or change the run-time parameters for a particular graph.

- Configure Mode

  Typically this mode button is only shown for administrators and those with privileges to edit dashboards.

If you have changed the run-time parameters for the graphs on a dashboard, you can save those changes to a new dashboard, provided that your administrator has enabled this functionality. To save a new dashboard, click **Save As...** at the bottom right of the page. Click **Delete** to delete the dashboard being displayed. Click **Reset** to cancel any unsaved changes and revert to the settings in use before you changed anything.



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# Configuring and Editing Dashboards

Dashboard administration takes place on the **Administration** tab of the **Dashboards** section of the **App Admin** module. This section allows you to view a list of the dashboards that have been created for an organization.

Select the organization in the **Organization Name** column at the left of the page.

Any dashboards that have been created for that organization are shown in a tabular format on the right-hand side of the page. The columns shown for each dashboard are:

- **Dashboards:** The name given to the dashboard by the person who created or edited it last.
- **Dashboard Description:** An optional description of the dashboard, entered by the person who created or edited the dashboard last.
- **Assigned Roles:** The roles that have permission to view this particular dashboard.
- **Owner:** The organization (or parent organization, in the case of child organizations) for which this dashboard was created.

Buttons at the lower left of the page allow you to create new dashboards, edit existing dashboards, or delete existing dashboards. See "Configuring Dashboard Portlets" (page 209) for more information.

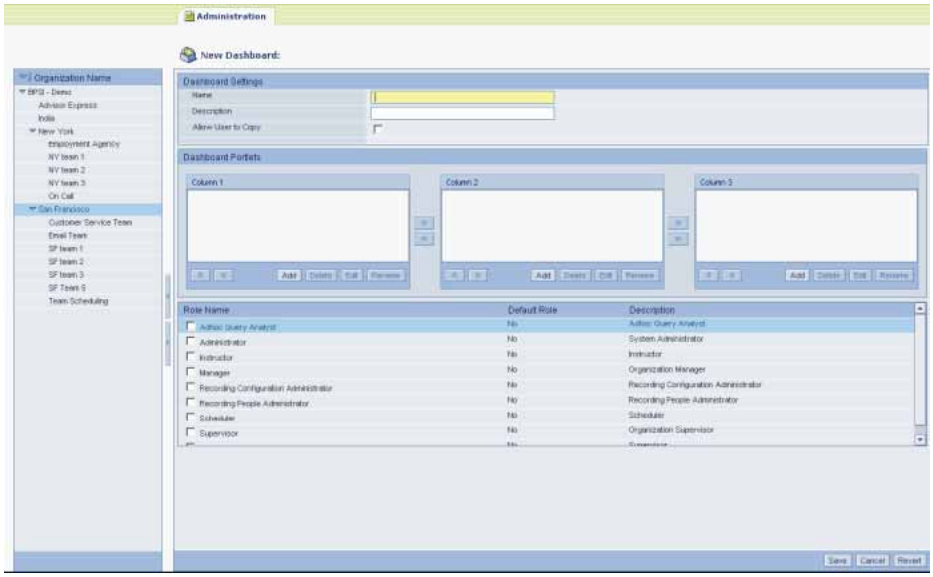
## Creating or Editing a Dashboard

When you click the **Create** or **Edit** button, the window refreshes to display the configuration settings for a dashboard.

The page consists of three containers, as shown in the following graphic of the page for creating a new dashboard:



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The containers are:

- **Dashboard Settings**

  This container allows you to name (or rename) a dashboard, and assign a description to it or edit the existing description. In addition, you can use the **Allow User to Copy** checkbox to enable users to make copies of this dashboard.

- **Dashboard Portlets**

  A dashboard can contain from one to three columns on the page. The column is referred to as a portlet. Each portlet can display one or more different reports in graphic format.

- **Role Name**

  This container allows you to specify those roles that should have access to this particular dashboard.

Click **Save** to save your changes, **Cancel** to cancel your changes, or **Revert** to cancel any unsaved changes.

## Configuring Dashboard Portlets

Each dashboard consists of one to three columns, with each column containing one or more portlets.

When you click **Add** in one of the columns, or select an entry in a column in the **Dashboard Portlets** container and click **Edit**, a pop-up window is displayed, allowing you to configure the portlets displayed on the dashboard.



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The type of portlet is controlled by the drop-down selector at the top right of the page, and include:

- **Custom Report**

  ***Note:*** If no Custom Reports exist for your site, you will see the message **There are no custom reports** at the top center of the page.

- **Daily Service Goals and Backlog**
- **Multiday Group Schedule**
- **Single KPI Trend**
- **Single KPI Trend Vs. Peer**
- **Staffing Number Assessment by Interval**
- **Team Aggregate Mini Scorecard**
- **Team Aggregate Multi KPI**
- **Team Detail Dual KPI**
- **Team Detail Single KPI**
- **Web (Admin Configures Location)** (Allows you to specify the title and URL of a portlet.)

Except for the first and last items above, the items are based on some of the reports that are standard with Workforce Management. (See the *Workforce Management Reports Guide* for information on the specific reports.)

To create or edit a portlet:

| Step | Action |
|---|---|
| **1** | Select a report; the window refreshes to show the settable parameters for that report. |
| **2** | Set the parameters as desired. |
| **3** | Use the checkboxes under **User Preference** to control whether roles to whom you've granted access to the dashboard can change the run-time parameters, as described in "Viewing Dashboards" (page 207).<br><br>If you check a parameter's **User Preference** checkbox, the end user must always go to the edit screen to provide a value; any value that you set in the **Value** column for that parameter is discarded. The **Value** column for that parameter changes to display the text **Provided By User**. |



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4 Specify in the bottom container of the page whether the report being shown in the portlet should be run at a specified time and interval, or if it should only be run on demand.

5 Click **Save** to add a new portlet to the dashboard column or to save the changes you made to an existing portlet.

**—End—**



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# Administering Reports

This chapter covers the following topics related to report administration:


- "Access Rights to Reports" (page 213)
- "Deploying Custom Reports" (page 213)
- "Enabling Users to Use Adhoc Reports" (page 215)
- "Report Dump" (page 215)


It does not cover how to run and view reports, nor does it cover report content. Refer to the separate document, the *Workforce Management Reports Guide*, for that information.

## Access Rights to Reports

Access to each report can be restricted to one or more roles (see *Working with Roles and Privileges*).

To set the access rights for a report:

| Step | Action |
|---|---|
| **1** | In the **Reports** module, click the **Access Rights** section. |
| **2** | In the left pane, highlight the report you want to set access rights for. |
| **3** | In the right pane, check the roles you want to have access to the selected report. |
| **4** | Click **Save**. Viewing the report is restricted to employees assigned the selected role(s). |

**—End—**

## Deploying Custom Reports

Click the **Deployment** section of the **Reports** module to access a page that allows you to deploy or undeploy custom reports.



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The left side of this page consists of a report topics (directory) list and any deployed custom reports.

The right side of this page consists of form fields for deploying a new custom report. The form consists of:

- **Report Topic**—a field automatically filled in when you select a report topic on the left side of the page.
- **Report Filename**—a field for entering the filename of the Cognos report, which has an xml extension.
- **Report Prompt Filename**—a field for entering the filename for the Report Parameter definition file, also an xml file.
- **Report Locale Filename**—a field for entering the filename of the localization properties of the report. This property file contains key/value pairs of the locale as well as the localized report name.

To deploy a custom report:

| Step | Action |
|---|---|
| **1** | Select a topic on the left side of this page, the topic under which the custom report is to be viewed. |
| **2** | Use the **Browse** button to select the Cognos report. |
| **3** | Use the **Browse** button to select the Report Parameter file. |
| **4** | Use the **Browse** button to select the localization properties file of the report. |
| **5** | Click **Deploy**.<br>The custom report shows up on the left side of this page, under the selected topic. |
| **6** | Assign appropriate access rights to the report, as described in "Access Rights to Reports" (page 213). |

**—End—**

To undeploy a custom report:

| Step | Action |
|---|---|
| **1** | Select on the left side of the page the custom report you want to undeploy. |
| **2** | Click **Undeploy**. |



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**—End—**

## Enabling Users to Use Adhoc Reports

Adhoc reports normally can only be modified, run, and viewed through the Cognos ReportNet Query Studio. The number of licenses to use the Cognos ReportNet Query Studio are extremely limited for most organizations.

At your option, users can be enabled, however, to run and view such reports without having access to the Cognos ReportNet Query Studio.

Two privileges are involved:

- **Access Ad Hoc Query**—The role can launch the Cognos Query Studio using the **Ad Hoc Reports** section of the **Reports** module. The role can then create, modify, view, and delete ad hoc reports.
- **View Ad Hoc Query**—The role can execute and view ad hoc reports created through the Cognos Query Studio, without having access to the Cognos Query Studio, using the **Ad Hoc Reports** section of the **Reports** module.

Because these privileges are assigned at the role level, we recommend that you create a role specifically for those users to whom you want to allow access to adhoc reports without access to the Cognos Query Studo.

## Report Dump

The Report Dump package is installed by default. It has two main functions for Workforce Management:

1. It converts Planned and Actual Event data to a timeline so the data can be queried more easily by report writers. (Writing queries on hierarchical events is possible but very difficult and time-consuming.)
2. It computes the adherence timeline. The adherence timeline calculation is complex and cannot be performed within a query.

By default, the Report Dump package retrieves data for the last 30 days. This setting can be modified; refer to the description of **Max Data-Refresh Lookback** in "Reports" (page 250).

### Tables Used by Report Dump

As it runs, the Report Dump package populates the following five tables within Workforce Management:

- **ORGANIZATIONDAY**—Used to do timezone conversion within the query. This table is only populated the first time Report Dump is called.
- **PLANNEDEVENTTIMELINE**



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- **ACTUALEVENTTIMELINE**
- **ADHERENCEEXCEPTION**
- **TIMEZONE**

### Reports Dependent on Report Dump

Currently there are a number of reports that rely on Report Dump data.

The following reports rely on Report Dump having been run at least once to populate the **TIMEZONE** table:

- **User Roles**
- **Employee Info**

The reports listed below require Report Dump to be run after any change to employees' organization assignments, to populate the **ORGANIZATIONDAY** table, or, for time entries, schedule import, activity tolerance, or activity mapping, to populate the **ACTUALEVENTTIMELINE**, **PLANNEDEVENTTIMELINE**, and **ADHERENCEEXCEPTION** tables:

- **Adherence Minutes**
- **Adherence Summary**
- **Adherence Numbers By Interval**
- **Adherence Exceptions**
- all Time-Off reports

**Adherence Minutes** and **Adherence Summary** compute daily aggregations on an employee's workday. You supply a date range (local date), and these reports return daily aggregations for all workdays that begin within the specified time range, based on the organizations' day boundaries.

All the Time-Off reports depend on the **ORGANIZATIONDAY** table which, as mentioned above, is only populated the first time Report Dump is called. In addition, the following Time-Off reports are dependent on the regularly updated data from Report Dump:

- **Time Off Allocations by Time**
- **Absence Hours and Absence Shrinkage for Employee by Time**
- **Absence Hours and Absence Shrinkage for Employee Filter by Employee**
- **Absence Hours and Absence Shrinkage for Employee Filter by Organization**
- **Absence Hours and Absence Shrinkage for Employee Filter by Time**



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All of the Staffing reports depend on Report Dump to populate one or all of the following tables:

- **ORGANIZATIONDAY**
- **PLANNEDEVENTTIMELINE**
- **TIMEZONEAM**

The reports listed below require Report Dump to be run after any change to employees organization assignment, to populate the **ORGANIZATIONDAY** table, or time entries to populate the **ACTUALEVENTTIMELINE** table:

- **Daily Time Record Summary**
- **Detailed Time Record**
- **Employee Activity Summary**
- **Organization Activity Summary**
- **Daily Activity Summary**
- **Employee Activity Roll Up**
- **Activity Roll Up**
- **Activity Cost**

***Note:*** All reports with an employee filter selector run a subset of Report Dump automatically every time a report is run to populate the **EMPLOYEEFILTEREMPLOYEE** table.

The default setting for the Report Dump Timer in Verint Integration Server is to do a report dump daily at 3 a.m., as a compromise between performance and how up to date the data is (see the description of **Max Data-refresh Lookback** in "Reports" (page 250)). Running Report Dump is very CPU-intensive and increases network traffic. To avoid degrading the performance of the rest of the system, we advise you schedule Report Dump to run only at night, during non-peak hours.

As a result, be aware that regularly scheduled reports that rely on Report Dump are run on the previous day's data.

## Real-Time Reporting for Adherence

To accommodate customers who want real-time reporting, you can select the **Use Live Data for Adherence Reports** option from the **General** side-bar element of the **Administration** section of the **System** module (see "Reports" (page 250)) and run one of the previously listed adherence reports, Report Dump is called to obtain data for the specified interval for the selected organizations. This makes running a real-time report much less CPU-intensive than running a full report dump before running the



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report. However, real-time reports are still a considerable load on system resources, and extensive use of this feature could degrade the performance of the rest of the system.



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# Using the System Module

The **System** module of Workforce Management contains the following sections and tabs that have not been previously discussed:

- **Data Sources**—Set up and configure non-Scorecards data sources, including Quality Monitoring data sources:
  - **Settings**—Create and edit data sources and configure them. See "Settings" (page 221).
  - **Data Source Groups**—Create, edit, and delete groups for your data sources. See "Data Source Groups" (page 229).
  - **Skill Mapping**—Map skills to queues for use with outsourcing. See "Skill Mapping" (page 231).
  - **Transformation Operations**—Only shown with an Operations license. Allows you to specify how operations data, which can be imported in many different forms, should be transformed during the import process into a form that can be used in Workforce Management. See "Transformation Operations" (page 232).
- **Integration**—Display and manage your system Integration Servers' status, including adapters. See "Integration" (page 237).
- **Scorecards Sources**—Allows you to configure data sources for use with Scorecards. This section and its associated tabs are not discussed in this guide; see the *Scorecards Administration Guide* for information on this section of the **System** module.
- **Log**—Set up and view the system log to determine system status and errors. See "Using the Log Tab" (page 243).
  - **Log Viewer**—Displays the current system log. See "Log Viewer" (page 243).
  - **Log Manager**—Allows you to select among different system log configurations. See "Log Manager" (page 244).
- **Administration**—Allows you to configure system-wide parameters, review your license data and version and schema information, and



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configure alerts in Workforce Management. It contains the following tabs:

— **General**—Allows you to configure system-wide parameters. See "General" (page 245).

— **Audit Viewer**—Allows you to review changes to such entities as schedule, employee attributes, organizational set-up, administrative set-up, role changes, permission changes, modifications to the forecast, and publishing history. See "Viewing an Audit Trail" (page 262).

— **Version**—Displays your version and schema information. See "The Version Section" (page 265).

— **Alerts Setup**—Allows you to configure parameters for alerts in Workforce Management. It consists of the following tabs:

– **General Settings**—Configures parameters for the Alerts subsystem in Workforce Management. See "General Settings" (page 265).

– **Mail Settings**—Sets e-mail configuration parameters for the Alerts subsystem. See "Mail Settings" (page 266).

– **Pop-up Settings**—Sets e-mail configuration parameters for the Alerts subsystem. See "Pop-up Settings" (page 266).

Each of the sections and its associated tabs are discussed separately in this chapter. Two other sections not discussed in this guide may also be visible:

- Installations
- Alarms

These sections are components of both Operational and Advanced TDM Compliance Recording, and are part of the Workforce Optimization Solution. The sections are used to configure and manage Enterprise Management sites and recorders.

For information on using these sections, please refer to the *System Administration Guide* for the appropriate release of TDM Recorder.

## Data Sources

The **Data Sources** section lets you create, view, and delete data sources that will be used throughout the Workforce Management, assign external names to them, and map the Workforce Management's activities with the data source's reason codes. Data sources are created and edited within Integration Server.)



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***Note:*** The tabs shown in the Data Sources section vary depending on the type of data source. This chapter documents those used most frequently with Workforce Management.

## Settings

Use this tab to view, create, and delete data sources that are used throughout the Workforce Management, and edit their external names.

***Note:*** This page expands. See "Expanding Pages" (page 38).

If you are licensed for Recorder Manager or Enterprise Manager, entering this information allows your CTI server to be recognized by the data source and thereafter be configured by Recorder Manager or Enterprise Manager. (Previously, the Data Source/CTI server connection was configured by a third party application).

You can also export and import configurations for Phone or LAN data sources to an external file that can be imported into another system. Exported data includes Extensions, Associations, and Groups (for a Phone data source), and Workstations, Groups, and Workstation Associations (for a LAN data source). Imported data includes Extensions, Associations, and Groups (for a Phone data source), and Workstations, Groups, and Workstation Associations (for a LAN data source). These features allow you to reuse settings from previous versions or from other sources.

### Creating Data Sources

The method you use to create or edit a data source depends on the data source type:

- **Dialer** (A Dialer data source is associated with another primary Phone data Source to allow predictive dialing of phone numbers automatically, depending on the availability of agents and the response from called party numbers. Dialer switches thus increase the amount of time an agent spends communicating instead of waiting.)
- **Email**
- **LAN**
- **Operations** (only if you are licensed for Operations)
- **Outsourcer**
- **Payroll Provider**
- **Phone**
- **Quality** (only if you are licensed for Quality Monitoring)



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- **Trader** (A secondary data source to a Phone switch, to supplement call recording in a financial trading environment. Export and import of Trader data is supported.)

### Creating Dialer Data Sources

| Step | Action |
|---|---|
| 1 | Click the **Create Data Source** button and select the **Dialer** data source type from the pop-up menu. |
| 2 | Type a data source name and a short description. |
| 3 | Select the dialer type from the drop-down menu. |
| 4 | Select the phone data source from the drop-down menu. |
| 5 | Click **Save**. The new data source is listed. |

**—End—**

### Creating Email or Payroll Provider Data Sources

| Step | Action |
|---|---|
| 1 | Click **Create Data Source** at the bottom of the page. |
| 2 | From the pop-up data source type selector, click either **Payroll Provider** or **Email**. |
| 3 | Type a data source name and a short description. |
| 4 | Type an external name. This name is the name of the ACD as retrieved by the ACD vendor. Leave this field blank if you do not intend to support more than one ACD on the same time collection (STCI) feed.<br><br>***Note:*** For **Payroll Provider** data sources, skip now to Step 8. |
| 5 | If your center is using queue-hopping, and this data source is a "child" data source of another data source (such subordinate data sources can be used to allow agents to be assigned separate ACD IDs per queue-hopping activity), select the parent data source from the drop-down list.<br><br>***Note:*** Child data sources are indented relative to their parents in the left column. Parent data sources are shown expanded by default, and can be collapsed by clicking the down facing arrow |



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icon to the left of the data source's name, and re-expanded by clicking the right facing arrow icon.

6 Select the time zone for the data source from the drop-down list.

7 Select **Use ACD Staffing** if you want to use the staffing statistics reported by the ACD. Uncheck this box if you want to calculate the staffing from the time records.

8 Click **Save**. The new data source is listed.

**—End—**

### Creating LAN Data Sources

| Step | Action |
|---|---|
| 1 | Click **Create Data Source** at the bottom of the page. |
| 2 | From the pop-up data source type selector, click **LAN**. |
| 3 | Type a data source name and a short description. |
| 4 | Click **Save**. The new data source is listed. |

**—End—**

**Creating Operations Data Sources** If you are licensed for the Operations features, an Operations data source is one of the possible data sources you can create.

To create such a data source:

| Step | Action |
|---|---|
| 1 | Click **Create Data Source** at the bottom of the page. |
| 2 | From the pop-up data source type selector, click **Operations**. |
| 3 | Type a data source name (used in the Workforce Management) and a short description. |
| 4 | Select a time zone for the data source from the drop-down menu. |
| 5 | Click **Save**. The new data source is listed. |
| 6 | If required, click the **Data Source Groups** tab and create data source groups for the **Operations** data source. |



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| | |
|---|---|
| 7 | Click the **Transformation Operations** tab.<br><br>Operations data can be imported in many forms. These forms need to be transformed during the import process into a form that can be used in Workforce Management. See the help page for the **Transformation Operations** tab for more information. |

**—End—**

### Creating OutSourcer Data Sources

| Step | Action |
|---|---|
| 1 | Click **Create Data Source** at the bottom of the page. |
| 2 | From the pop-up data source type selector, click **OutSourcer**. |
| 3 | Type a data source name (used in the Workforce Optimization Solution) and a short description. |
| 4 | Type an external name. This name is the name of the ACD as retrieved by the ACD vendor.<br><br>To edit a data source, click the data source in the left pane to select it and modify its settings as appropriate. Once you have finished editing the data source settings, click **Save**. |

**—End—**

***Note:*** The data source's type cannot be changed once the data source has been created.

### Creating Phone Data Sources

| Step | Action |
|---|---|
| 1 | Click **Create Data Source** at the bottom of the page. |
| 2 | From the pop-up data source type selector, click **Phone**. |
| 3 | Type a data source name and a short description. |
| 4 | If you are licensed for Desktop Monitoring, use the **Adherence Time Line** drop-down menu to specify the Adherence line to which the ACD activities should be reported |
| 5 | Select the relevant Phone switch from the drop-down menu. |



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6 Type an external name. This name is the name of the Phone switch as retrieved by the Phone switch vendor. Leave this field blank if you do not intend to support more than one Phone switch on the same time collection (STCI) feed.

7 If your center is using queue-hopping, and this data source is a "child" data source of another data source (such subordinate data sources can be used to allow agents to be assigned separate ACD IDs per queue-hopping activity), select the parent data source from the drop-down list.

8 Select the time zone for the data source from the drop-down list.

9 If you have Workforce Management, select **Use ACD Staffing** if you want to use the staffing statistics reported by the ACD. Uncheck this box if you want to calculate the staffing from the time records. (Please refer to the Internal – Staffing Calculator adapter's Help page for more information).

10 If Full-time Recording is also used in your company, specify both the Contacts Viewer server name and port for the Phone data source involved. This enables drill-through from Scorecards to the Search and Replay feature for interactions.

11 Check **Fixed Seating** to specify that you have a fixed seating license, not a free seating license.

12 Optionally enter the number of seconds to continue recording a contact after a call ends, so that the follow-up work performed by the agent can be recorded.

13 Click **Save**. The new data source is listed.

**—End—**

**Creating Quality Data Sources** If you are licensed for Quality Monitoring:

| Step | Action |
|---|---|
| 1 | Click **Create Data Source** at the bottom of the page and click the **Quality** data source. |
| 2 | Type a data source name (used in the Workforce Optimization Solution), a short description, and the data source's external name (used to identify the data source ). |
| 3 | Enter the Quality command server and port number. |



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4 Enter the Quality Monitoring server name (or IP address).

5 Enter the Quality Monitoring LMPS port number.

6 Enter the Connect Adapter Port.

7 Enter the Quality Monitoring Web Server name (or IP address).

8 Enter the Quality Monitoring Web Server port number (defaults to 8285).

9 Click **Save**. The new data source is listed.

**—End—**

***Note:*** This data source must be associated with the relevant users. This association is done on the **Profiles** tab of the **People** module. See "Viewing Employee Information" (page 91) for additional information.

### Creating Trader Data Sources

| Step | Action |
|---|---|
| 1 | Click the **Create Data Source** button and select the **Trader** data source type. |
| 2 | Type a data source name. This is a required field. Only alphanumeric characters (no quotation marks and no back or forward slashes) are supported in the data source name. |
| 3 | Type a short description. |
| 4 | Click **Save**. The new Trader data source is listed. |

**—End—**

## Exporting Data Source Configurations

To export data source configurations:

| Step | Action |
|---|---|
| 1 | Select the data source to be exported.<br>The work pane refreshes to display the selected data source. |
| 2 | Click **Export**. The **Windows File Download** dialog box displays. |



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3 Click **Save** to save the selected data source configuration to a file you specify.

4 Accept the suggested file name, such as **datasource-export.csv** or type a different, more unique name.

5 Click **Save**. Settings for the selected data source are saved to the Export File Location according to the following table:

| Data Source Type | Settings Exported |
|---|---|
| **Phone** | Extensions, Member Groups, Associations of extensions for Station-side Extension Pools, IP Extension Pools, Trunk Extensions Spans, Data Source Groups |
| **LAN** | Workstations, Workstation Groups, Association of Workstations to Workstation Groups, Workstation to Extension Associations |

**—End—**

## Importing Data Source Configurations

To import data source configurations:

| Step | Action |
|---|---|

1 Select the data source for which the configuration is to be imported.

The workpane refreshes to display the selected data source.

2 Click **Import**. The **Data Source Import** window displays.

3 Complete the fields in the **Data Source Import** window according to the following table:

| Item | Description |
|---|---|
| **Import Name** | Specify a name to identify the import scheduling operation. |
| **Import File Location** | Click **Browse** and navigate to the folder where the file to be used for import scheduling is located. |



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| Item | Description |
|---|---|
| **Schedule Type** | Select one of the three schedule types:<br>• **Import Immediately** causes the import to take place immediately. No other entries are required.<br>• **Import Using Date and Time Within the File** causes the import to take place on a scheduled basis at a time specified within the file, according to the choice of Local Time Zone or Universal Time Zone fields.<br>• **Import Using Specified Date and Time** causes the import to take place on a scheduled basis on a date and time specified in the Specify In and Date/Time fields. |
| **Specify In** | Select one of two time zone options if you selected a scheduled import (that is, a schedule type other than **Import Immediately**):<br>• **Local Time Zone** causes the scheduled import to occur at the local time, so that, for example, imports would be made at different times across the globe.<br>• **Universal Time Zone** causes the import to take place at a time relative to a universal time so that, for example, imports would be made at the exact same time all across the globe. |
| **Date/Time** | Shows the date and time of the import if **Import Using Specified Date and Time** is selected as the schedule type. |

**4** Click **Import**.

**—End—**

## Deleting Data Sources

To delete a data source:

| Step | Action |
|---|---|
| **1** | Highlight the data source you want to copy. |
| **2** | Click **Delete Data Source**. A confirmation window opens, with the following warning: |



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**Deleting a data source will delete all its associated data. Are you sure you want to delete the selected data source?**

3 Click **OK** to delete the data source, or **Cancel** to cancel the deletion.

**—End—**

***Note:*** If a data source is associated with time records, deleting the data source just inactivates the data source; the datasource is still in the database, but is marked **deleted**.

## Data Source Groups

Use this tab to create, edit, and delete groups for your data sources. Data source groups identify the particular entity for which you are scheduling or forecasting, such as hunt group, skill set, queue, etc.

Click the data source you want to work with in the left pane.

To create a data source group:

| Step | Action |
|---|---|
| 1 | Click **Create Group**. |
| 2 | Type the **Name** of the group. |
| 3 | Type the **Description**. |
| 4 | Type the **Average Work Time**. |
| 5 | Click **Save**. The screen will refresh to display the data source group list with the saved group selected. |

**—End—**

To edit a group:

| Step | Action |
|---|---|
| 1 | Highlight the group you want to edit. |
| 2 | Click **Edit Group**. |
| 3 | If needed, edit the **Name** of the group. |
| 4 | If needed, edit the **Description**. |
| 5 | If needed, edit the **Average Work Time**. |



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| | |
|---|---|
| 6 | Click **Save**. The screen will refresh to display the data source group list with the saved group selected. |

**—End—**

To delete a group:

| Step | Action |
|---|---|
| 1 | Highlight the group you want to delete. |
| 2 | Click **Delete Group**. Confirm the deletion by clicking **OK**. |

**—End—**

To go to the Queue Group Mapping page:

| Step | Action |
|---|---|
| 1 | Click **Go to Queue Group Mapping** to go directly to the queue group mapping page. |

**—End—**

You can also upload data source groups from a delimited file.

To upload data source groups:

| Step | Action |
|---|---|
| 1 | Click **Upload From File**. The **Upload Datasource Groups** pop-up window displays. |
| 2 | Specify a file to upload, or click the **Browse...** button to choose a file. |
| 3 | Choose a column delimiter from the drop-down menu: **Comma[,]**, **Semicolon[;]**, or **Tab**. |
| 4 | Specify a character or characters to denote comment lines in the upload file. (Entirely blank lines are also ignored.) |
| 5 | Specify the column numbers for the input fields. Check the box next to the field name for the optional fields that are included in the file. Required fields are always checked and cannot be unchecked. |



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6 Choose a default value for the optional fields. The default value is used when a row in the file does not contain data for the field, or if the box for the field is not checked.

7 Click **Upload**.

**—End—**

## Skill Mapping

Use this tab to map skills to queues for use with outsourcing.

The left pane lists all the data sources, but if you select any data source other than Outsourcer, you will see the following message displayed in the right pane:

**Skill Mapping is available for OutSourcer Data Sources only**

The right pane consists of a table with three columns:

- The **Name** column displays all data source skill mappings that have been created. You specify the name at the time of creation.
- The **Description** column gives a brief description of the data source. You also specify the description at the time of creation.
- The **Mapped Skill** column lists the skill that has been mapped.

To create a new skill mapping, click **Create Mapping**.

To edit the name, description, or change the skill for any mapped skill, click **Edit Mapping**.

To delete an existing mapping, click **Delete Mapping**. Only the mapping is deleted; skill information is not deleted.

## Activity Mapping

Use this tab to map activities to queues for use with outsourcing.

The left pane lists all the data sources, but if you select any data source other than Outsourcer, you will see the following message displayed in the right pane:

**Activity Mapping is available for OutSourcer Data Sources only**

The right pane consists of a table with three columns:

- The **Name** column displays all data source activity mappings that have been created. You specify the name at the time of creation.
- The **Description** column gives a brief description of the data source. You also specify the description at the time of creation.



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- The **Mapped Activity** column lists the activity that has been mapped.

To create a new activity mapping, click **Create Mapping**

To edit the name, description, or change the skill for any mapped activity, click **Edit Mapping**.

To delete an existing mapping, click **Delete Mapping**. Only the mapping is deleted; activity data is not deleted.

## Transformation Operations

As mentioned previously, operations data can be imported in many forms. These forms need to be transformed during the import process into a form that can be used in Workforce Management.

The **Transformation Operations** tab, which is only visible if you are licensed for the Operations features, and have created an Operations data source, consists of a data source selector pane and a number of areas allowing you to specify the required data transformations.

The transformation you specify here is a step in the processing of the Operations – Event File Import and Transform adapter and the Operations – Arrival Processing adapter. The information you supply here governs the mapping, processing, and conversion from the import file format(s) to the data schema used in Workforce Management. The transformation is configurable for each individual Operations data source. The adapters provide for the scheduling and periodic execution of the transformations.

The configuration of the Operations – Event File Import and Transform adapter governs the mapping between data import frequency, data transformation, and import file location. A new adapter needs to be created for each variation in those items.

The Transformation Operations tab consists of a Data Source Name selector and six data areas on the right-hand portion of the page:

- **Import Attribute Specification**
- **Import attribute | Default value**
- **Lookup value | Replace value**
- **Import attribute | Filename mask**
- **Operations attribute**
- **Import Attribute Specification** (checkbox)

To specify a transformation for an operations data source:



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| Step | Action |
|---|---|
| 1 | Select an operations data source in the Data Source Name selector pane. |
| 2 | Specify the column headings of the import file. The **Import column headings and attributes** field is a text box. Enter the headings as a comma-separated text string. The headings should be in the order that they appear in the import file. Column headings must be single words; no spaces are allowed. |
| 3 | Check the **Take event create date from file timestamp** box to use the import file's timestamp as the imported events' creation date. This box is used in case the file to be imported doesn't have a Date column. You can then select the file timestamp as the date to be shown next to each event that is in the file. Selecting this option disables the **Create Date** row in the **Operations attribute** table. (The box next to **Create Date** is empty; no Date name needs to be entered in the **Import column headings and attributes** field.) |
| 4 | Check the **Rollup events to 15 min buckets** box to roll up event data within 15 minute "buckets." This is to reduce the number of events where very fine grained data is imported.<br><br>For example, consider an import file with the following data:<br><br>**Count,DS, ID, Event, Value, Date**<br>**0, Oahu, 1A, 1, 10, 10-11-2007 09:00:00**<br>**1, Oahu, 1A, 1, 20, 10-11-2007 09:01:00**<br>**2, Oahu, 1A, 1, 15, 10-11-2007 09:06:00**<br>**3, Oahu, 1A, 1, 10, 10-11-2007 09:10:00**<br>**4, Oahu, 1A, 1, 5, 10-11-2007 09:15:00**<br>**5, Oahu, 1A, 1, 12, 10-11-2007 09:29:00**<br><br>If you were to roll these up into 15 minute buckets, you would see two events in the web application: those from 09:00:00 through 09:14:00, and those from 09:15:00 through 09:29:00. The aggregate of the first event would be 55 (10+20+15+10), and the second 17 (5+12). |
| 5 | Optionally specify attributes and default values by clicking **Add** and specifying an Import attribute and its associated default value.<br><br>Some files have default, unspecified data on a per file basis. You can specify attributes and default values on a per data source basis. These attributes can then be treated just like a column attribute from within the file. For example, they can be used with a mask, arithmetic processing, aggregated with other columns, and so forth.<br><br>For example, if a file did not contain a Date column, you could specify a default value for Date. |



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6 Specify look-up values and replacement values by clicking **Add** and specifying a value to look for in the import file, and the value to convert it to upon import.

This feature is especially useful if, for example, you have too many data source groups. Consider an import file with the following data:

**Count,DS, ID, Event, Value, Date**
**0, oahu1, jane, 1,100, 10-12-2007 09:00:00**
**1, oahu1, jane, 2, 20, 10-12-2007 09:00:00**
**2, oahu1, jane, 3, 15, 10-12-2007 09:00:00**
**3, oahu2, jane, 1,100, 10-12-2007 09:00:01**
**4, oahu2, jane, 2, 20, 10-12-2007 09:00:01**
**5, oahu2, jane, 3, 15, 10-12-2007 09:00:01**
**6, oahu3, jane, 1,100, 10-12-2007 09:01:01**
**7, oahu3, jane, 2, 20, 10-12-2007 09:01:01**
**8, oahu3, jane, 3, 15, 10-12-2007 09:01:01**
**9, oahu4, jane, 1,100, 10-12-2007 09:02:00**
**10, oahu4, jane, 2, 20, 10-12-2007 09:02:00**
**11, oahu4, jane, 3, 15, 10-12-2007 09:02:00**

You can consolidate the four different data source groups into one.

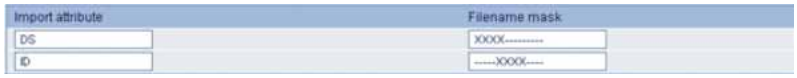
***Note:*** If two or more Data Source Groups have events that take place in the same time, the same type events should be aggregated.

7 Specify any file name masking needing to be done by clicking **Add** and specifying the column containing the data and the file name mask to apply.

The file name may be used to transfer information that applies to all of the events within the file. Attributes can be declared and masked out of the file name. These attributes can then be treated just like a column attribute from within the file. For example, they can be used with a mask, arithmetic processing, aggregated with other columns, and so forth.

Use the character **X** to extract a character from the file name, and the underscore character _ to ignore a character.

For example, if your input file name contained both the employee ID and the data source group name, such as **Oahu,jane.csv**, you could use the following mask for that information:




8 Specify the transformation for each Operations attribute you want to make on the data.



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Given a text file with column data, there are five basic operations available to apply to transforming the data:

- Column to data field mapping, including aggregation of multiple columns.
- Date formatting.
- Arithmetic operation
- Lookup and replace operation
- Masking

These operations can be combined (with some restrictions) for each required Operations attribute. The list of Operations attributes is:

- **Event type**: Arrival, Check-out, Check-in, Work-in-Progress (WIP). This field is mandatory.
- **Value**: Amount of work for the event.
- **Employee ID**: Identifies the employee. This is the **Employee ID** specified for the data source on the **Profiles** tab in the **People** module for that employee. The is alpha-numeric, and unique.
- **Data source group**: Data source group name for the event.
- **Create date**: Date of the event.

For example, consider an import file with the following data:

**Count,DS, ID, Event, Value, Date**
**0, Oahu, 1A, 1, 3, 10-11-2007 09:00:00**
**1, Oahu, 1A, 1, 4, 10-11-2007 09:01:00**

The Operations attributes would then be entered as:

**Event type: Event**
**Value: Value**
**Employee number: ID**
**Data source group: DS**
**Create date: Date**

**ATTENTION**

Import files generally have one additional column that is usually named **Count**. **Count** is the column heading that counts the number of rows that have data in the file to be imported. This column needs to be among the column headings listed in the **Import column headings and attributes** field near the top of the page.

For the arithmetic and logical operations, enter the calculation, in terms of the import file column headings.



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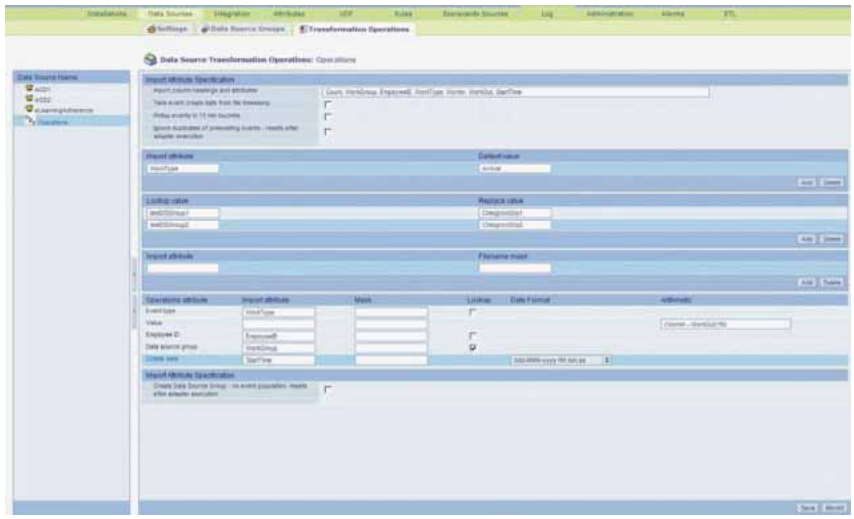
Spaces must be entered before and after mathematical operators. Formulas that include parentheses are not supported. For example, **a*(b+c)** should be entered as **a * b + a * c**.

For the mask, enter the pattern to apply. For example, if the file to be imported has the information for Employee ID and Data Source Group shown in one column (DS_ID), such as oahu_jane, you could use the following mask:

| Operations attribute | Import attribute | Mask |
|---|---|---|
| Event type | WorkType | |
| Value | | |
| Employee ID | DS_ID | ____XXXX |
| Data source group | DS_ID | XXXX____ |
| Create date | StartTime | |

For the Date Format, select one of the date formats from the drop-down selector.

The following screenshot illustrates a completed transformation specification:



9 To auto-create data source groups, check the **Create Data Source Group - no event population, resets after adapter execution** checkbox. This checkbox can be used the first time you import data, to facilitate the creation of data source groups. No other data is imported this time.

***Note:*** Once created, these data source groups then have to be manually mapped to respective queues in the **Work Queue Group Mapping** tab under **Work Queues** in the **App Admin**



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module. Once mapped, the first file has to be reimported to populate the rest of the VCT data.

10 Click **Save** to save your transformation.

11 Configure an Operations - Event File Import and Transform adapter to use the Operations data source for which you configured the transformation. Refer to the online help for the Operations - Event File Import and Transform adapter for more information.

**—End—**

# Integration

The Integration module gives you access to Integration Server, an open integration platform that provides seamless information flow between contact center data sources and applications, and the Workforce Management.

## Understanding Integration Server

Integration Server consists of the following main software components:

- The Integration Server server, which resides on a server machine.
- The **System** module within the Nortel Workforce Management. This module configures the server.
- Integration packages, adapters, and interfaces for the most common types of ACDs. These include Time Collection, Historical Time Collection, Agent Sync, Scorecards Agent Stats, and Contact Statistics. Integration Server also provides generic adapters and interfaces that you can use as a framework to create custom adapters and integration packages.

Integration Server supports data exchange via a variety of protocols including file based (XML or fixed format), all major database protocols, and a variety of proprietary based CRM and telephony protocols. In addition to integrating with Nortel Workforce Management, Integration Server provides the functionality to manage integration with ACDs, CTIs, and email systems.

The Integration Server server runs as a service on a Windows 2000 server computer. The Verint Integration Server server should always be set to run as a service on Windows 2000.

### Server Architecture

The Integration Server provides the following services:

- Framework services for managing integration tasks (in the form of integration adapters and interfaces). These services include security,



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licensing, database access, workflow management, error detection and recovery, logging and alerts, and watch dog and scheduling services.

- Monitoring the status of adapters and interfaces (example, connection to the ACD)
- Controlling adapters and interfaces (start, stop)
- Supplying configuration information to adapters and interfaces
- Passing data from the adapters and interfaces to the Nortel Workforce Management database.

The Integration server and the adapters and interfaces talk to each other using a protocol called Common Object Request Broker Architecture (CORBA). This architecture enables pieces of programs, called objects, to communicate with one another regardless of the programming language they were written in, or the operating system they are running on.

### Adapters and Interfaces

All Integration Server adapters and interfaces are currently designed to run on the same machine as the Integration Server.

**Adapter Managers** Each adapter is managed by an adapter manager (one for each adapter instance). All adapter managers are configured on the Integration Server. An adapter manager sends commands or configuration information from the Integration Server to the adapter, and the adapter sends event information to the Integration Server through the Adapter Manager. Each adapter is a separate process.

## Integration Server Features

Integration Server provides several advantages by integrating call center components. A single installation of Integration Server can simultaneously integrate multiple Automatic Call Distributors (ACD), Computer Telephony Integration (CTI) Servers, Report Servers, and/or Intelligent Routers with the Workforce Optimization Solution server. This provides a stable, reliable, easy-to-use, cost-effective system for accessing and importing agent information, monitoring agent adherence, and synchronizing agent data from multiple sources. In addition, Integration Server includes robust error detection and logging. It also includes reporting for easy troubleshooting, as well as the ability to manage your adapters and interfaces except for the parts which reside on the source systems.

Integration Server simultaneously supports a variety of technologies, including:

- Remote configuring and monitoring
- Simultaneous support of multiple types of data sources
- Historical data import



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- Dynamic report importing workflow management
- Diagnostics
- Enhanced error logging with user-configurable viewer
- Automatic startup as a service
- Extensible, including custom solutions
- Multi-contact support
- Multi-contact adapters
- Time Collection (Real-Time Agent Adherence (RTAA))
- Historical Time Collection (Historical Agent Adherence (HAA))
- Data Junction
- Agent configuration
- Agent performance data import

These are described further on in this chapter.

## Managing Integration Server

The **Integration** section of the Workforce Management's **System** module shows you the names of the various integration servers for your site, their fully qualified names, and the RMI ports through which they communicate.

Once you select one of the servers and click **Edit Configuration**, the display changes to show you the configured adapter packages and their components. The left pane of the window displays a tree format that includes:

- the Integration Server server (the machine name is displayed to the right of the words Integration Server in the format of [Root@<MACHINE NAME>])
- the selected integration packages
- their components.

The right window displays the available tabs for the selected server, package, or components. This window is described in detail in "Using Integration Server Integration Packages" (page 273).

***Note:*** When the top level (Integration Server) is selected on the left (this level is also referred to as root level), you also can see the machine name displayed near the top of the right window.



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Each integration package contains a set of **integration components** that are designed to do a specific integration task, including retrieving and manipulating the specified data from the data source. Integration components can be either predefined (come as part of the package) or user specified. The extent of the tree depends on how many integration packages have been added to the Integration Server server, and how many components each package has.

The system assigns default names in the tree view. The names are followed by system names in brackets. You can change all adapter and interface names and descriptions as desired, but you cannot change those of the adapter or interface components.

### The Integration Sections Layout

As described previously, once you have selected an integration server and clicked **Edit Configuration**, the display changes to show you the configured integration packages and their components. Each major part in the left pane, whether the Integration Server, adapter or interface, or component, has associated with it a specific set of tabs that are displayed in the right window. You use these tabs to manipulate its settings. Only the tabs that you have permission to use are visible. These tabs are described briefly below and are covered in detail in "Using Integration Server Integration Packages" (page 273).

**Integration Server Tabs** The Integration Server is the highest level component in the Integration Server Configuration window's tree. The content and structure of the Integration Server is controlled by a set of tabs. These tabs are described below.

- **Monitor** tab

  At the package level, the **Monitor** tab displays the status of the package and its components. You can also use this tab to control the operation of the package.

- **Configure** tab

  At the Integration Server level, the **Configure** tab is used to set up the description of the Integration Server. It also allows an advanced configuration parameter to be set.

- **Workflow** tab

  At the Integration Server level, the **Workflow** tab is used to activate or deactivate the integration packages, or specify the order in which they should run.



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**The Monitor Tab** The **Monitor** tab is shown when you select the Integration Server **[Root@<MACHINE NAME>]**. This tab consists of two containers:

- **Integration Server Status**

  You use this tab to view the current status of the server. From this tab, you can also start and stop the integration server.

- **Manager Status**

  You use this tab to view the current status of the integration tasks. An integration task is a logical grouping of one or more functional components that together can perform tasks such as real-time agent monitoring.

  From this tab, you can start and stop the integrations task packages that are listed in the container.

  The controls for this tab are described in the following table.

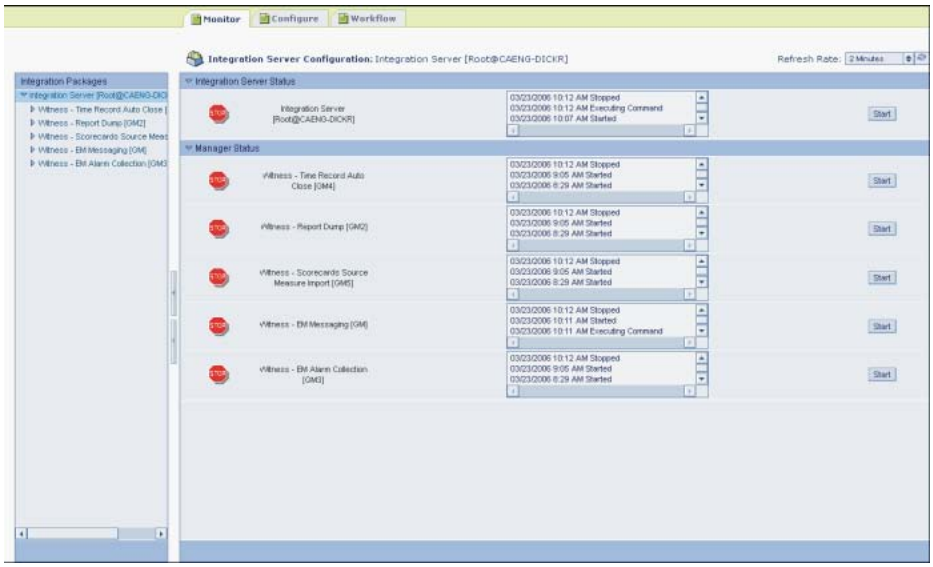
| Item | Description |
|---|---|
| Integration Server Status | This container's scrollable area shows the dates and times of the server's last ten events. |
| Manager Status | This container lists all the Integration Server packages that have been installed. The scrollable area to the right of each listed package shows the date and time of the last change made to the selected Integration Server Package. |
| Stop/Start | This button is used to stop the related integration component. Click on the button to stop the process. When the process is stopped, a red "stop-sign" icon appears on the left of the screen in line with the process. When you stop a sub task, the server and all other sub tasks remain active. However, when you stop the server, you also stop all of the server's packages. |
| Status Light | A status light appears to the left of the server or a package. If a red or yellow light is displayed, go to the log and read the message to determine the cause. A red light means that the latest status message shows an error. A yellow light means that there has been an error within the last ten messages. The status light will turn green when there is no error in the last ten messages. |


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**Stopping and Restarting the Server and its Packages** To stop a selected integration package, click on the **Stop** button to the right of its name. As shown in the following illustration, only that package is stopped. The server and other packages remain active. Note that the **Stop** button legend changes to **Start**. To restart the package, click on the **Start** button.

To stop the server and all packages at once, click the **Stop** button shown at the right of the Integration Server Status container. As shown in the following illustration, the server and each of its packages are stopped and the **Stop** icon appears to the left of each listing.

> ***Note:*** All packages, no matter what their current status is when the server is stopped, are automatically restarted when you restart the server.




**The Configure Tab** The **Configure** tab for the Integration Server is shown below. Its controls are described in the following table.

| Item | Description |
|---|---|
| Integration Server Settings - Server Description (read/write) | The name of the Integration Server is displayed in the **Description** field. To change the name of the selected unit, enter a new name in the field and select **Save**. |
| Advanced Configuration | Do not change any of the settings in this container unless you are so instructed by Verint Technical Support. |



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**The Workflow Tab** The **Workflow** tab allows you to enable and disable integration server packages and determine the order in which they run. The following table describes the features of the Workflow tab.

| Item | Description |
|---|---|
| Available Packages | Lists the available integration packages, including:<br>• licensed adapters for vendor-specific systems<br>• generic packages, which you can customize as needed (and which do not require a license) |
| Selected Packages | Lists the integration packages that you have currently selected to deploy with the integration server. |

Use the arrows between the list of available and selected packages to add or remove packages. Use the up and down arrows to the right of the list of selected packages to reorder the components, and thus, the workflow. Select a component and press the desired arrow to move the component up or down as needed.

For information on enabling and configuring adapters, refer to "Using Integration Server Integration Packages" (page 273).

## Using the Log Tab

You use the **Log** section of the **System** module to set up and view the system log to determine system status and errors.

> ***Note:*** The default location of the log files is:
> **C:\Documents and Setting\<username>\Local Settings\Application Data\Verint Systems\Forecasting and Scheduling\Logs**
> Under Windows Vista, however, the default location of the log files is:
> **C:\Users\<username>\AppData\Local\Verint Systems\Forecasting and Scheduling\Logs**

### Log Viewer

The **Log Viewer** tab displays the current system log. It starts with the most recent event.

- Click **Next** to view the next page of the log.
- Click **Reset** to return to the most recent event.

To configure the log:

| Step | Action |
|---|---|
| 1 | Click **Configure**. The Log Viewer Configuration page opens. |



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2 Select the server you want to log information for.

3 Select the log type from the drop-down menu.

- **Default**—Logs system data according to the current log configuration.
- **Error Dump**—Logs additional information used to troubleshoot problems.

4 Type in the items to use to filter the report. The report will contain only these items.

5 Select the severity of the errors to display.

6 Select the time frame of the report.

7 Click **Save**. The filtered report is displayed.

**—End—**

### Log Manager

Use the **Log Manager** tab to select among different system log configurations, which determine the type of information that will be logged. Configuration options are included as .xml files.



**CAUTION**
Do not change any of the active log configurations except in consultation with Technical Support. Changes can have a significant impact on the performance of your system.

To activate a configuration:

| Step | Action |
|---|---|
| 1 | Select the server from the list in the upper right corner of the page. |
| 2 | Highlight the configuration that will provide the information you want and click **Activate**. |

**—End—**

## Administration



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## General

The **General** side-bar element lets you configure various system-wide options. Click the expansion button to open a section.

***Note:*** While many of these options are straightforward, others can impact the speed and stability of the Workforce Management and should be changed only by a qualified individual. Check with Technical Support if you need additional assistance.

### Licensed Languages

Shows the list of languages for which your product is licensed. Click the checkbox next to the licensed languages you want to make available. (Currently, only English is supported.)

### Locale Defaults

Choose the default settings for your location:

- **Default Language**—Choose a language from the drop-down list. Available languages are set in the previous container, Licensed Languages.
- **Default Regional Format**—Choose the default formats for your region. These formats affect the display of:
  - — Date (short and long formats, order, separator)
  - — Time (12 or 24 hour and relevant symbols, separator, leading zero)
  - — Currency (symbol, number settings)
  - — Number settings (000 separator, decimal point character)
  - — First day of week (in calendars)
- **Default Time Zone**—Choose a time zone for your location. This setting can be overridden by individual users for their own display in the Preferences window. See "Setting Preferences" (page 51).

### User Defined Fields

Type the names for up to ten user-defined fields. They must be defined consecutively, but you do not have to define all ten. Fields with these names are displayed in the People and My Profile modules and in Forecasting and Scheduling.

***Note:*** If Quality Monitoring is also in use, the first user defined field is set to **Quality Site Name**.

To accommodate the display length of the user-defined fields within Forecasting and Scheduling, limit the names to 25 characters or less.



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## System Configuration

***Note:*** The web server must be rebooted before changes to these parameters will take place.

- **Application Server Name:** The server name on which the current application is hosted. This is used, for example, to allow the application to embed links within a URL to allow a user to log back in to the server when the user clicks on the link.

  ***Note:*** This field is automatically populated but you might need to update this value if you are using a firewall or load balancer.

- **Application Server Port:** The server port on which the current application is listening. This is used, for example, to allow the application to embed links within a URL to allow a user to log back in to the server when the user clicks on the link.

  ***Note:*** This field is automatically populated but you might need to update this value if you are using a firewall or load balancer.

- **Application Context Path:** The context path that the current application is using. This is used, for example, to allow the application to embed links within a URL to allow a user to log back in to the server when the user clicks on the link.

  ***Note:*** This field is automatically populated but you might need to update this value if you are using a firewall or load balancer.

- **System Account Name:** Specifies the account name used by internal applications to authenticate against each other.
- **System Account Password:** Specifies the account password used by internal applications to authenticate against each other.
- **Session Timeout (minutes):** Inactive sessions will time out after the specified number of minutes.



**CAUTION**
The Session Timeout parameter should only be changed at the direction of Technical Support.

- **Apply Session Timeout to Auto Refresh Pages:** Checking this box enforces the session time out period even on auto-refresh pages. When this box is checked, auto-refresh requests do not keep a user session alive beyond the session time out period specified in the Session Timeout (minutes) field.



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- **Return Server Hostname instead of IP to Client:** Checking this box enables the system to return a hostname to Forecasting and Scheduling, instead of an IP address, for load balancing. This flexibility has been added for use with the Single Sign-On (SSO) feature.
- **JavaScript Load Error Detection:** Enables a diagnostic tool to run to detect JavaScript loading errors (typically caused by network congestion). It should only be turned on when requested by Technical Support.
- **Restrict Remote Connection to SSL:** Enables the system to enforce connection to the server through SSL encryption only. SSL encryption must also be enabled for your WebLogic server.
- **Use SSL Encryption for Sensitive Data (Requires SSL Certificate):** Enables SSL Encryption to be used for transmitting passwords. SSL encryption must also be enabled for your WebLogic server.
- **SSL Port:** Specifies the port on which the SSL data is transmitted. The value entered here must match that specified for the SSL Listen Port setting in WebLogic.
- **Is System Configured to Support SSO (Trusted Login):** The Single Sign-On (SSO) feature allows a user to be authenticated using Windows log-in credentials. For this feature to work, a user needs to have a user account in Nortel Workforce Management with the same user name as the Windows user name. When this setting is checked, the log-in screen has an extra check-box: **Trusted Login**. When the **Trusted Login** box is checked, the user name and password fields are disabled. Users are authenticated automatically using Windows credentials when they click the **Login** button. If a user unchecks **Trusted Login**, the user name and password fields are enabled, allowing the user to provide any valid user name and password to log in to the application.
- **Is in Non-Primary (Slave) Mode:** By default, Workforce Management is configured to be in Primary Mode for editing user information, such as user name, password, account status, for both the **Users** tab and the **My Profile** section. In non-primary mode, user information is maintained by a non-Nortel Workforce Management server, which is now the primary server, and is synchronized to the Nortel Workforce Management non-primary server. As a result, in non-primary mode, Nortel Workforce Management disables editing of the user information mentioned previously, as well as disabling editing of employee names, email addresses, end dates, and switch IDs. In addition, **Import**, **Create**, **Terminate**, and **Delete** buttons, and the **[Register]** and **[Reset Password]** buttons on the log-in screen are also disabled.
- **Is External Authentication Token Supported:** Specifies whether external tokens are supported.


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- **External Token Authentication Server URL:** Specifies the URL of the external authentication server used to authenticate an external token.

### Password Policy

The parameters under this section are used to protect user accounts.

- **Activate Password Policy:** If your security realm is modifiable, such as DBRealm, clicking this checkbox enables enforcement of the password policy, which can be customized using the other parameters in this section.
- **Validate Policy On Login:** The administrator can choose to apply the active password policy either the first time users log in after the policy is activated, or the first time users change their passwords. When this box is checked, the active password policy will be enforced the first time users log in after the policy is activated. When this box is not checked, users who have passwords that do not adhere to the active password policy can continue to use the passwords until they try to change their passwords.
- **Password Minimum Length:** Specifies the minimum number of characters required for a user's password. A value of zero in this field turns off password length validation.
- **Password Maximum Age (days):** Specifies the number of days for which a user's password remains valid. After the specified number of days, the password expires and the user of the account is prompted to reset the password. The expiration count resets each time a user changes the password. A value of zero for this field turns off password age validation.
- **Password History (number):** Specifies the number of previous passwords stored in the system for a user account. When a user tries to reset the password, the user is forced not to use any of the stored passwords. A value of zero for this field disables password history validation.
- **Password Pattern:** Specifies the format to which all user passwords must confirm when password pattern policy is activated. For example, alphanumeric characters: this pattern enforces that the user password must have only alphanumeric characters. Choosing the **blank** option from the drop-down disables password pattern validation. The **blank** option might need to be chosen to allow users to use double-byte characters.

### Account Locking Policy

The parameters under this section are used to protect user accounts.

- **Activate Account Locking Policy:** Clicking this checkbox activates the account locking policy. When this policy is turned on, a user account



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status can be automatically switched to locked based on the other parameters listed in this section. When this policy is turned off, user accounts already with locked status are still prevented from accessing the system. For example, administrators can change the user status to locked in the User Management screen; that user cannot log in even when this setting is turned off, because this setting is for automated changes of user status to locked.

- **Lockout Threshold:** This parameter only applies to failed login attempts. Specifies the number of consecutive failed attempts to log in to a user account after which the account will be locked. An account locked this way can be unlocked by a system administrator or auto-unlocked after the time value specified by the **Lockout Duration (minutes)** parameter. A value of zero disables lockout threshold validation.
- **Lockout Duration (minutes):** This parameter only applies to failed login attempts. Specifies the number of minutes a locked-out account (because of multiple failed login attempts) remains locked before being automatically unlocked. A value of zero disables automatic unlocking of locked accounts. In such case, only an administrator can unlock the user accounts.
- **Lockout Inactive User Period (days):** Specifies the number of days of inactivity after which a user account is automatically locked. The user account, once locked this way, can only be unlocked by an administrator. A value of zero disables this feature, that is, inactive user accounts are not locked automatically.

### Forecasting and Scheduling Database Configuration

Sets the database host and database names used in Forecasting and Scheduling:

- **Database Server Hostname**–Specifies the name of the server on which the database is located.
- **Database Name**–Specifies the name of the database used by both Forecasting and Scheduling and the Workforce Management.
- **Primary Database - user password**—Specifies the adminstrative user's password for the **BPMAINDB** database.
- **Whatif Database - user password**—Specifies the adminstrative user's password for the **BPWHATIFDB** database.

### Integration Server Mapping

Allows you to toggle the display of unmapped activities and reason codes:

- **Show Unmapped Activities for Time Collection Mapping**—Display activities and reason codes that are not mapped to one another.



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- **Show Mapped Data Source Group for Queue Mapping**— Display the data source groups that are mapped to other queues, when mapping a queue to data source groups.

### Integration Server Configuration

Sets configuration options for Integration Server:

- **Cache Refresh Sleep Time**—Rate at which the cache is refreshed. A low value means the cache will be in synch frequently but will also consume CPU cycles. A high value would load the system to a lesser extent with a proportional risk of desynchronization. The default value is 300,000 milliseconds.
- **Cache Retry Count**—When the system determines that the cache needs to be reloaded, it waits to see if the database is still being changed. It doesn't reload the cache until it the changes have stopped. This parameter is the number of times it will check for the system to stabilize before it gives up and reloads the cache.
- **Cache Retry Interval**—The maximum amount of time to wait before checking to see if the cache needs to be refreshed. The system actually checks for cache changes more frequently but slows down over time until it checks at the rate specified by this parameter.

### Reports

Sets parameters for the Cognos server. The application server must be rebooted before changes to these parameters will take place.

- **Web Server Name**—The server and port on which Cognos is installed.
- **Enable Report Trimmer**—If this option is unchecked , the Report Trimmer job will not be scheduled to run, no matter what other values for the Report Trimmer properties have been set. By default, this option is unchecked.
- **Report Trimmer Frequency (hours)**—The frequency at which the Report Trimmer job is requested by the Workforce Management application to remove expired or excessive report instances from the system. The value 0 means that Report Trimmer should not run, even if the parameter **Enable Report Trimmer** has been checked. The default value for this parameter is 24. Changes to this parameter take effect the next time the application server is rebooted.
- **Trim Expired Instances (older than N days)**—Report Trimmer uses the value for this property to remove expired instances. The value 0 means that expired instances will not be trimmed. The default value is 31. Changes to this parameter take effect the next time the application server is rebooted.


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**ATTENTION**

If your license includes the optional Dashboard feature, be aware that each time a user views a dashboard, a new report instance is created if none already exists for the report being viewed. Because this process can impact performance adversely, it is recommended that you take care not to set Report Trimmer to remove instances faster than the report is normally scheduled to run.

- **Trim Excessive Instances (keep maximum N per schedule, keep maximum N unmanaged instances per report)**—Report Trimmer uses the value for this property to remove excessive managed (scheduled) instances for each report schedule and unmanaged ("run now") instances for each report. The value 0 means that excessive instances will not be trimmed. The default value is 5. Changes to this parameter take effect the next time the application server is rebooted.
- **Maximum number of instances per schedule**—Report Trimmer uses the value for this property to trim excessive managed (scheduled) instances for each report schedule.
- **Max Data-refresh Lookback (days)**—The maximum number of days in the past for which a report dump will refresh data.
- **Dump Chunk Size**—During report dump, this parameter determines the number of employees in a single report dump chunk. You should not normally need to modify this parameter. When users get time out errors during a report dump, the default value of 100 can be reduced to eliminate the time out.
- **Dump Thread Number**—The number of threads to use with Report Dump. The default is 1.
- **Dump Max Retry**—When many users are running real-time reports (see "Real-Time Reporting for Adherence" (page 217)) at the same time (which triggers a report dump), database collisions sometimes occur. This parameter specifies how many retries should be attempted in case of failure. The default is 10. Normally this value does not need to be changed.
- **Request Timeout (minutes)**—The system will wait this long before timing out a report request.

  ***Note:*** When dealing with large data sets, some reports might time out. In such cases, ask your administrator to increase the setting of this parameter. The default setting is 10; increasing the value to 30 or 60 should allow the report to run without timing out.

- **Status Polling Frequency (seconds)**—The frequency at which the current report data is requested.



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- **Use Live Data For Adherence Reports**—Reports are typically run against data that is prepared at regular intervals, typically once a day. (See "Report Dump" (page 215).) However, if this option is checked, adherence reports will also process data that has been entered in the system since then. These reports are referred to as real-time reports (see "Real-Time Reporting for Adherence" (page 217)).
- **Enable Adhoc Dump**—Because the data dumping requirements for ad-hoc reports are processing intensive, this function is disabled by default. If you want to use this feature, check the box to enable it.

### My Time Integration

Enable a special Client Side integration with Kana.

These parameters should only be changed at the request of Technical Support.

### Time Records

Set parameters for the **Tracking** module. The web server must be rebooted before changes to these parameters will take place.

- **Automatically Close If Last Event Is Longer Than (minutes)**—The duration in minutes of the last event in a time record before it is closed automatically by Workforce Management.
- **Automatically Merge Time Records**—Adjacent time records will be merged by Workforce Management.
- **Automatically Merge Time Records If The Time Interval Between Them Is Less Than (minutes)**—If time records have less than this time between them, they will be merged by Workforce Management.
- **Lookback Interval (minutes)**—To improve performance in larger organizations, you can limit how far back in time Workforce Management looks for time records. The lookback interval should be set to the longest anticipated event for this system. The default is 480 minutes.

  For example, consider an organization where:

  — The earliest shift end time is 3:00 p.m. EST.

  — The latest shift end time is 11:00 p.m. EST.

  — The longest event allowed is 300 minutes (five hours).

  The Time Record Auto Close adapter is triggered as soon as the time limit is reached if the agent has activity past that time limit. Under the above scenario, the earliest the Time Record Auto Close adapter can therefore run is 4:00 a.m. EST (the length of the longest event (five hours) after the latest shift end time).



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The length of time that the Time Record Auto Close adapter then needs to look back is:

(**(<Hours from midnight when the Time Record Auto Close adapter runs>) + (<time from the earliest shift end to midnight>)**)*60 = (four hours + nine hours) or 13 hours*60 = 780 minutes

- **Eliminate Zero Duration Entries**—Specifies if events with zero duration should be deleted.

### Quick View

Display or suppress the column for the agents' organization on the **Quick View** page.

- **Show Organization Column**—When enabled, a column showing the agents' organization is shown on the Quick View page.

### Scorecards

Sets configuration parameters for Scorecards:

- **%Met - Count Only People With Scores**—If checked, only those employees with scores are used in the % Met calculation. In addition, the list of underperforming employees will only contain employees with scores.
- **Source Measures - Convert Null Values to Zeros**—When the value of a KPI's formula is calculated, some source measures may have null values. This situation can occur for many reasons, the most common of which is no data in the source. This parameter causes the calculation engine to treat null values in the source measure as zero values. As an example, consider a KPI using the formula **bm1+bm2**, where **bm1** is null. If the checkbox is checked, the calculation engine will return **bm2**. If the checkbox is not checked, the calculation engine will return a value of null, the equivalent of no score. The value associated with **bm2** will not be shown.
- **Audit Source Measures**—Use this checkbox to enable or disable auditing of any insertions or updates of source measures entering Scorecards. The audit is stored in the table **AUFACTBASEMEASURE** in the database **BPWAREHOUSEDB**.
- **Enable Period to Date Scorecards**—Use this checkbox to enable or disable score calculations before the end of the period. Users expect to be able to access Weekly and Monthly scores before the completion of the period. Period-to-Date scores are calculated by running the Scorecards – Calc Engine adapter for a period before all days in that period have been populated. Enabling this feature can adversely affect performance of the Workforce Optimization Solution.


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***Note:*** KPIs that use source measures that are loaded on a weekly or monthly basis (and not daily) will not work with the period-to-date feature.

- **Enable Calculation Engine Performance Diagnostics**—Use this checkbox to enable or disable writing calculation engine performance diagnostics to the log table **WHPERFORMANCELOG** in the database **BPWAREHOUSEDB**.
- **Maximum number of days to recalculate (per each calc engine run):** Specifies the maximum number of days to recalculate (per each calculating engine run). The default is 5 days.
- **Maximum recalculation time (in minutes):** Specifies the maximum recalculation time (in minutes). The default is 60 minutes.
- **Maximum numbers of periods:** Specifies the maximum number of periods users can see in Scorecards' KPI Trends view and Scorecards' History view. This value is the maximum number a user can select from the **Show** drop-down list in **History** view and from **For the last** drop down list in KPI Trends view. The default is 30, which is also the maximum number that can be specified. The minimum value that can be specified is 4.
- **Show "Filter Out Of Sync" warnings:** Use this checkbox to enable or disable the notification displayed when a Scorecards filter becomes invalid or inconsistent:

  **The current Scorecard filter has become inconsistent because of Administrator changes to the Configuration. Please edit and save the current filter.**

  (This can occur for a variety of reasons, including deleted KPIs, changes to access rights, etc.) Editing and saving the filter creates a filter that is valid at its time of creation.
- **Enable Supervisor Rollup:** Click this check box to enable or disable supervisor roll-up aggregation during KPI calculation (that is, aggregating employee source measure and KPI values to the supervisor level).

### Applet Settings

Controls the version of Java Runtime Engine (JRE) used to run the Java applets, which are used to display information on some pages in the Workforce Management.

- **Static JRE Versioning:** When checked, the Workforce Management looks for a specific JRE version to run the Java applets. If the client machine does not have this particular JRE version installed, an installation prompt for this JRE is presented to the user when the applet is first loaded. When it is not checked, the Workforce Management does



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not check the JRE version. The applet can then be run on more recent versions of the JRE, provided that they have been certified by Nortel. Please contact Technical Support. Once this installation is complete, the applet can then be run.

### Application Server Cache

Sets the cache parameters.



**CAUTION**
These parameters should only be changed at the direction of Technical Support.

### Database Truncation

Set parameters for the retention of data. To maintain performance, the growth of various database tables needs to be controlled. This control is implemented by removing data that is older than the specified retention period:

- **Reports:** Specifies the retention period (in months) for report dump data.
- **Time records:** Specifies the retention period (in months) for time records and adherence data.
- **Schedules:** Specifies the retention period (in months) for schedule and forecast data.
- **Queues:** Specifies the retention period (in months) for queue statistics.
- **Audit-Trail Compliance:** Specifies the retention period (in months) for compliance-related audit trail information (typically seven years, or 84 months).
- **Audit-Trail Non-Compliance:** Specifies the retention period (in months) for non-compliance-related audit trail information.
- **VCT Events Managed**—Operations license-specific. Specifies the retention period (in months) for historic VCT managed events that are inserted on the **Work** tab of the **Volumes** section of the **Tracking** module, or by the Operations - Operations Arrival Processing adapter. (Managed events are those that have been converted to volumes by the Operations - Operations Arrival Processing adapter.)
- **VCT Events Unmanaged**—Operations license-specific. Specifies the retention period (in months) for historic VCT unmanaged events that are inserted on the **Work** tab of the **Volumes** section of the **Tracking** module. (Unmanaged events are those that were recently inserted and



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have not yet been converted to volumes by the Operations - Operations Arrival Processing adapter.)

### Request Management

Set parameters for the **Requests** module.

- **Shift Bidding Background Task Interval (minutes)**—The shift bidding background task synchronizes any schedule changes made to the phantoms with the auction's schedule. It also synchronizes any employee additions or removals made to the scheduling period with the auction's shift bidder list. This field specifies the repeat interval for the shift bidding background task.
- **Count Only Time Off Activities With Allotment Towards Organization Allotment**—Only activities that have the **Time Off With Allotment** flag checked within Forecasting and Scheduling's **Activities** module's **Activities** tab are counted towards allotment. Any activities that have **Time Off With Allotment** unchecked are not counted towards allocation hours nor will the validation alert (Organization has available time off hours) be shown for time-offrequests of such activities. If the flag is unchecked, all activities irrespective of their setting of the **Time Off With Allotment** flag are counted towards allotment. The alert will also be shown for such activity if it exceeds the organization's allotment hours.
- **Enable Time Off Waitlists:** Waitlists are used in request management. Agent requests that have been denied can be waitlisted, in case an employee withdraws a request that has already been approved. The processing needed for waitlists can be high, so this feature is disabled by default.
- **Time Off Requests Types Enabled:** Allows you to select which types of time-off request processing can be used:
  - **Use my time-off hours to schedule my absence**
  - **Schedule around my time-off request if possible**
  - **Both**

  See "Managing Time Off" (page 117) for more information on these types of time-off request processing.

### Quality Monitoring

Set parameters for the default timeout for recording interactions:

- **Interaction Recording Timeout (minutes)**—Specifies the timeout duration for recordings in minutes. The default in 10 minutes. A background process runs every 5 minutes and stops all recordings that have exceeded this setting.



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### System Integration

Set parameters for the separately licensed integrations to Learning:

- **Application Analysis URL**—Specifies the URL entry-point to Application Analysis.

### Activity Display Names for Desktop Monitoring

If you are licensed for Desktop Monitoring, you can set the names of the Actual and Desktop activity lines for the **Adherence** screen:

- **Primary Activity Display Name:** Specifies the display name of the actual line on the **Adherence** screen.
- **Secondary Activity Display Name:** Specifies the display name of the desktop activity line on the **Adherence** screen. This item is only displayed for Desktop Monitoring licenses.

### EM General Configuration

If you are licensed for Enterprise Manager, this section allows you to enable recorders to be controlled by more than one Integration Server, for fail-over.

- **Enable Clustered Integration Services:** Enables the recorders to be controlled by more than one Integration Server, hence will support N+1 IP Failover, because the single recorder is controlled by both Primary and Secondary Integration Servers.

### EM Alarm Collection

If you are licensed for Enterprise Manager, this section allows you to set parameters for allowing the collection of alarm data from each Recorder Manager installation in the enterprise. Alarm data can be collected from each Recorder Manager on a recurring basis, such as every 60 seconds, and updates the Enterprise Manager.

- **HTTP Connection Factory Timeout (milliseconds):** Specify the amount of time in milliseconds to wait for the connection factory to return an HTTP connection. The default is 5000.
- **HTTP Connection Timeout (milliseconds):** Specify the amount of time in milliseconds to wait for a connection from the HTTP server. The default is 5000.
- **HTTP Socket Timeout (milliseconds):** Specify the number of milliseconds to wait for data to arrive from the server. The default is 10000.
- **HTTP Max Connections:** Specify the maximum number of open HTTP connections for the adapter.
- **HTTP Max Connections Per Host:** Specify the maximum number of open connections per host. The default is 2.



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- **Maximum Number of Threads:** Specify the maximum number of threads available to send Recorder Manager (RM) requests. Since each request to an RM is done on a separate thread, this number is the maximum number of concurrent RM requests. The default is 10.
- **Minimum Number of Threads:** Specify the minimum number of threads available to send RM requests. The default is 1.
- **Thread Execution Delay (milliseconds):** Choose the delay time (in milliseconds) between a thread completing the execution of a task and starting the execution of a new task. Valid values are 0,50,150,200,250, or 300; the default is 150.
- **Polling Enabled:** Click this checkbox to enable polling each RM for its alarm status. The default is enabled.
- **Polling Interval (milliseconds):** Choose the interval in milliseconds to poll each RM for its alarm status. Valid values are 30000, 60000, 90000, or 120000. The default is 30000.

### EM Reliable Messaging

If you are licensed for Enterprise Manager, this section allows you to set parameters for allowing the sending of messages to installations in the enterprise such as Recorders, Viewers, and Analyzers.

- **HTTP Connection Factory Timeout (milliseconds):** Specify the number of milliseconds to wait for the connection factory to return an HTTP connection. The default is 5000.
- **HTTP Connection Timeout (milliseconds):** Specify the number of milliseconds to wait for a connection from the HTTP server.
- **HTTP Socket Timeout (milliseconds):** Specify the number of milliseconds to wait for data to arrive from server. The default is 100.
- **HTTP Max Connections:** Specify the maximum number of open HTTP connections for the adapter.
- **HTTP Max Connections Per Host:** Specify the maximum number of open connections per host. The default is 2.
- **Maximum Number of Threads:** Specify the maximum number of threads available to send Recorder Manager (RM) requests. Since each request is done on a separate thread, this number is the maximum number of concurrent RM requests. The default is 10.
- **Minimum Number of Threads:** Specify the minimum number of threads available to send RM requests. The default is 1.
- **Thread Execution Delay (milliseconds):** Choose the delay time (in milliseconds) between a thread completing the execution of a task and starting the execution of a new task. Valid values are 0,50,150,200,250, or 300. The default is 150.



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- **Message Data Purge Interval (days):** Specify the interval to check for message data that should be deleted (in days). The default is 1.
- **Message Job Purge Interval (days):** Specify the interval to check for message jobs that should be deleted (in days). The default is 1.
- **Message Job Age (days):** Specify the age of the message job (in days) before it can be deleted. Any message job older than the number of days and that is completed is purged from the database. The default is 1.
- **Scheduled Job Timer Interval (milliseconds):** Specify the interval (in milliseconds) used to check for jobs that have been scheduled and are ready to be sent. The default is 60000.
- **Viewer Web Server Timeout (milliseconds):** Type the amount of time in milliseconds that the adapter waits for a message to be processed by a Viewer. Once this amount of time has passed, the adapter considers the message failed and re-attempts on the next interval. The default is 300000.
- **Client Timeout (milliseconds):** Type the amount of time in milliseconds that the adapter waits before timing out a client request from Enterprise Manager. This value is used to prevent unresponsiveness while the adapter is processing large configuration messages. Once a time out has occurred, the Configuration Status screen displays the status of the message. The default is 15000.

### EM SQL Server Express Job Schedules

If you are licensed for Enterprise Manager, and are using a SQL Server Express database, you can use this container to specify the schedules for database-specific jobs. These settings are ignored if any other edition of SQL Server is running.

- **Schedule for DB Cleanup Job:** The schedule to run this job. It is installed to run every day at midnight.
- **Schedule for DB Growth Job:** The schedule to run this job. It is installed to run at 12:30 am on the last Sunday of every month.
- **Schedule for DB Optimize Indexes Job:** The schedule to run this job. It is installed to run at 01:30 am on the last Sunday of every month.

Schedules are entered using a range of specified values and some characters with special meanings, as described in the following two tables:

| Field Name | Allowed Values | Allowed Special Characters |
|---|---|---|
| Seconds | 0-59 | **, - * /** |
| Minutes | 0-59 | **, - * /** |
| Hours | 0-23 | **, - * /** |



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| Field Name | Allowed Values | Allowed Special Characters |
|---|---|---|
| Day-of-month | 1-31 | **, - * ? / L W C** |
| Month | 1-12 or JAN-DEC | **, - * /** |
| Day-of-week | 1-7 or SUN-SAT | **, - * ? / L C #** |

| Special Character | Usage |
|---|---|
| ***** | Used to specify all values. For example, ***** in the **Minutes** field means every minute. |
| **?** | Is allowed for the day-of-month and day-of-week fields. It is used to specify no specific value. This is useful when you need to specify something in one of the two fields, but not the other. See the examples below for clarification. |
| **-** | Is used to specify ranges For example, **10-12** in the **Hours** field means the hours 10, 11, and 12. |
| **,** | Is used to specify additional values. For example **MON,WED,FRI** in the **Day-of-week** field means the days Monday, Wednesday, and Friday. |
| **/** | Is used to specify increments. For example:<br>• **0/15** in the **Seconds** field means the seconds 0, 15, 30, and 45.<br>• **5/15** in the **Seconds** field means the seconds 5, 20, 35, and 50.<br><br>You can also specify **/** after the ***** character; in this case, ***** is equivalent to having 0 before the **/**. |
| **L** | Is allowed for the **Day-of-month** and **Day-of-week** fields. This character is short-hand for **last**, but it has a different meaning in each of the two fields.<br>For example, the value **L** in the **Day-of-month** field means the last day of the month, that is, day 31 for January, day 28 for February on non-leap years, and so forth. If used in the **Day-of-week** field by itself, it means **7** or **SAT**. But if used in the **Day-of-week** field after another value, it means the last xxx day of the month. For example **6L** means the last Friday of the month. When using the **L** option, it is important not to specify lists, or ranges of values, as you will get confusing results. |


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| Special Character | Usage |
|---|---|
| **W** | Is allowed for the **Day-of-month** field. This character is used to specify the weekday (Monday-Friday) nearest the given day. As an example, if you were to specify **15W** as the value for the day-of-month field, the meaning is the nearest weekday to the 15th of the month. So, if the 15th is a Saturday, the trigger will fire on Friday the 14th. If the 15th is a Sunday, the trigger will fire on Monday the 16th. If the 15th is a Tuesday, then the trigger will fire on Tuesday the 15th.<br>However if you specify **1W** as the value for **Day-of-month**, and the 1st is a Saturday, the trigger will fire on Monday the 3rd; it will not jump over the boundary of a month's days. The **W** character can only be specified when the **Day-of-month** field specifies a single day, not a range or list of days.<br>***Note:*** The **L** and **W** characters can be combined for the **Day-of-month** expression to yield **LW**, which translates to last weekday of the month. |
| # | Is allowed for the **Day-of-week** field. This character is used to specify the **n**th **XXX** day of the month. For example, the value of **6#3** in the **Day-of-week** field means the third Friday of the month (day 6 = Friday and **#3** = the 3rd one in the month). Other examples:<br>• **2#1** = the first Monday of the month<br>• **4#5** = the fifth Wednesday of the month<br>***Note:*** If you specify **#5** and there are not five of the given day of the week in the month, no firing will occur that month. |
| **C** | Is allowed for the **Day-of-month** and **Day-of-week** fields. This character is short-hand for calendar. This means that values are calculated against the associated calendar, if any. If no calendar is associated, then **C** is equivalent to having an all-inclusive calendar. A value of **5C** in the **Day-of-month** field means the first day included by the calendar on or after the 5th. A value of **1C** in the **Day-of-week** field means the first day included by the calendar on or after Sunday. |

***Note:*** The allowed special characters and the names of months and days of the week are not case-sensitive.

The following table shows some examples of schedule expressions:


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| Expression | Meaning |
|---|---|
| **0 0 12 * * ?** | Fire at 12 p.m. (noon) every day. |
| **0 15 10 ? * *** | Fire at 10:15 a.m. every day. |
| **0 15 10 * * ?** | Fire at 10:15 a.m. every day. |
| **0 15 10 * * ? *** | Fire at 10:15 a.m. every day. |
| **0 15 10 * * ? 2005** | Fire at 10:15 a.m. every day during the year 2005. |
| **0 * 14 * * ?** | Fire every minute, starting at 2 p.m. and ending at 2:59 p.m., every day. |
| **0 0/5 14 * * ?** | Fire every five minutes, starting at 2 p.m. and ending at 2:55 p.m., every day. |
| **0 0/5 14,18 * * ?** | Fire every five minutes, starting at 2 p.m. and ending at 2:55 p.m., AND fire every five minutes, starting at 6 p.m. and ending at 6:55 p.m., every day. |
| **0 0-5 14 * * ?** | Fire every minute starting at 2 p.m. and ending at 2:05 p.m., every day. |
| **0 10,44 14 ? 3 WED** | Fire at 2:10 p.m. and at 2:44 p.m. every Wednesday in the month of March. |
| **0 15 10 ? * MON-FRI** | Fire at 10:15 a.m. every Monday, Tuesday, Wednesday, Thursday, and Friday. |
| **0 15 10 15 * ?** | Fire at 10:15 a.m. on the 15th day of every month. |
| **0 15 10 L * ?** | Fire at 10:15 a.m. on the last day of every month. |
| **0 15 10 ? * 6L** | Fire at 10:15 a.m. on the last Friday of every month. |
| **0 15 10 ? * 6L** | Fire at 10:15 a.m. on the last Friday of every month. |
| **0 15 10 ? * 6#3** | Fire at 10:15 a.m. on the third Friday of every month. |

**ATTENTION**

Pay special attention to the effects of **?** and ***** in the **Day-of-week** and **Day-of-month** fields.

### eLearning Settings

Only shown if you are licensed for eLearning.

- **Assign Lessons No More Than Once Every (days):** Allows you to specify the frequency with which lessons are assigned.

## Viewing an Audit Trail

Use the **Audit Viewer** side-bar element to configure search criteria for querying audit trail entries. The search criteria are used to filter the audit trail entries.



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The following table lists the audit modules and the actions that can be audited for each module:

| Module | Action |
|---|---|
| **Audit Trail** | **Query Audit Trail** |
| **Employee** | **Create**<br>**Delete**<br>**Terminate**<br>**Update** |
| **Publishing** | **Publish**<br>**Unpublish** |
| **Report Framework** | **Create Adhoc Report**<br>**Create Report Request**<br>**Delete Adhoc Report**<br>**Delete Report Instance**<br>**Delete Report Request**<br>**Deploy Custom Report**<br>**Edit Adhoc Report**<br>**Run Report Now**<br>**Run Report Trimmer**<br>**Set Access Rights**<br>**Undeploy Custom Report**<br>**View Adhoc Report**<br>**View Report Instance** |
| **Scheduling** | **Create**<br>**Delete**<br>**Update** |
| **Security** | **Change Password**<br>**Login**<br>**Logout** |
| **Security - Role** | **Security Assignment** |
| **Security: Access Rights** | **Security Assignment** |
| **Security: Role - Scoped Privilege** | **Security Assignment** |
| **Security: Role - Secure Fields** | **Security Assignment** |
| **Security: User** | **Change User Status**<br>**Create**<br>**Delete**<br>**Update** |
| **Time Record** | **Create**<br>**Delete**<br>**Update** |



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Leaving all form fields as they are (without giving any values) when the page loaded and clicking **View** at the bottom of the page returns all audit entries, up to a maximum of 500 entries per query.

The fields consist of the attributes of an audit entry:

| Field | Description |
|---|---|
| **Actor (User Name)** | The user name of the person who performed the action. |
| **Module** | The name of the software module where the action occurred (for example, **Security**). This value is set using a drop-down menu. (Module here does not refer to the Nortel Workforce Management top-level modules, such as **App Admin**.) |
| **Action** | The name of the auditable action (for example, **Change Password**). This value is set using a drop-down menu. |
| **Object Name** | The name of the object that was updated. This value depends on the audit entry action. For some actions, such as **Change Password**, the object name is the name of the user whose password was changed. |
| **Time of Event** | The time when the event/action occurred. This value can be set using a a Date and Time range selector. |
| **Impact Time Frame** | The time frame where the change will be impacted. This value can be set using a Date and Time range selector. |
| **Short Detail** | Displays a short text description of the audit record; if a record does not contain any details, the related field in the **Short Detail** column is blank. |

To view the details for a row in the list, either double-click the row or select the row and click **View Details**.

You can select the columns to be displayed on this page using the drop-down **Customize** menu to choose any previously saved configurations or you can create a configuration by choosing the **Edit** option from the drop-down menu.

As for other pages in the web application, you can control the number of entries shown on the page using the pagination controls at the bottom of the page. The default number of entries shown is 20.



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You can return to the **Audit Viewer Configuration** page by clicking **Configure**.

Click **Restart** to rerun the last query again and display the first page of the results.

This button is provided for your convenience, enabling you to rerun the last query for updated results without having to navigate back to the **Audit Viewer Configuration** page.

Depending on the values you supply for the audit fields, you could:

- Show all audits from user **admin**
- Show audits from any user to employee **John Smith** in the last week
- Show all audits from any user to the Jan 1 - Jan 7th schedule of Employee **John Smith**

## The Version Section

The **Version** section consists of three containers:

- **EAR File Version String**
- **Database Version**
- **Reports Version**

The version and schema information displayed on this page can be helpful to Technical Support in diagnosing and resolving problems you might encounter.

## Using the Alerts Setup Section

The **Alerts Setup** section allows you to configure parameters for alerts in the Nortel Workforce Management. It consists of the following side-bar elements:

- **General Settings**
- **Mail Settings**
- **Pop-up Settings**

### General Settings

This side-bar element (shown above) sets configuration parameters for the Scheduled Alerts Jobs subsystem of Workforce Management. It contains the following parameters:

- **Times to retry before de-activating job**—Specifies the number of times the system should retry sending the alert before the job is deactivated or cancelled.



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- **Time interval for re-activating job (in hours)**—Specifies the time interval (in hours) for re-activating any job that was previously deactivated.

### Mail Settings

This side-bar element sets e-mail configuration parameters for the Alerts subsystem of Workforce Management.

It contains the following parameters:

- **Outgoing mail (SMTP) host**—Specifies the name of the SMTP host used for outgoing mail.
- **Outgoing mail (SMTP) port**—Specifies the port used on the SMTP host for outgoing mail.
- **Return e-mail address**—Specifies the name of an administrative e-mail account. This account will show as the sender of alerts and also receives any e-mails that are returned as undeliverable (if, for instance, an e-mail address was incorrectly entered).
- **Authentication required**—If this checkbox is checked, authentication is required to access the (SMTP) host.
- **Username for authentication**—If authentication is required, specify the username (login name) here.
- **Password for authentication**—If authentication is required, specify the password (login password) here.

### Pop-up Settings

This side-bar element sets pop-up configuration parameters for the Alerts subsystem of Workforce Management.

It contains the following parameters:

- **Pop-up Server Domain**—Specifies the domain name of the host computer where the pop-up message server resides and its port number (defaults to 5060).
- **Suite Pop-up User**—Specifies the name of the sender of pop-up alerts (similar to the From field of e-mails and pop-up messages).

Click **Test Pop-up Session** to test the pop-up session parameters. The communication with the pop-up message server is tested. If the test is unsuccessful, an error message is displayed. In addition, an attempt is made to send a test pop-up alert, based on the parameters above, from the pop-up message server to the current user. A pop-up alert appears if the current user is configured to receive pop-up alerts. If this attempt does not succeed (after the communication test passed), no error message is displayed.



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Click **Save** to save the parameters.

Click **Revert** to revert back to the parameters' original values.



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# Configuring Training Mode

Workforce Management contains a training application server and database that can be used for initial and continuing training for end users of Forecasting and Scheduling and Workforce Management. This application server and associated database are installed on a different machine than the application server, and are completely separate from the production application server and database that are used for the activity tracking and adherence functionality of the contact center. The training database contains sample organizations, employee records, schedule data, reports, and adherence data.

This appendix explains how to access the training database for use with Workforce Management, the information contained in it, and how to reset any information changed during training back to its original state.

## How to Access Training Mode

Just as you access the production mode database, you access the training mode database using a specific URL. This URL typically differs from the production mode URL only by a few characters.

> ***Note:*** Users need to make certain that they are accessing the correct mode before changing data. Identifying that one is in the training mode database is usually quite simple, because the names of the employees in the Training mode are different from the names of the real employees in the Production mode.

For example, the URL of the Production mode should resemble the following:

**http://<myappserverhostname>:7001/wfo/**

where **<myappserverhostname>** is the name of the application server that the production mode is using to access the production database.

The Training mode URL will typically be very similar, such as:

**http://<myappserverhostname>:8001/wfo/**



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where **<myappserverhostname>** is the name of the application server that the training mode is using to access the training database.

It is suggested that you have your users create a shortcut to this URL on the desktop, so they will not need to enter the URL from memory.

## Information Contained in the Training Mode Database

The Training mode provides a representative environment that end users can use to meet the training objectives of the Workforce Management Agent role and Manager role courses (as well as the Scheduler role). The Training mode contains one root organization, 12 suborganizations (three in each of the four major U.S. timezones), and 12 campaigns:

**Nortel Training**
- **Eastern**
  - **EST-01**
  - **EST-02**
  - **EST-03**
- **Central**
  - **EST-01**
  - **EST-02**
  - **EST-03**
- **Mountain**
  - **MST-01**
  - **MST-02**
  - **MST-03**
- **Pacific**
  - **PST-01**
  - **PST-02**
  - **PST-03**

**Nortel Training** is the parent organization that contains all of the activity information that rolls down to the children organizations.

The four regional organizations (**Pacific**, **Western**, **Eastern**, and **Central**) contain employee information.

- All organizations contain 40 seats: 30 are agents; ten are Center Supervisors.
- The day boundary is 12:00 AM.
- All organizations are open Monday through Friday only, 8:00 AM through 6:30 PM in their respective time zones
- All the organizations take the defaults for **Minimum time between shifts** (00:00), and **Maximum consecutive workdays to schedule** (seven).
- Ten administrative accounts exist at the top level of the organization.
- Each of the four regional organizations has ten schedulers.



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Please see the documents available for each organization from the Product Training Department to get a complete listing of employees, usernames, and passwords.

There is also available a subset of those reports available in the Production mode of Workforce Management. Any of these reports may be run using the organizations listed above to produce sample reports.

## Uploading the Training Database Information to Restore Data to its Original State

The Training mode comes with the ability to upload initially all of the seeded employee data, time records, and adherence information or reload this information to restore the database to the original state it was in before a training course. This process uses a servlet to restore the original data back to the database.

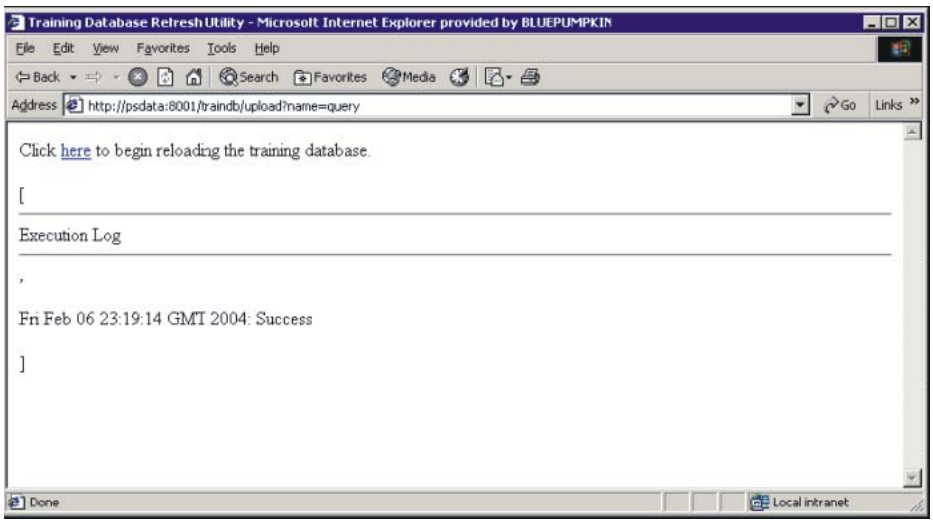
Typing a specific URL into any web browser on the company's intranet runs this servlet. This URL is usually in the following format:

**http://myappserverhostname:8001/traindb/**

(The above URL is an example of one used for a WebLogic application server; see your system administrator for the actual URL needed.)

***Note:*** This upload process should only be accomplished through an administrator because this upload process is for the entire training database. You cannot upload a specific organization.

The browser will display a window similar to the following:




To upload the training database



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| Step | Action |
|---|---|
| 1 | Click the word **here** in the screen displayed above.<br><br>After about 10 seconds, your browser will automatically refresh, and you will see the elapsed time as well as a list of the most recent SQL statements from in the browser.<br><br>You many open another browser window and visit the URL **http://myappserverhostname:8001/traindb/** while the database is being populated; you will also see the elapsed time and SQL statements.<br><br>Once started you cannot cancel the reload process. The process takes at least 20 minutes to complete. The actual speed of the reload depends on your application server.<br><br>Once the database has finished, you should see the "click here to begin" message again. |
| 2 | Restart the application server. |
| 3 | Once the application server has restarted, log into the Workforce Management Training mode using any of the sample employee usernames and passwords to check the success of the upload. |

**—End—**

It is possible for the upload process to be scheduled using a program such as NT Scheduler. Remember that this upload will overwrite any changes to the database. For that reason, if you decide to schedule automatic uploads, this process should be done at times that will not interfere with training.



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# Using Integration Server Integration Packages

This chapter describes the integration packages and how to use them. This chapter contains the following major topics:


- "Integration Packages" (page 273)
- "Enabling Adapters" (page 274)
- "Integration Package Tabs" (page 275)


***Note:*** Descriptions of some adapters and interfaces are included in this chapter to provide basic information about how they work. Each adapter or interface, however, has its own guide or chapter in a vendor-specific guide. For detailed and/or specific information about prerequisites, setup, and configuration, please see the guide for the adapter or interface.

## Integration Packages

An Integration package is a set of integration components bundled together to act as a unit. One of the possible components in the integration package is an adapter. Together, these components accomplish the specific task that the package was designed to do. An integration package can be either generic or vendor-specific. Those that are generic are referred to as interfaces; those that are vendor-specific are referred to as adapters. Interfaces allow you to access data from ACDs and other data sources that are not covered by any of the existing adapters.

***Note:*** For the sake of convenience, this chapter uses the term adapter for both interfaces and adapters.

Integration Server includes preconfigured integration packages that are used to integrate Integration Server with vendor-specific call center hardware and software or other data sources. These include the packages described below. In addition, you can modify a preconfigured package to create a custom one, or create a custom package directly from the various components and adapters available in Integration Server.



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In general, the relationship among a package, its adapter, and its components is tree-like, as shown below:

**Package**
**Adapter**
**Component**

Most packages contain both an adapter and one or more components, but some packages, such as those that integrate with reporting packages from other vendors, do not contain an adapter. They only contain components.

In this guide, no significant distinction is made between an integration package and an adapter; both terms are used interchangeably.

## Enabling Adapters

This section describes the adapter types and explains how to enable an adapter.

When Integration Server is installed, all available adapters are also installed, but are not added to the system configuration.

During the initial installation and configuration process, the pre-installed adapters are added into Integration Server. You will typically not need to remove or add adapters, but for reference, the adapters are added, removed, and ordered as described in the chapter on using the System module in the *Workforce Management Administration Guide*.

You must acquire licenses to use each adapter. Contact your Nortel sales representative if you need a license.

### Adapter Types

The following section shows the various **types** of adapters and briefly how to set them up. Each adapter comes as part of an integration package that manages the adapter, including setting up the following operating parameters for each adapter.

- When and how often the adapter will run.
- The data source from which the adapter retrieves agent information.
- The database to which the information retrieved by the adapter will be sent.

Adapters generally fall into the following categories:

- **Generic**: Allow you to create your own integration package.
- **Time Collection** (also known as RTAA): Allows you to import real-time agent adherence data into the Impact 360 database.



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- **Historical Time Collection** (also known as HAA): Allows you to import historical agent adherence data into the Impact 360 database.
- **Scorecards**: A set of adapters that extract source measure data from the Scorecards data sources, populates the Scorecards data warehouse, and performs calculations to derive the Key Performance Indicator (KPI) data.
- **Direct Contact Statistics** (DCS): Allows you to import direct contact statistics into the Impact 360 database.
- **Agent Sync**: Allows you to import agent information (such as Name, Contact information, etc) from an external source.

## Integration Package Tabs

The following section describes the tabs in a typical adapter manager package. The example used here is based on both the Nortel – ACSM for CCMS and Nortel – CSI for Symposium interfaces. Integration packages are configurable by those with administrator privileges.

> ***Note:*** The preconfigured package for a specified vendor may not work for all hardware and software versions, configurations, and implementations supported by that vendor. You may need to modify the integration package to match the specific implementation of the ACD or other data source.

This section only discusses the top-level controls. For detailed information on the lower-level controls, refer to the online help which you can access by clicking Help while you are at the top level of the individual tabs.

### The Monitor Tab

The following illustration shows the **Monitor** tab when you select the Nortel – ACSM for CCMS package. The controls for this tab are described in the following table.

| Item | Description |
|---|---|
| **Nortel – ASCM for CCMS status** | The scrollable area in this container shows the dates and times of the changes made to the server. |
| **Stop/Start** | The **Stop/Start** button is used to halt or restart the process of the selected integration component. Click on the button to stop the process. When the process is stopped a red “stop” icon appears on the left of the screen in line with the process, and the legend on the button changes to **Start**. You can independently stop or start any integration package. |



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| Item | Description |
|---|---|
| **Import Now** | This button is used to trigger the adapter on demand. |
| **Nortel – ASCM for CCMS status** | Each of the components of the package are listed, with a scrollable area showing the timestamps for events related to the components of the integration package. |
| **Status Light** | A status light appears to the left of the server or a package. If a red or yellow light is displayed, go to the log and read the message to determine the cause. A red light means that the latest status message shows an error. A yellow light means that there has been an error within the last ten messages. The status light will turn green when there is no error in the last ten messages. |

## The Configure Tab

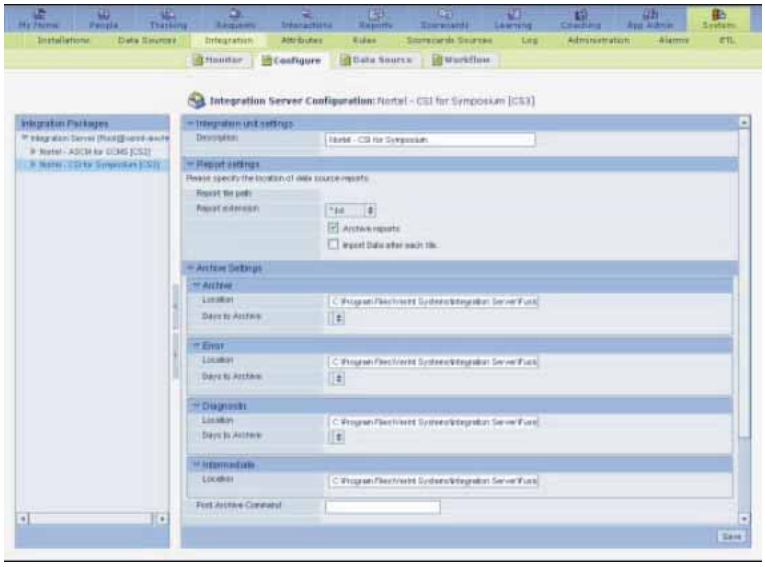
The **Configure** tab for the Nortel – ASCM for CCMS status package is shown below. Its top-level controls are described in the following table.

| Item | Description |
|---|---|
| Integration unit settings - Description | This field contains the user-specified name of the integration package. |
| Report settings | This container shows the various configurable keys associated with the reports used by this package. |
| Archive settings | This container allows you to specify if any command needs to be executed at the end of report file processing. Also, for each report class (**Archive**, **Error**, **Diagnostic**, and **Intermediate**), you can specify the location of the report files. You can also specify for each of these, except **Intermediate**, the number of days to archive the reports. |
| Advanced Configuration | Do not change any of the settings in this container unless you are so instructed by Nortel Technical Support. |

To contrast, the **Configure** tab for the Nortel – CSI for Symposium interface is shown below:



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## The Data Source Tab

The **Data Source** tab is available only at the integration package level and only for certain types of integration packages or adapter managers. You use this tab to select the data sources (ACD or other integration source). The table below describes the components of this tab.

| Item | Description |
|---|---|
| **Configure data Source** | This container lists in one column the Available Data Sources and in the second column the Selected Data Sources. You can select one or more data sources for the selected adapter and move them into or out of the Selected Data Sources list using the arrow buttons. The data source names also the time zone of the source as well as a description of the source. The source can be an ACD, CTI server, report server, HR, etc. |

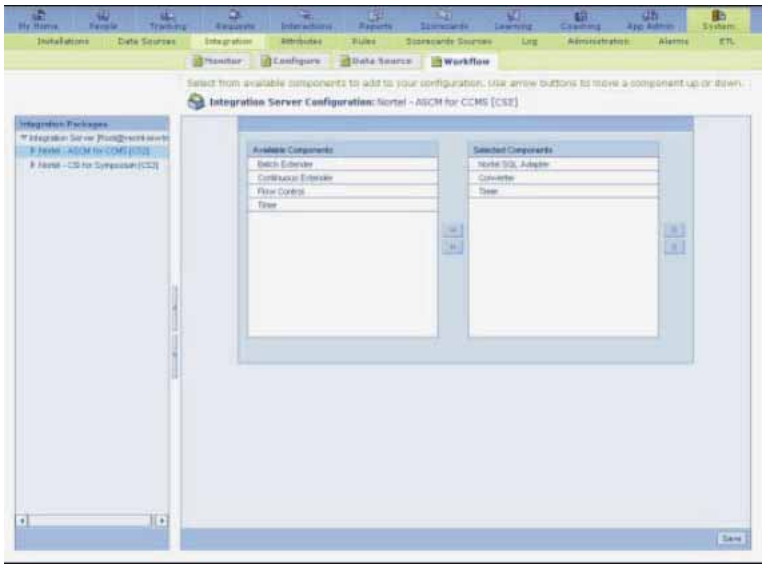
## The Workflow Tab

The **Workflow** tab allows the integration package to execute according to a timer, continuously, or after another package, using the package's Flow Control component. Most integration packages are configured with the appropriate workflow by default. The workflow tab for an integration package contains two listboxes as shown here. These are described in the table



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following the illustration. Packages, depending on their type, can contain one or more components, such a timer or a converter. The component types are discussed in "Components" (page 278).



| Item | Description |
|---|---|
| **Available Packages** | Lists the available integration packages that you can select to build an integration package. |
| **Selected Packages** | Lists the integration components for the currently selected integration package. |

Use the arrows between the list of available and selected packages to add or remove packages. Use the up and down arrows to the right of the list of selected packages to reorder the components, and thus, the workflow. Select a component and press the desired arrow to move the component up or down as needed.

## Components

Integration packages can contain any of the following integration components:

- "Adapter" (page 279)
- "Batch Extender" (page 279)
- "Continuous Extender" (page 281)
- "Converter" (page 282)
- "Flow Control" (page 285)
- "Timer" (page 286)



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## Adapter

As mentioned in the section Package, integration packages that extract data from reports generated by vendors' software, such as the Generic Report - DCS package, do not have an adapter as one of the components. For other packages, the adapter component (formerly known as a plug-in) is an active component in the transfer of data from the data source, such as an ACD, into the Impact 360 database.

Adapters are configured and controlled using one or two tabs, depending on their individual requirements. Those tabs are:

- **Custom Reports** (used only by certain DCS adapters)
- **Configure**

**The Custom Reports Tab** Although the Timer component usually triggers the DCS process, you can also trigger this process using the **Custom Reports** tab of the adapter component. On this tab you can specify the date and time interval for which agent events are needed, and start the DCS process.

You can retrieve data for:

- Single reports

  When you choose this option, the adapter will retrieve data for one interval, which is specified as a read-only parameter in the tab.

- Series of reports

  When you choose this option, the adapter retrieves data for multiple intervals. You need to specify both start and end date and time for retrieval.

Once you have specified your retrieval parameters, click Execute report to retrieve the data.

**The Configure Tab** The contents of the **Configure** tab vary according to the individual adapter's configuration requirements. Please refer the the user guide for the specific adapter for configuration instructions.

## Batch Extender

The Batch Extender component starts processes that perform a specified task and then exits. The process is triggered by the adapter manager. The component has one tab, the **Configure** tab. On this tab you set the command line to run the process and the maximum time to run. The timer component triggers the integration package which in turn, starts the batch extender which runs the process.



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When the Batch Extender completes, it sends a **Completed** indicator to Integration Server. If the Batch Extender fails, it sends a **Failed** indicator to Integration Server. In either case, the status is displayed on the **Monitor** tab of the package.

When the Batch Extender component times out and the process is still running, the Batch Extender it shuts down the process it is running and sends a **Failed** indicator to Integration Server, which displays it on the **Monitor** tab of the package.

To set up a batch extender:

| Step | Action |
|---|---|
| 1 | Select the integration package (a report importer package is used in this example), and select the **Workflow** tab. |
| 2 | In the **Available Packages** box, select the **Batch Extender** and copy it to the **Selected Packages** box as described in "The Workflow Tab" (page 277). |
| 3 | Click **Save**, wait for the changes to be made. |
| 4 | In the tree area, select the Batch Extender to display the **Configure** screen. |
| 5 | Select whether the adapter is local or remote:<br>• Choose **Local Adapter** if the Batch Extender is running on the same machine as the integration.<br>• Choose **Remote Adapter** if the Batch Extender is running remotely (on a different machine than the integration server), and enter a command in the command line field. If you use a DOS command in the Command Line field, you must begin your entry with **cmd /c**. Otherwise the command will not execute. |
| 6 | Set the batch time-out interval. |
| 7 | As desired, check the **Integration Server Adapter** checkbox to enable the adapter to communicate with Integration Server rather than run stand-alone. For more information about this, see "Using Adapter Mode and Non-Adapter (Stand Alone) Mode" (page 282). |

**—End—**



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## Continuous Extender

As its name implies, the Continuous Extender runs constantly until you stop it. This continuous operation is useful for driving components such as a time collection adapter, because you want the adapter to monitor a port on an ACD continuously, for example.

At the integration server level, the Continuous Extender runs external processes, such as third-party applications. It continuously monitors the application. If the application stops, Continuous Extender tries to restart it and informs you of this situation through Integration Server's logging system. Stopping a continuous process discards all data not already saved.

To configure a Continuous Extender, select it in the tree to display the **Configure** tab. Enter information in the appropriate fields as described in the table below and save the changes.

| Item | Description |
|---|---|
| **Description** | This field contains a brief description of the Continuous Extender. You can edit the default name to whatever is needed. |
| **Local Adapter/Remote Adapter** | Choose **Local Adapter** if the Batch Extender is running on the same machine as the integration server. Choose **Remote Adapter** if the Batch Extender is running remotely (on a different machine than the integration server). This enables the adapter to be remotely deployed and activated by a command line. Click on the Remote Adapter radio button and enter a command in the command line field. If you use a DOS command in the Command Line field, you must begin your entry with **cmd /c**. Otherwise the command will not execute. |
| **Time out (sec)** | Not used in the Continuous Extender (used for Batch Extender). |
| **Command Line** | Either type in the command line or select browse to enter the name of the file that contains the command. |
| **Working Directory** | Enter the full path name of the working directory. |
| **Integration Server Adapter** | To set the Adapter mode, click on the checkbox to display the checkmark. An application running in this mode must be able to support the Extender API to be able to communicate with Integration Server. |



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**Using Adapter Mode and Non-Adapter (Stand Alone) Mode** In stand-alone mode there is no communication between the application and Integration Server. In this case, Integration Server acts as a platform to execute the application or command and makes sure that it will always run. In stand-alone mode, however, the Extender monitors whether the process is running or not, and if the process fails, the Extender attempts to restart it.

When you run Extender as a adapter, Integration Server communicates with the application and can monitor the data and act on it as needed. To set the Extender to run as a adapter, simply check the box named **Integration Server Adapter** shown in the Configure screen.

## Converter

Converter is a configurable filter that converts the report file from the data source to a proprietary Nortel format and sends data to Importer, which then writes the statistics to the Workforce Management database.

The converter processes the report files and writes the statistics into the database. The report files are either generated by a DCS adapter or by a third-party application. You must set up the converter as needed to correctly read the data from the incoming report.

All pre-packaged integration packages have pre-defined converter configurations. You might not need to modify the configuration, unless you are building a custom package starting from generic packages.

The method of configuring Converter varies between two models:

1. You need to describe your incoming report format to enable Converter to process the fields correctly. See "Report Definition Configurations" (page 282).
2. You need to map individual fields from your incoming report to standard Workforce Management statistics fields. The mapping may be a direct one-to-one mapping or involve simple computations using report fields. See "Data Mapping Configurations" (page 283).

You can click **Show Report** to view a sample report to get the column start, width, or position for the report definition.

The controls for each of the above configuration models are described below.

**Report Definition Configurations** The incoming report can be have one of two formats:

1. Fixed-width report, where fields are present at fixed specified positions.
2. Delimited reports, where a continuous row contains fields separated by delimiters.



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The controls for describing the report format are given below.

These controls are present in the **Configure>Data Mapping** group box.

| Control | Description |
|---|---|
| **Default AHT Value** | Specify the value of AHT to be used when the call volume in the report is zero. |
| **Delimited Report** | Select this when importing reports whose fields are separated by characters such as commas or tabs. |
| **Fixed Width Report** | Select this choice to import reports whose fields are aligned in columns with spaces between fields. |
| **Field Delimiter** | This control is only displayed when you choose **Delimited Report**. Specify the delimiter character that separates the fields in your report. |
| **Column Name** | Enter the name of the column. |
| **Column Position** | This control is only displayed when you choose **Delimited Report**. Enter the position of the column in the report row. |
| **Data Type** | Specify the data type of the data in the column. |
| **Column Start** | This control is only available when you choose **Fixed Width Report**. Enter the starting position of the column in the report row. |
| **Column Width** | This control is only available when you choose **Fixed Width Report**. Enter the width of the column in the report row. |
| **Delete** | Click **Delete** to delete any of the column definition rows. |

**Data Mapping Configurations** In data mapping there is a"Basic Configuration" (page 284) where you need specify how to calculate standard Workforce Management statistics fields using your report fields. There is also an advanced configuration option that allows you to set additional filtering on your report fields. You can enforce Advanced settings on top of Basic settings. These options are available in the **Configure>Mapping Configuration** group box.

| Control | Description |
|---|---|
| **Basic** | Select this if you have to map incoming fields to statistics fields directly without additional filtering. |
| **Advanced** | Select this if you require additional filtering while mapping fields. |



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**Basic Configuration** Use this section to specify the mapping of the statistics fields:

| Control | Description |
|---|---|
| **Column Mapping** | Enter the mapping between fixed contact statistics fields and your report fields. |
| **Group** | Specify the column position or prefix of the line that represents the data source Group name, queue, or skill for which the data in the report was aggregated. |
| **Date** | The date area includes the **Position**, **Prefix**, and **Format** fields. Specify the column position and prefix of the line that represents the date for which the report was created. |
| **Time** | The fields in this area describe the column position and prefix of the line that represents the date for which the report was created. The **Prefix** field is enabled only when **ROW** is selected in the **Position** field. The **Start Time** checkbox indicates that the selected time is the starting time only. The **Interval** field indicates how often the report will be imported. |

**Advanced Configuration** Use this section to specify the advanced filtering:

| Control | Description |
|---|---|
| **Ignore Text** | Specifies text in the report file that is to be ignored and not processed. |
| **Ignore following first lines** | Specify the first **<n>** lines in the report to be ignored. |
| **Ignore lines with text** | The presence of the specified string in a line in the report causes that line to be ignored. |
| **Replace the text** | Enter a pair of text strings in the two fields to set up a search and replace operation. |

**Mapping Operations** After you configure the Converter settings, you can export the settings into an XML file to be used in the future. Similarly, you can import the settings from the XML file into this Converter instance. The controls for this purpose are present in the group box **Mapping Operations**.

| Control | Description |
|---|---|
| **Enable Export Operation** | Check this control to export the converter configuration into a specified file. The configuration is exported when you click **Save**. |



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| Control | Description |
|---|---|
| **File name to Export** | Specify the fully qualified location of the xml file to which to export the converter configuration. |
| **Enable Import Operation** | Check this control to import the converter configuration from a specified file. The configuration is imported when you click **Save**. |
| **File name to Import** | Specify the fully qualified location of the xml file that contains the Converter configuration you want to import into this package. |
| **Save** | Click **Save** to save the Converter configuration onto the Integration Server. |

**Importer Configuration** The Converter invokes the Importer after it parses and converts the report files successfully, this is the last phase of the entire Import operation.

Use this section to specify any additional parameters for importing data.

| Control | Description |
|---|---|
| **Create Groups** | Click this checkbox to automatically create groups when you import DCS reports. |

## Flow Control

The Flow Control package allows other integration packages you have configured on your server to execute in a specified order, essentially becoming part of a larger integration package. You can add a flow control package to any other integration package.

It contains the following controls:

| Control | Description |
|---|---|
| **Available Packages** | Lists the all integration packages configured on the server. |
| **Trigger Packages** | Lists the integration packages that you have currently selected to trigger as a part of this package. |
| Add/Remove buttons | Use these buttons to modify the list of selected Packages. |
| Move Up/Move Down buttons | Use these buttons to modify the order of execution of the selected packages. These are the same buttons described in "The Workflow Tab" (page 277). |



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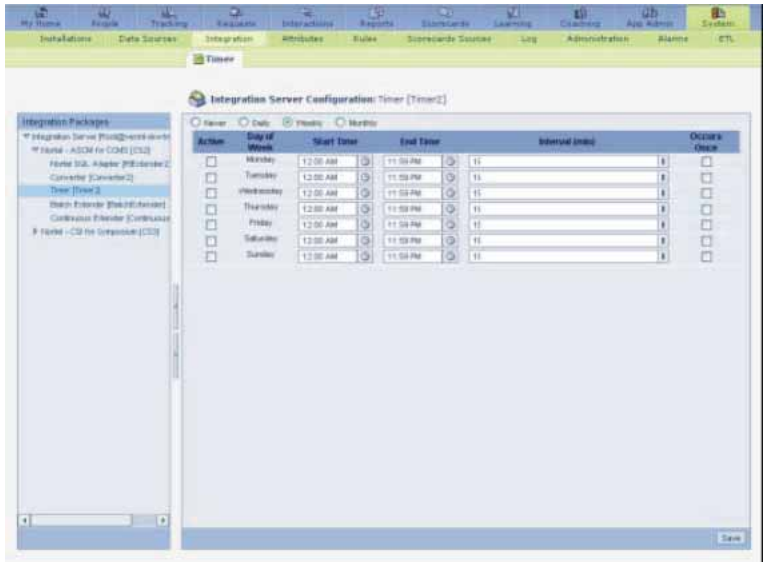
### Timer

The timer is used in several types of packages. It is the same for all packages. You can set the timer to **Never** (disabled/off) or to act on a monthly, weekly or daily basis.

- If you select **Never**, the Configure screen changes to a message screen that says **Timer is disabled**.
- If you select **Daily**, the following configuration screen is displayed. The table below describes the parameters.

| Item | Description |
|---|---|
| **Active** | Click on this checkbox to activate or deactivate the timer. |
| **Start Time** | Enter the time of day that you want the timer to start. |
| **End Time** | Enter the time of day that you want the timer to stop triggering. |
| **Interval** | Enter how often you want the timer to send a trigger to the report importing manager. The default is every 15 minutes. |
| **Occurs Once** | Click on this checkbox to set the timer to set the trigger only once each day. The End Time and **Interval** fields will be disabled, and the timer will run once at the specified start time. |

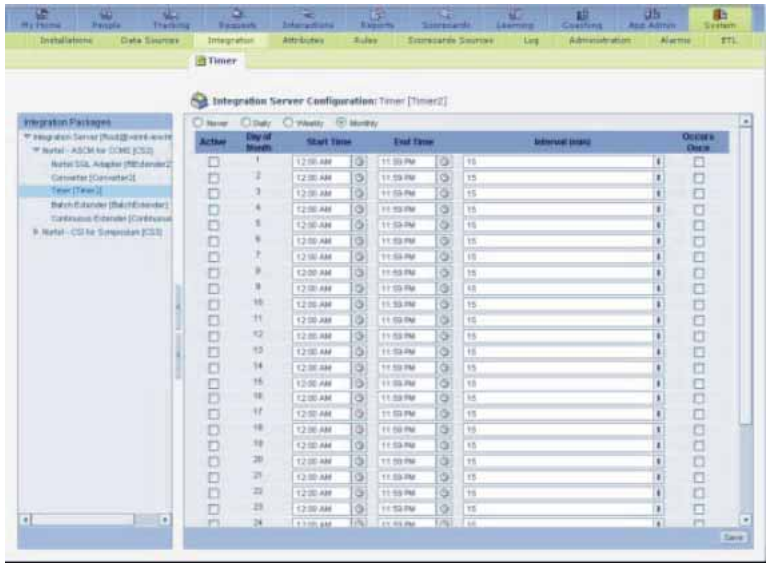
- If you select **Weekly**, the configuration screen changes to the display shown below. Click on the box next to the name of each day that you want the timer to operate. The settings for each day are the same as described in the previous table.





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- If you select **Monthly**, the configuration screen changes to the display shown below. Click on the box next to the number of the day of the month for which you want the timer to operate. The settings for each day are the same as described in the previous table.





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# Administering Forecasting and Scheduling

This chapter provides the Forecasting and Scheduling administrator with information about setting up and controlling access to Forecasting and Scheduling. It contains the following sections:

- "Starting and Logging Into Forecasting and Scheduling" (page 289)—Starting Forecasting and Scheduling; changing the default application server.
- "Managing Organizations and Users" (page 298)—Setting up the Administrator account, adding users and controlling access to organizations and campaigns, and to administrative functions.
- "Changing Forecasting and Schedulings Administrative Settings" (page 307)—Changing Forecasting and Scheduling's employee, skill, media type, activity type, and calendar display settings.

## Starting and Logging Into Forecasting and Scheduling

To start Forecasting and Scheduling:

| Step | Action |
|---|---|
| 1 | Double-click the Forecasting and Scheduling icon on your desktop, or click **Verint Systems > Forecasting and Scheduling > Forecasting and Scheduling** on the Windows **Start** menu.<br><br>The main **Forecasting and Scheduling** and **Login** windows appear. |
| 2 | Enter your user name and password in the **Login** window. The **Login** window is also available from the **File** menu.<br><br>***Note:*** If no user accounts have been created, please see your administrator for instructions. |
| 3 | Click an operation on the Forecasting and Scheduling Startup window.The following options are available: |



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- **Work on an Organization:** Open an existing organization or create a new one.
- **Work on a Campaign:** Open an existing campaign or create a new one.
- **Return to Last Activity:** Return to the activity you were working on when you last exited Forecasting and Scheduling.
- **Help:** Open Forecasting and Scheduling's online help.
- **Exit:** Quit Forecasting and Scheduling.

**—End—**

### Changing the Forecasting and Scheduling Application Server

When Forecasting and Scheduling is installed, you specify the application server it should connect to. When you log onto Forecasting and Scheduling, the application server's database is the database to which your Forecasting and Scheduling client automatically connects.

***Note:*** You can check the current server and database by selecting **About Forecasting and Scheduling** from the **Help** menu.

To change the Forecasting and Scheduling application server:

| Step | Action |
|---|---|
| **1** | Open the Forecasting and Scheduling login window by starting the program or, from the **File** menu, selecting **Close Work** and then selecting **Login**. |
| **2** | If you need to connect to a different application server, hold down the **Ctrl** and **Shift** keys and click on the **Login** window. The **Change App Server** window appears. |
| **3** | Type the new application server's name and port information and click **OK**. You are returned to the **Login** window to log onto the new database. |

**—End—**

## Getting Around in Forecasting and Scheduling

Forecasting and Scheduling provides two work modes:

- *Organization mode* lets you set up general information about your organization, its working hours, its employees, their availability, and their



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skills. It also provides an overview of the organization's schedule and activities and the ability to produce reports about the organization's activities. Further, you can create a hierarchy of organizations to reflect the structure of your contact centers.

- *Campaign mode* contains tools that let you forecast your workforce requirements for the scheduling period, set your service goals, and schedule employees from your organization to meet those requirements and goals.

Forecasting and Scheduling uses work modes to allow you enter data for your organization once and, at the same time, set up campaigns and schedule employees with appropriate skills and availability from throughout the organization. Only one work mode is active at any time. Each mode contains several modules for different functions. These modules are arranged so that you can use them sequentially.

## Using the Forecasting and Scheduling Window

This section explains how to navigate through Forecasting and Scheduling and how to enter data in its modules.

***Note:*** Press **F5** to refresh Forecasting and Scheduling's display at any time.

The Forecasting and Scheduling Application window contains the following parts:

1. the Toolbar
2. the Module Bar
3. The Module Window
4. the Status Bar

### The Toolbar

The Forecasting and Scheduling toolbar is similar to that used in standard Microsoft applications. It can be moved to any position on your monitor by clicking on it and dragging it to the desired location. Holding your cursor over a toolbar button for a short time displays a description of the button. Some buttons are only displayed in those modules where their functions are active.

To display or hide the Forecasting and Scheduling Toolbar:

- On the **View** menu, click **Toolbar**.

  The Toolbar is toggled on or off.

**Toolbar Buttons** You can use the Forecasting and Scheduling Toolbar to perform the following functions:



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| | |
|---|---|
| | Work on an Organization. |
| | Work on a Campaign. |
| | Move to the previous module. |
| | Move to the next module. |
| | Print. |
| | Print Preview. |
| | Open a new Forecasting and Scheduling object—new employee, new shift, etc., or add items to a campaign. See "Using Grids" (page 295). |
| | Delete the object. |
| | Copy. |
| | Paste. |
| | Zoom in to show a single day. |
| | Zoom out to show several days. |
|   | Select the day of the week selector. Use the arrows to move forward or backward one day or choose a date from the drop-down window. See *Date Selectors*. |
| | Open the Nortel web site using your default internet web browser. |
| | Open the Forecasting and Scheduling Help system. |
| The following buttons appear only when their functions are active: | |
| | Sort in ascending order. |
| | Sort in descending order. |
| | Filter employees. |
| | List schedule conflicts |
| | Set up and start the scheduling process. |
| | Create a new calendar event. |
| | Analyze your schedule for conflicts |



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| | |
|---|---|
|  | Recalculate the service level and average speed to answer (ASA) statistics in a calendar. |
|  | Refresh the calendar data for all employees in the campaign or organization, depending on which mode you are in. |
|  | Display a legend for the calendar. |
|  | Display tool tip descriptions when the cursor hovers over a shift or event. |
|  | Display required and forecast levels for staffing and service level. |
|  | The Comparison tool provides a quick comparison of the predicted and required staffing and service level statistics. |
|  | Load a saved profile. |
|  | Save a profile. |
|  | Clear the current profile. |
|  | Restore the profile. |
|  | Scale contact information. |
|  | Scale Average Handle Time (AHT). |
|  | Enter shrinkage. |
|  | Display a table view of the graph. |
|  | Display the Full-Time Equivalent (FTE) calculator. |
|  | Publish the schedule. |
|  | Unpublish the schedule. |
|  | Revert to the last published schedule. |

## The Module Bar

The Module Bar contains icons for the modules in each Forecasting and Scheduling work mode. Forecasting and Scheduling's modes are designed to use a step-by-step approach. You should go through each module in



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sequence to set up your organization or campaign. Please refer to the *Workforce Management Schedulers Guide* for detailed information on the modules.

To navigate to a module, do one of the following:

- Click the module's icon on the Module Bar.
- Click the **Previous Module** or **Next Module** button on the Toolbar.
- Select the module from the **Go** menu.

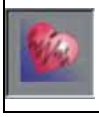
To display or hide the Forecasting and Scheduling Module bar:

- On the **View** menu, click **Module Bar**.

  The Module Bar is toggled on or off.

**Module Icons** The following icons are used to select modules in both Organization and Campaign modes. Icons appear to be indented when they are selected.

***Note:*** These modules have similar but distinct functionality in each work mode.

| | |
|---|---|
|  | **Operations** module. |
|  | **Activity** module. |
|  | **Work Rules** module. |
|  | **Employees** module. |
|   | **Calendar** module. |
|  | **Pulse** module. |

The following icons and modules are specific to the forecasting and scheduling process and are available only in Campaign mode:



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| | |
|---|---|
|  | **Forecast** module. |
|  | **Service Goals** module. |
|  | **Agent Requirements** module. (Not available when skills-based scheduling is used. See the *Workforce Management Schedulers Guide* for more detailed information.) |

### The Module Window

The Module window changes as each module is selected. See the *Workforce Management Schedulers Guide* for detailed descriptions of each Module window.

### The Status Bar

The Status Bar displays a brief help message and the time zone for the selected organization or campaign. It also indicates when you are in the What If or Examples mode.

To display or hide the Forecasting and Scheduling Status bar:

- On the **View** menu, click **Status Bar**.

  The Status Bar is toggled on or off.

## Entering Data in Forecasting and Scheduling

Forecasting and Scheduling uses standard Windows data entry methods. This section describes two methods you may not have used before—grids and calendars.

> ***Note:*** These methods are generally used for day-to-day data entry. Use Forecasting and Scheduling's import tools for entering large amounts of data, such as when you are first setting up Forecasting and Scheduling.

### Using Grids

Forecasting and Scheduling uses grids similar to those found in many Windows database applications to enter and display data.

To add a new row of data to a grid, do one of the following:

- Click the **New** button on the Toolbar. This takes you to the bottom row of the grid where you can enter your data.
- Click the first field in the empty row at the bottom of the grid. This row is marked with an asterisk (*****) in the row header.

To move between fields, press **Tab** or click a field with your mouse.



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The pencil icon indicates that a row is being edited. To save the data in the row, Tab to or click in a different row.

***Note:*** Data in Forecasting and Scheduling is saved immediately. If you want to manipulate your data without making permanent changes to it, use the What If mode. See the *Workforce Management Schedulers Guide* for information on the What If mode.

Some grid fields are used to select and link existing data such as shift activities. These are designated by a special ellipsis icon that appears when you move your cursor into the field. Click the icon to display a list of options for that field, and select the one you wish to use.

## Using Calendars

Forecasting and Scheduling uses two types of calendars:

**Date Selectors** Date selectors are used in several modules to select the active day or week (depending on the module). They are displayed when the drop-down date selector on the Toolbar is clicked or when creating a new scheduling period.

- To select a date in the current month, click on the date.
- To change months, click the arrow to the left or right of the name of the month, or click on the month and select from the list.
- To change years, click the year, then use the spinner to change the year.
- To return to the current date, click **Today** at the bottom of the calendar.

**Calendar Grids** Calendar grids are used to display shift assignments, employee vacations, breaks, meetings, and so forth. They are located in three modules:

- **Employee module**—one for each employee; displays scheduled activities for an entire week. In the Organization mode, you may move forward or backward in time as far as you wish. In the Campaign mode, only the current week can be displayed.
- **Organization Calendar**—schedules for all employees in the selected organization regardless of the campaign to which they are assigned. You may move forward or backward in time as far as you wish.
- **Campaign Calendar**—schedules for all employees in the selected campaign regardless of the organization to which they are assigned. You can only view dates for the current scheduling period, which can be up to six weeks long.

***Note:*** The data in all Forecasting and Scheduling calendars are linked. A change in any calendar is instantly reflected in all of the others.



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Use the date selector (see *Date Selectors*) to select the portion of the calendar grid you wish to display.

Activities are color coded. Hold the cursor over a time block for a short time to see an explanation of the code. Click **Legend** on the **View** menu or click **Settings** on the **File** menu to display a complete list.

# Changing Forecasting and Schedulings Settings

Forecasting and Scheduling allows you to make and change a number of settings that apply to the entire program. These are available regardless of the mode or module that is active.

## Time Zones

Forecasting and Scheduling lets you set up organizations and campaigns within different time zones—a time zone is entered when the organization or campaign is originally created. When the organization or campaign is opened, the time and date information for the time zone you entered is displayed regardless of your system's time zone. You can change the display time zone at any time and information about times and dates in other zones is automatically adjusted and correctly displayed. This feature is especially useful if you have contact centers in more than one time zone—you can quickly see the hours for each contact center displayed in its local time zone or in your own time zone.

For example, if your East Coast contact center is open from 6 A.M. to 7 P.M. EST, the display time zone is automatically set to Eastern time (regardless of the time zone your system time is set to) when the organization is opened.

If you are on the West Coast and want to see the hours your East Coast contact center is open in your time, set the display time zone to Pacific time.

***Note:*** You can only enter or modify time information when your display time zone is the same as the organization or campaign time zone. It is dimmed when your display time zone is different.

### Changing Your Display Time Zone

To change your display time zone:

| Step | Action |
|---|---|
| **1** | Double-click the time zone on the Status Bar. |
| **2** | Click the time zone you want to display, and then click **OK**.<br>All times and dates in the display reflect the new time zone. |

**—End—**



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You can leave the two time zones you use the most in this dialog box and switch quickly between them. You can also select other time zones as required.

***Note:*** Changing your display time zone does **not** affect your system time. It only affects the Forecasting and Scheduling display.

## Getting Help

Forecasting and Scheduling's online help system is available from each module and dialog box by pressing **F1**, clicking the **Help** icon, or from the **Help** menu.

## Managing Organizations and Users

Organizations and users can be created, edited, and deleted from within Forecasting and Scheduling. Assignment of access rights is then done within the Workforce Management. Detailed information on using Forecasting and Scheduling to create, edit, and delete users and organizations can be found in the *Workforce Management Schedulers Guide*. Some of that information is reproduced below for ease of reference.

### Opening or Adding Organizations

To open an existing organization:

| Step | Action |
|---|---|
| 1 | In the Forecasting and Scheduling Startup window, click **Work on an Organization**.<br>Or, on the Toolbar, click the **Organization** button.<br>The **Work on an Organization** window appears. |
| 2 | Click **+** to expand the tree to locate the organization. |
| 3 | Double-click the organization.<br>Or you can click the organization, and then click **Open**.<br>***Note:*** If **Open** is unavailable (appears dimmed), you might not have access to the organization. See your system administrator for access privileges. |

**—End—**

To add a new organization:



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| Step | Action |
|---|---|
| 1 | In the Forecasting and Scheduling Startup window, click **Work on an Organization**.<br>Or, on the Toolbar, click the **Organization** button.<br>The **Work on an Organization** window appears. |
| 2 | Click the parent organization of the one you are adding. |
| 3 | Click **New**.<br>The New Organization dialog box appears. |
| 4 | Type a name for the organization. |
| 5 | Select a time zone for this organization. |
| 6 | Select the day of the week on which the organization starts its work week. |
| 7 | Set the day boundary for the organization. This boundary is used to determine when the organization's work day begins and ends for scheduling purposes. If you have a 24-hour organization, this time determines the start and end times for your shifts. Employee shifts and schedules cannot cross this boundary unless the **Allow shift assignments to cross day boundary** check box in the **Advanced Options** group of the Organization mode Operations module is selected. |
| 8 | Click **OK** to add the new organization. |

**ATTENTION**
You cannot change the time zone, start day, and day boundary once you have created a shift or an employee for this organization.

**—End—**

To delete an existing organization:

| Step | Action |
|---|---|
| 1 | Close the organization if it is open. |
| 2 | Select the organization in the **Work on an Organization** window. |



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3 Click **Delete**, then click **Yes** to confirm. The organization and its contents are removed from the system.

**—End—**

To rename an organization:

| Step | Action |
|---|---|
| 1 | Open the organization. |
| 2 | In the **Operations** module of the new organization, type the new name in the **Name** field.<br>The new name appears in the **Work on an Organization** window. |

**—End—**

## Adding and Editing Employees

You can add employees directly to Forecasting and Scheduling or you can import a text file containing the employee data. You can also designate employees to be supervisors and/or team leads.

***Note:*** Employees should always be added at the lowest possible level.

To import employee data from a text file:

| Step | Action |
|---|---|
| 1 | While in the Organization work mode, click **Employees**. |
| 2 | On the **File** menu, click **Import**. The **Employee Import** dialog box appears. |
| 3 | Type the name of the file in **File to import**, or click **Browse** to locate it. |
| 4 | Select the delimiter used by the import file (tab, comma, or semicolon). |
| 5 | If the file contains non-essential data (header information, for example) at its beginning, type the number of lines the data occupies in **Number of lines to ignore at start of file**. |
| 6 | Select the fields you want to import, or click **Check All** to select all the fields. **First Name** and **Last Name** are mandatory fields and are always checked. |



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7 For each of the fields you have selected, type the column in which it appears in the import file.

If more than one item occupies the same column (**First Name** and **Last Name**, for example), type the same number for both items.

8 Click **OK** to begin the import.

**—End—**

## Import Specifications

When data contained in an imported field is inconsistent with its intended usage in Forecasting and Scheduling, Forecasting and Scheduling handles it in the following way:

- **First Name** and **Last Name**—These are required fields.
- **Employee type**—This is a required field. If the imported data contains an employee type not already present in the database, you are asked if you want to create a new type. If you click **No**, the record is skipped. If you click **Cancel**, the import is canceled.
- **Min hours/Max hours**—If the **Min hours** value is larger than the **Max hours** value, the values are made equal. For instance, if **Min hours** is 50 and **Max hours** is 40, they are both set to 40. If either value is greater than 100, the field is set to 0.
- **Organization**—If the import file specifies an organization different from the current active organization, and the organization exists in the Forecasting and Scheduling database, the employee is imported into the specified organization and not into the current organization. If the organization specified in the import file does not exist in the Forecasting and Scheduling database, the employee is imported into the current working organization.
- **Start date**—If there is an error in the Start date, it is changed to the current date.
- **End date**—If there is no End date, the system inserts the year 2079.

***Note:*** A log file titled **EmployeeImport.log** is created when you import employee data. If you have difficulty importing employees, open this file with any text editor and check for errors.

When you import employee data, Forecasting and Scheduling assumes that each data item has effective dates equal to the start and end date for the employee.



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To add an employee using the Employees grid:

- Click the ***** next to the row at the bottom of the grid or click the New button on the toolbar, and then enter data in each field.

  Or you can double-click anywhere in the empty row, and then fill in the **New Employee** dialog box.

  ***Note:*** If you are not authorized to view secure employee fields, they are crosshatched out.

## Editing and Deleting Employees

***Note:*** If you are adding or changing the same information for a group of employees, such as their organization or supervisor, select all the employees, hold the shift key down, and double-click the last employee selected to open the **Employee Details** dialog box and change the data.

To edit employee data:

| Step | Action |
|---|---|
| **1** | Click in the field you want to edit. |
| **2** | Type in the new data. |
| **3** | Click in a different row to save the data. |

**—End—**

To delete employee data:

- Select an employee, and then click the **Delete** button on the toolbar.

  When an employee is deleted, Forecasting and Scheduling sets the employee's End date to the current date. The employee appears on all past schedules but is not scheduled after the deletion date.

  ***Note:*** It is often quicker to delete employees if you select the **Work Patterns** tab at the bottom of the **Employee** module instead of the default **Calendar** tab.

### Effective Dates

The **Employee** module allows you to maintain historical information for some of its fields. On the employee grid, some of the items have a blue icon on the right side of their cell. This icon, which looks like a calendar, is the **Effective Dates** button. The button brings up a dialog box that displays all of the historical information for the field and any fields that share the effective date.



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The dialog box also provides three options:

- **Update value for current period** – Allows you to set a new value based on the effective date period of the current value displayed.

  ***Note:*** The value displayed is always based on the effective value on the first date of the Viewing Display Period, which is displayed on the tool bar at the top of the Forecasting and Scheduling window.

- **Insert value for period from** – Allows you to set a new value for the exact Viewing Display Period shown on the toolbar at the top of the Forecasting and Scheduling window.
- **Insert value from** – Allows you to set a new value from the first date of the Viewing Display Period through the end date of the employee.

The effective date dialog boxes are also available from the employee detailed dialog window. When you are editing more than one employee at a time (referred to as multi-editing), the effective date dialog box options display "**********" in place of the dates for option one. When you select this option, it still results in the new value being used for each individual employee's effective dates for the value valid on the first day of the Viewing Display Period. You cannot edit any of the fields if one or more are secure fields.

## Sorting and Filtering the Employee Grid

Forecasting and Scheduling lets you sort the information in the Employee grid by any column. It also lets you filter information to create subsets of employees.

To sort information in the Employee grid:

- Double-click the heading of the column you want to sort by. Double-click again to reverse the sort order.
- Or you can do the following:

  1. Click in a field in the column you want to sort by.
  2. From the **Employee** menu, select the sort order.

To create a subset of employees:

| Step | Action |
|---|---|
| 1 | From the **Employee** menu, select **Filter**. The **Employee Filter** dialog box appears.<br><br>***Note:*** In Organization mode, employees are always filtered by their Start Date and End Date (see below). To be displayed, an employee must have a Start Date on or before the last day in the current week (displayed in the date selector at the top of |



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the **Employees** module), and an End Date on or after the first day of the current week. In other words, the employee must have at least one day of active employment during the week to be displayed. Employees who do not meet these criteria will not be displayed, even if they meet all of the filter's criteria.

**2** Enter the information you want to filter by, and then click **OK**.

Remember that *all* fields in the Employee Filter dialog box containing data are used to create the subset.

**—End—**

To return to a full set of employees:

| Step | Action |
|---|---|
| **1** | From the **Employee** menu, select **Filter**. The **Employee Filter** dialog box appears. |
| **2** | Click **Clear All**, and then click **OK**. |

**—End—**

## Employee Grid Fields

The Employee grid contains the following fields:

- **First Name, M.I.** (middle initial)**, Last Name, Suffix—First Name** and **Last Name** are required fields. **M.I.** and **Suffix** are optional. The default names are **New** and **Employee**.
- **Birth Date—**Type the employee's date of birth.
- **Employee Type—**Select a type from the menu. Types are created in the **Employee Type** tab of the Settings dialog box. This is a required field. The default is the same type as the employee immediately above. If there is no employee above, the first type on the menu is used. Employee types determine the work patterns an employee is scheduled for.
- **Is Supervisor—**If the employee supervises other employees, click the checkbox to designate the employee as a supervisor. That employee is then added to the drop-down menu choices for Supervisor for other employees in the supervisor's organization and suborganizations. Supervisors can receive notifications about their employees and process their employees' requests. In addition, Team Rules created in the Assignment Rule module can refer to employees with the same



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supervisor or team lead (see next field) as a team. The **Supervisor** field is described below.

- **Is Team Lead—**If the employee is the team lead of other employees, click the checkbox to designate the employee as a team lead. That employee is then added to the drop-down menu choices for Team Lead for other employees in the team lead's organization and suborganizations. In addition, Team Rules created in the Assignment Rule module can refer to employees with the same supervisor or team lead as a team. The **Team Lead** field is described below.
- **Min paid hours, Max paid hours—**Type the minimum and maximum number of paid hours an employee can be scheduled each week. The default is **00:00**.

  An employee is always scheduled for at least the minimum hours and is never scheduled for more than the maximum. An employee with minimum hours of 0 might not be scheduled, depending on the employee's maximum hours and agent requirements. An employee with maximum hours of 0 is not scheduled.
- **Supervisor—**Choose a supervisor. If none is selected, the default setting is blank. See also **Is Supervisor** above.
- **Team Lead—**Choose a team lead. If none is selected, the default setting is blank. See also **Is Team Lead** above.
- **Organization—**Choose an organization. The default is the current organization.
- **Proficiency—**Classify employees' proficiency according to their average handle time. The default entry is **1.0**.

  Forecasting and Scheduling uses this number when scheduling agents. An agent with 1.0 has an average handle time, an agent with 2.0 takes twice as long, and an agent with 0.5 takes half as long to handle calls.
- **Rank—**Assign a rank to be used by the scheduler in determining employee preferences. The default entry is **1**.

  The lower the number, the higher the rank.
- **EMail, Pop-up Address, Address, Home Phone, Work Phone, Mobile Phone, Job Title, Tax ID (SSN), Wage—**Optional fields.
- **Start Date—**Enter the employee's start date. The default is today's date. The scheduling engine uses this seniority date in determining the effect of employee preferences.

  ***Note:*** An employee is not scheduled for a period that starts earlier than the start date—the date the employee's data is entered. To schedule an employee for an earlier period, make sure the employee's start date is earlier than the first day of the schedule.



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An employee with a start date later than the last day of the current week is not displayed.

- **End Date—**Enter the last date an employee worked for your organization. The default date is placed far into the future.

  Employees with end dates earlier than the current date are considered terminated and are not scheduled. Employees with end dates earlier than the first day of the current week are not displayed.

- **Employee ID—**Type the employee's internal ID number here.
- **Data Source IDs—**Click the button to open a list of Impact 360 data sources. Type the employee's data source identification used by the Adherence capabilities of Impact 360™ next to each data source. ******* will appear on the main grid when ACD IDs are assigned.
- **User 1, User 2, User 3...User 10—**Type any additional employee information in these fields. (Your administrator assigns names to the user fields in Impact 360™. A maximum of ten user fields are available. They must be assigned names in sequence starting with the first field. Those fields that have not been assigned a name are not visible in the employee grid.)
- **Preferred Start—**Select a block of time the employee prefers to begin work. This selection sets high preferences for the times in that period. Individual time preferences are set in the **Preferences** tab. These preferences are used when user-defined preferences cannot be met.
- **Max VTO Per Week, Max VTO Per Day, Max OT Per Week, Max OT Per Day—**If you have an Intra-Day Optimization license, you can view and set the the weekly and daily maximums for overtime and voluntary time off here.
- **OT Before Shift, OT After Shift, VTO at Shift Start, VTO at Shift End—**If you have an Intra-Day Optimization license, these columns show the employee's current preferences, as set in the web application's My Profile module, in the Schedule Preferences section. You can override the settings here.
- **Chat Sessions—**The number of concurrent chat sessions the employee can participate in.
- **Effective Date buttons—**The employee fields that have effective dates allow for two types of editing. If the date displayed is the correct period for which you want to set the new value, you can save your changes by clicking the **Apply** button or **OK** button at the bottom of the dialog box.

  To change the effective dates of one or more of the values, click the **Effective Dates** button (the calendar icon) next to the value(s) to be modified. The **Effective Dates** dialog box appears, allowing you to set the dates of the change along with the new value. This data is



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not actually saved until you click the **Apply** button or **OK** button at the bottom of the dialog box. (See "Effective Dates" (page 302) for more information on the **Effective Dates** dialog box.)

***Note:*** The Copy and Paste features apply to rows, not columns. That is, you can copy an employee and paste a copy in a new row, but you cannot copy the Preferred Start column and paste the data elsewhere.
The newly created employee will not transfer historical or future data from the employee being copied. Data values are based on the first date of the view period displayed on the toolbar. These are the same as the data values being displayed in the grid for the employee being copied. Also note that you must stay in the same view period between the time that you copy and paste the employee(s).

## Changing Forecasting and Schedulings Administrative Settings

Use the **Settings** module to check and configure media and contact types, the items and colors used in the calendars, employee types, and employee skill categories and descriptions.

***Note:*** The **Settings** module is only available if you are logged into Forecasting and Scheduling as an administrator.

To open the **Settings** module:

| Step | Action |
|---|---|
| 1 | On the File menu, click **Close Work**. |
| 2 | On the File menu, click **Settings**. |

**—End—**

Use the grid to add or change settings. To add or change a color, click the field and use the Windows color picker to make a new selection.

The **Settings** module contains three tabs:

- **Employee Types**—Lists types of employees. Forecasting and Scheduling contains six predefined employee types, which can be changed; additional types can be added as needed. **Employee Type** is a required field in the **Employee** module. It also appears in the **Work Patterns** tab of the **Work Rules** module, where it is used to determine the type of employee who is eligible to be assigned to a work pattern.

  ***Note:*** A **Supervisor/User** is an employee of an organization that has been assigned user privileges.



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- **Media Types**—Lists types of media for multiple contact centers and the time units they use for reference throughout the Workforce Management. For example, phone times, such as Average Speed to Answer, are measured in seconds, while email times are measured in minutes.
- **Skills**—Lists types of employee skills and an associated media type. Skill types are added to an employee in the **Skills** tab of the **Employee** module.


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# Appendix A
# System-Wide Maintenance

This appendix contains information on a variety of tasks related to the system-wide maintenance of Nortel Workforce Management. These tasks are typically not performed using the web application's interface. These tasks include:


- "Enabling Secure Socket Layers (SSL) Support" (page 309)
- "Security and Lightweight Directory Access Protocol (LDAP)" (page 312)
- "Database Backup Policies" (page 320)


## Enabling Secure Socket Layers (SSL) Support

Under Nortel Workforce Management, information is normally transferred as plain text between the application server and the browser. This information includes user names and passwords.

If this situation is a security concern for your site, you can selectively or "globally" enable the use of SSL to encrypt sensitive data such as passwords.

### Requirements

To enable SSL support:

| Step | Action |
|---|---|
| 1 | You need to obtain a valid permanent SSL Certificate. |
| 2 | The WebLogic application server needs to be configured to enable SSL.<br><br>The steps to configure WebLogic to support SSL are documented by BEA in the following document:<br><br>http://e-docs.bea.com/wls/docs81/secmanage/ssl.html#1178523 |

**—End—**



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## Enabling Selective SSL Support in Nortel Workforce Management

Because using SSL can impact performance, enabling selective SSL support in Nortel Workforce Management only affects screens identified to transfer sensitive data such as passwords. These screens include:

- Login
- Self Registration
- Password Change
- User Management (manage username and password)
- **My Profile** section
- **System** module, **Administration** section, **General** side-bar navigation element
- **Mail Settings** (under the **System** module, **Administration** section, **Alerts Setup** side-bar navigation element)

Password information in the above screens is encrypted through SSL (https). However, once a user navigates out of these areas, Nortel Workforce Management switches back to normal http mode.

To enable SSL support only for transmitting sensitive data in Nortel Workforce Management:

| Step | Action |
|---|---|
| **1** | Make sure the WebLogic Server is configured to have SSL enabled.<br>a. Log in to the WebLogic console.<br>b. Select the appropriate server.<br>c. Make sure **SSL Listen Port Enabled** is checked and **SSL Listen Port** has a port number specified |
| **2** | Log in to Nortel Workforce Management as an administrator. |
| **3** | In the **System** module, go to the **Administration** section and click the **General** side-bar navigation element. |
| **4** | In the **System Configuration** container, make sure the checkbox for **Use SSL Encryption for Sensitive Data (Requires SSL Certificate)** is checked and that the port listed next to **SSL Port** matches that specified above for the WebLogic SSL Listen Port. |



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**ATTENTION**
Users might not be able to log in to Nortel Workforce Management if these settings are not configured properly, such as if the SSL ports do not match.

5 Restart the WebLogic server for the changes to take effect.

**—End—**

## Using SSL Globally for Nortel Workforce Management

Instead of using SSL selectively in Nortel Workforce Management when sensitive information is being transmitted, you can configure Nortel Workforce Management to SSL (HTTPS) globally, such that all information transmitted between the browser and the WebLogic server is encrypted.

**ATTENTION**
Forecasting and Scheduling does not work when SSL is used globally for Nortel Workforce Management.

To enable SSL for Nortel Workforce Management (without allowing non-SSL/HTTP):

| Step | Action |
|---|---|
| 1 | Make sure the WebLogic Server is configured to have SSL enabled.<br>a. Log in to the WebLogic console.<br>b. Select the appropriate server.<br>c. Make sure **SSL Listen Port Enabled** is checked and **SSL Listen Port** has a port number specified.<br>d. Uncheck **Listen Port Enable** if you do not want to allow non-SSL (HTTP) and only want to use SSL (HTTPS). |
| 2 | In the **System** module, go to the **Administration** section and click the **General** side-bar navigation element. |
| 3 | In the **System Configuration** container, make sure the checkbox for **Use SSL Encryption for Sensitive Data (Requires SSL Certificate)** is unchecked. (You are not using SSL encryption for sensitive data, but for all data, so enabling this setting is not necessary.) |
| 4 | Restart the WebLogic server for the changes to take effect. |



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**—End—**

# Security and Lightweight Directory Access Protocol (LDAP)

This section provides an overview of the security concept in Nortel Workforce Management. It describes the notion of security realms, the authentication process, LDAP support, users, access privileges, roles, etc.

## Basic Concepts

### Security Realm (Authentication)

A security realm is a container for the mechanisms—including users, groups, security roles, security policies and security providers—that are used to protect WebLogic resources.

Nortel Workforce Management supports two types of security realms: *Read-Only* and *Modifiable*. The read-only realm uses LDAP. The only supported modifiable realm is *DBRealm*, which stores security information in a database.

### LDAP Authentication

Nortel Workforce Management supports LDAP for user authentication. You can use existing usernames and passwords to log into the Nortel Workforce Management web application, making the system much easier to use and maintain.

By default, Nortel Workforce Management stores usernames and passwords in the database. The passwords are encrypted there. This set-up is known as *DBRealm*. However, the authentication method can be changed to use LDAP for user authentication. To use LDAP user authentication, you must have a good understanding of the technical configuration details of your LDAP server.

Nortel Workforce Management's user authentication and support for LDAP is controlled by BEA WebLogic version 8.1, the application server platform.

### LDAP Authentication Workflow

The following sequence is a representation of what happens when LDAP authentication is used in Nortel Workforce Management:

1. A user opens a browser to access Nortel Workforce Management, which provides an HTTP form to let the user input a username and password.
2. The user submits the form through an HTTP/HTTPS posting to the application server, using port 80 (or 7001 on the WebLogic server).



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3. The application server opens a connection to the Active Directory server under a predefined user name, and issues a query to verify the username/password through LDAP protocol, using port 389.
4. The application server receives a positive result from the Active Directory server, and then generates user information in the HTTP Session, issuing back an HTTP session ID as a cookie to the browser.
5. The user continues operation with the browser, which will always send back the cookie with the session ID to the application server.
6. The application server retrieves the user information stored in the HTTP session based on the session ID from the cookie; it does not authenticate the user a second time.
7. When the user signs off from the web application, the HTTP session is cleared along with user information.

If the user doesn't issue any HTTP request in a given window (controlled in Nortel Workforce Management), the application server automatically times out the HTTP session.

### After Authentication

Nortel Workforce Management relies on the application server's security realm to authenticate users, that is, to verify that the provided username and password are valid. Once a user has been authenticated, the security framework tries to find the corresponding user in Nortel Workforce Management. The search for a match is performed by matching the username with a user in the **BPUSER** table.

If a match is found, Nortel Workforce Management makes sure the current user has not been terminated and has access rights to Nortel Workforce Management. Otherwise, the authenticated user is forwarded to Self Registration (where Nortel Workforce Management is configured to use a modifiable realm).

### Privilege

Privilege is the basic security unit used to determine whether a user has access to certain features. There are four types of privileges based on their *scope*:

- Generic
- Organization
- Campaign
- Report

Privileges with organization and campaign scope are used to control access to organization- and campaign-related information.



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Privileges are read-only; their availability is controlled through the license file used for that particular installation.

### Secure Fields

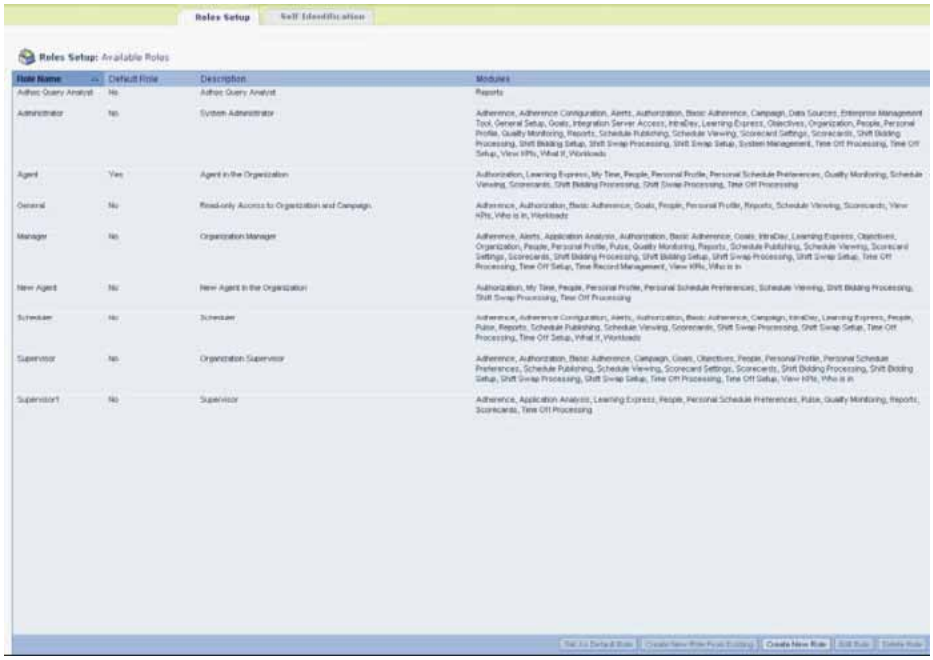
Secure fields contain employee information that might be considered sensitive and that you therefore want to be protect from public viewing or editing. Example of these fields are Wage, Birth Date, and Proficiency.

### Role

In Nortel Workforce Management, roles are basically used to group Privileges and Secure Fields to facilitate assigning privileges to users. Roles and scopes are assigned to users through the **Access Rights** tab of the **People** module.

Organization scope is required when a role contains organization scope privileges. However, a Campaign scope selection is not required even when the role contains campaign scope privileges.

The following graphic shows the tab used to edit roles. The **Roles Setup** tab can be accessed through the **Security** section of the **App Admin** module.




Selecting a role and clicking **Edit Role** gives you access to a page where you can assign privileges to the role and configure the secure fields.

**Default Role** The default role is used only for self registration. It is the role automatically assigned to a user created through self registration.



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A role is designated as the default role using the **Set As Default Role** button of the **Roles Setup** tab, which can be accessed through the **Security** section of the **App Admin** module, as previously mentioned.

**Users** Within Nortel Workforce Management, a user represents the individuals who may use Nortel Workforce Management. You assign privileges assigned to users using the **Access Rights** tab, as described previously.

Users can be created in several ways:

- They can be migrated from a previous release.
- They can be created through Self Registration.
- A manager can create users using the **Profiles** tab of the People module.

The **Users** tab of the People module can be used to delete users and edit usernames and passwords.

You specify a user name in the empty **User Name** field to create a username for a user.

To remove an existing username for a selected user, empty the **User Name** field and click **Save**.

***Note:*** Password fields are shown blank even when a user has password assigned, once the **Users** tab has been refreshed after you click **Save**.

### Navigation

The navigation elements displayed to a user are based on the privileges that user has. Different users might therefore see different navigation elements. For example, only a few areas are accessible by an agent, so the navigation for an agent is very limited.

## Configuring LDAP for Use with Nortel Workforce Management

***Note:*** The information in this section has been tested with Microsoft Active Directory only. Any other LDAP server may differ in configuration. Also, this integration is not a single sign-on solution. You may choose to try another Authenticator but Nortel makes no guarantees that the application will function properly. If you run into problems, you must change to the Microsoft Active Directory Authenticator or the Nortel DBRealm authentication

By default, Nortel Workforce Management stores and encrypts usernames and passwords in the database. As mentioned previously on "Security Realm (Authentication)" (page 312), this configuration is known as DBRealm. However, the authentication model can be changed to use LDAP



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for user authentication. To use LDAP user authentication, you must have a very good understanding of the technical configuration details of your LDAP server.

You need the following information for LDAP configuration:

- The host name or IP address of the LDAP server.
- The port number on which the LDAP server is listening. (default port = 389)
- The User Base DN of the LDAP server.
- The Group Base DN of the LDAP server.
- The user account that will have access to query the LDAP server for usernames and passwords, or you can use the WLSAdmin user that you will be instructed to create later in this section.
- The domain name of the active directory server (ex. **qa.acme.com**)

To begin the configuration:

***Note:*** We recommend that you try the following procedure first on a test or training environment. In any event, we recommend that you back up the production domain folder on the Weblogic server so you may revert back to the original security settings. The default folder location is:
**C:\VerintProductionServer[release_number]\weblogic81\Verint Systems**

| Step | Action |
|---|---|
| **1** | Create the following two users and add them to the administrators group in LDAP, or create a group called **VerintUsers** that contains the following two users.<br>• **Username = WLSAdmin**<br>• **Username = wsuperuser**<br><br>***Note:*** **WLSAdmin** is used to start WebLogic. This user must be created in LDAP for WebLogic to authenticate during startup. wsuperuser is a user that is used to administer WebLogic and Nortel Workforce Management after startup. If this user is not created, you will not be able to log in to the WebLogic console and make changes. |
| **2** | The Nortel Workforce Management user authentication and support for LDAP is controlled by WebLogic (version 8.1). To access the LDAP configuration, you must first log into the WebLogic console. The console can be found at:<br><br>**http://<applicationservername>:<port>/console** |



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where:
**<applicationservername>** is the name of your application server
**<port>** is the port on which your application server is listening

3 Log in as **wsuperuser**.

4 Find the Authentication Providers by navigating in the tree on the left-hand side of the console as follows.

**Security->Realms->BPDBRealm->Providers->Authentication**

5 Create a new Authenticator by clicking **Configure a new Active Directory Authenticator...**.

***Note:*** You must modify the existing BPDBRealm instead of creating a new realm in Weblogic 8.1.

6 Click the **Active Directory** tab and specify the Active Directory parameters as follows:

- The Active Directory Host (hostname or IP address)
- Port (port on which the Active Directory LDAP server listens)
- SSL Enabled
- Principal (username created on the LDAP Server that the WebLogic Server uses to connect to the LDAP server). WLSAdmin can be used here instead of creating another user.
- Credential (credential/password used to authenticate the above-named user)
- Cache Enabled (whether a cache should be used with the LDAP server)
- Cache Size (if Cache is to be used, the size in KB to be used)
- Cache TTL (if Cache is to be used, the "time-to-live" of the cache)

***Note:*** You should use the default cache settings.

7 Click the **Users** tab to set up users' details.

The user parameters include:

- **User Object Class** (The name of the LDAP object class that stores users, generally **user**.)
- **User Name Attribute** (The attribute of the LDAP user object that specifies the name of the user, generally **cn**.)
- **User Dynamic Group DN Attribute** (The attribute of an LDAP user object that specifies the Distinguished Names (DNs) of dynamic groups to which the user belongs.)



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- **User Base DN** (The base Distinguished Name (DN) of the tree in the LDAP directory that contains users.)
- **User Search Scope** (Specifies how deep in the LDAP directory tree the Active Directory Authentication provider should search for users. The options are **subtree** and **one level**.)
- **User From Name Filter** (An LDAP search filter for finding a user, given the name of that user. If a filter is not specified, a default search filter is created based on the user schema).
- **All Users Filter** (An LDAP search filter for finding all users beneath the base user Distinguished Name (DN). If a filter is not specified, a default search filter is created based on the user schema)

8 Enter settings for the **User Dynamic Group DN Attribute**. For example: **cn=users,dc=qa, dc=bluepumpkin, dc=com**. This location needs to include the **WLSAdmin**, **wsuperuser**, and all application users. You may need to use the User Base DN, but this could cause performance issues.

9 Modify the setting of **User From Name Filter**. When using Microsoft Active Directory, replace the **CN** portion of the filter name with sAMAccountName, as shown in the previous graphic.

***Note:*** This filter must be set to **sAMAccountName** for WebLogic to read the logon name in Active Directory. If it is set to **CN**, WebLogic reads the display name and not the logon name.

Except as mentioned above, all other **User** parameters should retain their default values.

10 Click the **Groups** tab to configure the groups.

The group parameters include:

- **Group Base DN** (The base Distinguished Name (DN) of the tree in the LDAP directory that contains groups.)
- **Group Search Scope** (Specifies how deep in the LDAP directory tree the Active Directory Authentication provider should search for groups. The options are **subtree** and **one level**.)
- **Group From Name Filter** (An LDAP search filter for finding a group, given the name of that group. If a filter is not specified, a default search filter is created based on the group schema.)
- **All Groups Filter** (An LDAP search filter for finding all groups beneath the base group Distinguished Name (DN). If a filter is not specified, a default search filter is created based on the group schema.)



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- **Static Group Object Class** (The name of the LDAP object class that stores static groups. The default is **group**.)
- **Static Group Name Attribute** (The attribute of a static LDAP group object that specifies the name of the group. The default is **cn**.)

11 Enter the **Group Base DN**. For example **dc=qa,dc=bluepump-kin,dc=local**. To improve performance, all users, including **WLSADMIN** and **wsuperuser**, should be members of the same group. The group **VerintUsers** DN should be in this field.

Except as mentioned above, all other **Group** parameters should retain their default values.

***Note:*** If you are creating a separate group for **WLSAdmin** and **wsuperuser** users, you should also add all application users to be members of this group. This will allow you to set the **Group Base DN** to the location of this group in the LDAP tree and improve the speed of the search.

12 Delete the default Authenticator that uses DBRealm by clicking on the trash can icon next to **wfosDBAuthenticator**.

13 If the **WLSAdmin** user is not a member of the Administrators group in LDAP, make the following changes to the Global Roles.

14 Navigate to **Security->Realms->BPDBRealm->Global Roles**.

15 Click **Admin** on the right side of your screen.

16 If **VerintUsers** exists, remove the setting **Caller is a member of the group Administrators** and add Caller is a member of the group **VerintUsers**.

17 Restart the WebLogic server.

**—End—**

For additional information, the WebLogic help system, accessible by clicking the question mark at the upper right side of the console screen, is an good starting place.

**ATTENTION**

If WebLogic does not start, or you run into other issues, you can reinstall the Nortel Workforce Management application server to restore the system. Reinstalling will not cause any data to be deleted or removed in the database. Please contact Technical Support if you have any questions or concerns.



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## Database Backup Policies

An essential item that needs to be created for Nortel Workforce Management is a database backup policy, to ensure that your critical data is protected.

For those using Microsoft SQL Server 2005, the database administrator or IT group can create such a backup policy using SQL Server Management Studio.



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# Appendix Glossary

This Glossary offers brief definitions of some of the terms used in Workforce Management.

| Term | Definition |
|---|---|
| **ACD** | Automatic Call Distributor. |
| **ACD Queue** | Queues used by your automatic call distributor (ACD) to sort and route phone calls to the appropriate agents. |
| **ACD Setup** | The module that allows the administrator to configure the ACD integration process. |
| **Agent** | A person in a call center who responds to customer contact via phone, e-mail, fax, etc. |
| **CMM** | Call Monitoring and Management. One of three RTAA packages available with Scorecards. |
| **CRM** | Customer Relationship Management. |
| **CTC** | CT-Connect. |
| **CTI** | Computer Telephony Integration. |
| **Distributed Queue** | Distributed queues are used in campaigns where calls are distributed among multiple sites using a percent allocation method. This type of queue can only be added to a campaign that has at least one defined sub-campaign. |
| **KPI** | Key Performance Indicator - an item used to measure performance. |
| **MSJVM** | Microsoft Java Virtual Machine. |
| **Queue** | A mechanism for aggregating work volume. Can be mapped one to one to an ACD queue, but can also have multiple queues mapped to it. See ACD Queue. |



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| Term | Definition |
| --- | --- |
| **Role** | A role is a definition that defines user access. It contains a set of user privileges that allows the people to whom the role has been assigned to access and manipulate various modules and tabs in Workforce Management, and the data within them. |
| **Virtual Queue** | Virtual queues are used in campaigns where calls are distributed among multiple sites using a dynamic method of distribution. Only certain types of ACDs support dynamic distribution, such as Cisco, Genesys, Avaya BSR, and Look Ahead Interflow. You can add this type of queue only to a stand-alone campaign. Campaigns that are sub-campaigns or that allow sub-campaigns cannot have virtual queues. |


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Nortel Workforce Management

# Administration Guide

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