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  - VoIP Devices for Server Recording  
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- Licensing and VoIP Device Configuration Considerations  
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Cisco Unified Workforce Optimization Quality Management (Quality Management) is a comprehensive recording solution that addresses the common needs for recording customer interactions—whether it is for compliance, quality management, or both.

Call Recording provides a solution to record all calls—commonly done to meet regulatory compliance requirements or to handle customer disputes. Call Recording makes the task of recording, archiving, and retrieving 100% of customer calls more manageable in the following ways:

- An organization can choose to record all calls for everyone, or for specific teams of agents and knowledge workers configured in the system.
- Archive parameters are flexible and storage is secure.
- Advanced query options let users find recordings quickly and easily among thousands of logged interactions.

Quality Management helps businesses refine their processes and improve their bottom line in the following ways:

- Increase revenue by improving customer satisfaction and increasing customer loyalty.
- Provide consistent, high-quality customer experiences.
- Identify customer needs and expectations.
- Reduce labor costs for agent identifications.

Quality Management software uniquely uses the processing power of each agent’s PC to record and process the voice transactions and screen transactions for performance evaluation or compliance. The application architecture minimizes hardware and bandwidth use for multi-site centers, which makes it practical to deploy an effective quality management program in virtual environments.

Quality Management Administrator is used to:

- Assign user roles.
- Set up groups.
- Create evaluation forms, manage evaluation forms.
- Set up workflows for recording customer contacts.
- Set up a recording archiving.
- Maintain the Quality Management system.
Getting Started

This topic provides the essential information for accessing Quality Management Administrator, synchronizing the databases, and understanding the automated update feature.

Logging into Quality Management Administrator

This task describes how to log in to Quality Management Administrator.

Quality Management Administrator is installed on the Quality Management Base Services server by default during a normal install. You can also install it on a client machine. See the Installation Guide for more information about installing Quality Management Administrator on a client machine.

TASK

1. Choose Start > All Programs > Cisco > WFO > Quality Management Administrator.

   **STEP RESULT:** Quality Management Administrator starts and the Administrator Login dialog box appears (Figure 1).

   ![Administrator Login dialog box](image)

   **Figure 1.** Administrator Login dialog box

2. Complete the dialog box as follows, and then click OK or press the Enter key.

   - Type **administrator** in the User Name field. The username, administrator, is a default username. You cannot change it. This field is not case sensitive.
   - Type the password that was set up during system installation in the Password field. This field is case sensitive.

   **STEP RESULT:** Quality Management Administrator validates your login against the password configured during system installation, and then logs you in to Quality Management Administrator.
Changing the Administrator Password

**PREREQUISITE**

The administrator password must be between 1 and 32 alphanumeric characters long. It is case sensitive.

The password should remain confidential. If your password is no longer confidential, change the password. Follow these steps to change it.

**TASK**

1. From the menu bar, choose Settings > Change Administrator Password.

   **STEP RESULT:** The Change Password dialog box appears.

2. Type your old password, a new password, and the new password again to confirm it, and then click OK.

Synchronizing Databases

**PREREQUISITE**

If you chose to synchronize users with an Automated Call Distributor (ACD) when configuring Quality Management, you must configure the ACD as follows:

Set up teams, agents, supervisors, and devices in Cisco Unified Contact Center Express (Unified CCX).

Quality Management automatically synchronizes the following databases at 10-minute intervals.

- Unified CCX database.
- Quality Management database.

Use this task if you need to manually synchronize the databases.

**TASK**

1. On the menu bar, choose File > Synchronize Databases.

   **STEP RESULT:** The synchronization process starts. While the process is running, Quality Management changes the menu option from Synchronize Databases to Synchronize Databases (Running) and disables the option.
NOTE: You might see a Microsoft Windows Security Alert saying that the Windows Firewall had blocked Java(TM) 2 Platform Standard Edition (SE) binary. To add an exception for this binary, click Unblock and try again.

2. When the process is complete, Quality Management returns the menu option to Synchronize Databases and enables the option.

Logging Out of Quality Management Administrator

TASK

• To log out and leave Quality Management Administrator running, choose File > Log Off, and then click OK.

ADDITIONAL INFORMATION: If you log out and leave Quality Management Administrator running you can easily log in to Quality Management Administrator again.

STEP RESULT: You are logged out of Quality Management Administrator and the application remains available.

• To log back in when Quality Management Administrator is running, choose File > Administrator Login, type administrator in the User Name field and the administrator password in the Password field, and then click OK.

• To log out and close Quality Management Administrator, choose File > Exit or click the Close in the upper right corner of the window.

Automated Updates

You can enable automated updates in Quality Management. When you install a newer version of Quality Management on the servers, the automated update feature updates all instances of the client applications (Quality Management Administrator and Desktop Recording service) when you start a client application. When this happens, a dialog box notifies you that your instance of Quality Management Administrator will be updated. Click OK and then follow the instructions in the installation wizard that follows.

NOTE: If the automated update process is running, do not attempt to start another client application, or another instance of the automated update process may start.

When the update completes, you will see a final dialog box telling you that your update is complete. Click OK, and then restart Quality Management Administrator and log in as usual.
NOTE: If you cancel an update, the update fails. However, you still see a message that the upgrade has completed. The next time you start Quality Management Administrator, the automated update process runs again.

Depending on the version you are upgrading, from Quality Management Administrator might not allow you to update using automated updates. When automated updates are not allowed, you will see the following message on the client machine:

You are trying to update to a version that does not allow over the top updates.

Automated update logs are located on the client machine in the following folder:

C:/Documents and Settings/<username>/Local Settings/Temp/Calabrio Quality Management Software Update Log.txt

where <username> is the user's login ID.
Administrator Interface

The Quality Management Administrator interface has two panes. The left pane is a navigation tree. The right pane displays the node that you selected in the left pane.

Figure 2. Quality Management Administrator interface

Moving Within the Navigation Tree

Use the following mouse or keyboard actions to move within the navigation tree.

Mouse

- Double-click an icon/node name to expand or collapse the tree.
- Click the plus sign (+) to the left to expand the tree.
- Click the minus sign (−) to the left to collapse the tree.

Keyboard

- Press the Up and Down arrow keys to move from one node to the next.
• Press the Left arrow key to collapse the tree.
• Press the Right arrow key to expand the tree.

### Sorting Tables

Data that appears in a table can be sorted by as many columns as there are in the table. The sort can be ascending or descending.

The small triangles at the right of the column heading display the direction of the sort. These arrows also change size depending on the column's position in the sort. The triangle in the primary sort column is biggest, the one in the secondary sort column is slightly smaller, and so on.

### Sorting a Table by One Column

**TASK**

- To sort a table by one column, click the column heading.
- To reverse the sort order, click the column heading again.

### Sorting a Table by Multiple Columns

**TASK**

1. Press the Ctrl and click the primary sort column heading.

2. Continue holding down the Ctrl key and click any other column headings you want to sort the table by.
Site Configuration

Use the Site Configuration windows to modify the Quality Management environment. The options that you see in the Site Configuration window depends on the environment in which you installed Quality Management and the options that you chose to configure during installation.

If you are running Quality Management Administrator on a client desktop, some features are disabled under Site Configuration. You can only modify these features from Quality Management Administrator or Configuration Setup (PostInstall.exe) on the Base Services server. For more information about Configuration Setup, see the Installation Guide.

NOTE: The Inclusion List does not appear in the Quality Management Configuration Setup tool. It is located under the Site Configuration node.

Modifying Site Configuration Information

The following task describes how to modify the site configuration information.

TASK
1. Expand the Site Configuration node in the navigation tree, and then select the window you wish to modify.

   STEP RESULT: The selected window appears in the right pane.

2. Enter the new data in the appropriate fields.

3. Click Save.

   STEP RESULT: Modifications take effect after you save your changes.

System Database

Use the System Database window (Figure 3) to configure connection information for the Quality Management system database.

NOTE: You can only change the information in the System Database window from the Quality Management Configuration Setup
(PostInstall.exe) or Quality Management Administrator on the Base server. The System Database window in Quality Management Administrator on a client desktop is read-only. See “Configuration Setup” in the *Installation Guide* for more information on the Configuration Setup tool.

**Figure 3.** System Database window

![System Database window](image)

**Table 1.** System Database fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host Name/IP Address</td>
<td>The hostname or IP address of the system database server (the server on which SQL Server is installed). If you need to specify a configured port on the system database server, choose Host Name and use the following format in the IP Address field: <code>&lt;IP address or hostname&gt;:&lt;port number&gt;</code> where <code>&lt;IP address or hostname&gt;</code> is the IP address or hostname and <code>&lt;port number&gt;</code> is the configured port number of the system database server (for example, 10.188.252.11:1455).</td>
</tr>
<tr>
<td>SQL Instance Name</td>
<td>The Quality Management SQL Server instance name. Leave blank if you want to use the default instance.</td>
</tr>
<tr>
<td>Username</td>
<td>The DB Proxy service uses this name to access the Quality Management database. See “Microsoft SQL Server” in the <em>Installation Guide</em>.</td>
</tr>
<tr>
<td>Password</td>
<td>The DB Proxy service uses this password to access the Quality Management database (see “Microsoft SQL Server” in the <em>Installation Guide</em>).</td>
</tr>
</tbody>
</table>
Configuration Settings Used By Services

If you change the settings on the System Database window, Table 2 shows when your changes take effect.

Table 2. When services start using the changed configuration settings

<table>
<thead>
<tr>
<th>Service</th>
<th>Configuration Settings Applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data API Service</td>
<td>Restart the service.</td>
</tr>
<tr>
<td>DB Proxy Service</td>
<td>Restart the service.</td>
</tr>
<tr>
<td>Sync Service</td>
<td>No restart required. The next sync period (every 10 minutes) applies the configuration settings.</td>
</tr>
</tbody>
</table>
Cisco Unified CC Database

Use the Cisco Unified CC Database window (Figure 4) to configure connection information for the Cisco Unified Contact Center Express (Unified CCX) database. Quality Management uses this information to sync agents and teams from Cisco Unified CCX.

**NOTE:** You can only change the information in the Cisco Unified CC Database window from the Configuration Setup (PostInstall.exe) or Quality Management Administrator on the Base server. The Cisco Unified CC Database window in Quality Management Administrator on a client desktop is read-only. See “Configuration Setup” in the Installation Guide for more information on the Configuration Setup tool.

Figure 4. Cisco Unified CC Database window
### Table 3. Cisco Unified CC Database fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Side A Server Name</td>
<td>The name of the Unified CCX server for the Side A (primary) Cisco Unified CC database. If the server name contains a hyphen (-), replace the hyphen with an underscore (_) when you enter the server name in this field. This ensures the correct configuration of the file name. Configuration Setup appends _uccx to the name that appears in this field the next time you run Configuration Setup. <strong>NOTE:</strong> Do not remove _uccx from the name.</td>
</tr>
<tr>
<td>Side A IP Address</td>
<td>The IP address of the Unified CCX server for the Side A (primary) Cisco Unified CC database.</td>
</tr>
<tr>
<td>Side B Server Name</td>
<td>The name of the Unified CCX server for the Side B (secondary) redundant Cisco Unified CC database, if one exists. If the server name contains a hyphen (-), replace the hyphen with an underscore (_) when you enter the server name in this field. This ensures the correct configuration of the file name. Configuration Setup appends _uccx to the name that appears in this field the next time you run Configuration Setup. <strong>NOTE:</strong> Do not remove _uccx from the name.</td>
</tr>
<tr>
<td>Side B IP Address</td>
<td>The IP address of the Unified CCX server for the Side B (secondary) redundant Cisco Unified CC database, if one exists.</td>
</tr>
<tr>
<td>DB Instance Name</td>
<td>The name of the Cisco Unified CCX database. The name is rdsaux01_uccx and the field is disabled by default.</td>
</tr>
<tr>
<td>Port</td>
<td>The port number used by the Cisco Unified CCX database. The port number is 1504 and the field is disabled by default.</td>
</tr>
<tr>
<td>User</td>
<td>Login ID used to access the Cisco Unified CC database. This user must have write permission to the database. The login ID is uccxworkforce and the field is disabled by default.</td>
</tr>
<tr>
<td>Password</td>
<td>Password used by uccxworkforce to access the Cisco Unified CC database.</td>
</tr>
</tbody>
</table>
Configuration Settings Used By Services

If you change the settings on the Cisco Unified CC Database window, Table 4 shows when your changes take effect.

Table 4. When services start using the changed configuration settings

<table>
<thead>
<tr>
<th>Service</th>
<th>Configuration Settings Applied</th>
</tr>
</thead>
</table>
| Sync Service    | No restart required. The next sync period applies the configuration settings. Sync applies any changes without restarting the Sync service. Best practice recommends updating the settings in the Cisco Unified CC Database in the following order:  
1. Stop the Sync service and the Upload Controller service.  
2. Back up the SQMDB catalog.  
3. Change the configuration settings on the Cisco Unified CC Database window.  
4. Start the Sync service.  
5. Verify the data by looking for mass deactivations.  
6. Restart the Upload Controller service. Restarting the Upload Controller services adds new calls to the database. |
Cisco Unified CM

Use the Cisco Unified CM window (Figure 5) to configure the connection information for the Cisco Unified Communications Manager (Unified CM) cluster in your system. The Cisco Unified CM window also allows you to configure the Simple Object Access Protocol (SOAP) Administrative XML Layer (AXL) user and Unified CM Java Telephony Application Programming Interface (JTAPI) user used by the Computer Telephony Integration (CTI) service to log in to the Unified CM.

Figure 5. Cisco Unified CM window

A Unified CM cluster has one or more CTI Managers. The CTI Manager is a service that runs on the Unified CM and handles JTAPI events for every Unified CM in the cluster. You can specify a primary and backup CTI Manager.

NOTE: A Unified CM cluster requires at least one CTI Manager.

You can choose any Unified CM to be your primary and backup CTI Manager. If you have Unified CM subscribers, select one of these as your primary CTI manager.

NOTE: You can configure any machine as the primary CTI Manager, but it is a good idea to avoid using the publisher, because it already has
the highest load. Using another server as the primary CTI Manager helps avoid decreasing Unified CM performance.

You must enter each Unified CM in the cluster in Configuration Setup so that the Desktop Recording service can find the location of the Recording CTI service. Quality Management stores an association between the Recording CTI service and the Unified CMs in the cluster. If a Unified CM is not in the list, the Desktop Recording service will not know where to register for events.

**NOTE:** Adding a new cluster here does not actually add a Unified CM cluster. It creates the association between the Recording CTI service and the Unified CMs in the cluster.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOAP AXL Access Username</td>
<td>The AXL (Administrative XML Layer) authentication username for this cluster. This username is created when you configure Unified CM.</td>
</tr>
<tr>
<td>SOAP AXL Access Password</td>
<td>The AXL authentication password. This password is created when you configure Unified CM.</td>
</tr>
</tbody>
</table>
## Telephony Signaling Method

The telephony signaling method for Cisco Unified CM. The available options are as follows:

- **CTI**—Choose this method if you are using Desktop Recording, Server Recording, or Network Recording. This option enables the fields in the Recording CTI Service window.
- **MediaSense**—Choose this method if you are using MediaSense Recording. Cisco MediaSense provides recording, playback, live streaming, and storage of media, including audio and video, to improve customer care. This option enables the fields in the Cisco MediaSense and MediaSense Subscription Service windows.
- **Mixed**—Choose this method if you are using MediaSense Recording and Desktop Recording, Server Recording, or Network Recording. This option enables fields in the Recording CTI Service, Cisco MediaSense, and MediaSense Subscription Service windows.

If you change the option in this drop-down list, expect the following behavior:

- If you switch from MediaSense to Mixed or CTI, you must install the Recording CTI service and JTAPI. If you chose MediaSense and installed the Recording CTI service, you must disable the Recording CTI service. If the Recording CTI service is running with the MediaSense method, error messages will appear in the CTI logs.
- If you switch from MediaSense or Mixed to CTI, you will lose the configuration data in the Cisco MediaSense window.

If your site has multiple Unified CM clusters and a MediaSense cluster, you must assign either the MediaSense or Mixed option to one of the Unified CM clusters and the CTI option to the remaining Unified CM clusters.

## JTAPI Username

The JTAPI username for CTI. This is the application user with which all phone devices used for recording are associated. The Recording CTI service logs into the Unified CM with this user. The username must be between 1 and 32 alphanumeric characters. This field is enabled when you choose CTI or Mixed from the Telephony Signaling Method drop-down list.

## JTAPI Password

The JTAPI user’s password for CTI. This must be between 1 and 32 alphanumeric characters. This field is enabled when you choose CTI or Mixed from the Telephony Signaling Method drop-down list.

## Publisher and Subscribers Host Name/IP Address

The host name or IP address of the publisher and subscriber (if any) Unified CMs. You can enter 1 publisher Unified CM, and up to 8 subscriber Unified CMs.

**NOTE:** When using hostnames, verify the server can resolve the name of the publisher and subscribers. If the hostname cannot be resolved, the Recording CTI service cannot log in.
Site Configuration
Cisco Unified CM

Configuration Settings Used By Services

If you change the settings on the Cisco Unified CM window, Table 5 shows when your changes take effect.

Table 5. When services start using the changed configuration settings

<table>
<thead>
<tr>
<th>Service</th>
<th>Configuration Settings Applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recording CTI Service</td>
<td>Restart the service.</td>
</tr>
<tr>
<td>Quality Management Administrator (VoIP Devices)</td>
<td>Reload the VoIP Device window.</td>
</tr>
<tr>
<td>Network Recording Service</td>
<td>No restart required. The next polling period applies the configuration settings.</td>
</tr>
<tr>
<td>Desktop Recording service</td>
<td>Restart the service.</td>
</tr>
</tbody>
</table>
Managing Unified CM Clusters

This task describes how to add or delete a Unified CM cluster from the Cisco Unified CM window.

**TASK**

- To add a new cluster, click Add New Cluster, complete the fields on the tab created for the new cluster, and then click Save.
- To delete a cluster, select the tab for the Unified CM cluster you wish to delete, click Remove Current Cluster, and then click OK to dismiss the Delete Current Cluster dialog box.

Recording CTI Service

Use the Recording CTI Service window (Figure 6) to configure the connection information for the Recording CTI Service.

**NOTE:** The fields in this window are enabled if you choose the CTI or Mixed options from the Telephony Signaling Method drop-down list in the Cisco Unified CM window.

![Recording CTI Service window](image)
Table 6. Recording CTI Service fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster</td>
<td>(Read-only) The IP address of the primary CTI Manager for this Unified CM cluster to which the Recording CTI Service will connect for call events.</td>
</tr>
<tr>
<td>Primary CTI Service Host Name/IP Address</td>
<td>The hostname or IP address of the primary Recording CTI service.</td>
</tr>
<tr>
<td>Backup CTI Service Host Name/IP Address</td>
<td>The hostname or IP address of the backup Recording CTI service.</td>
</tr>
</tbody>
</table>

Configuration Settings Used By Services

If you change the settings on the Recording CTI Service window, Table 7 shows when your changes take effect.

Table 7. When services start using the changed configuration settings

<table>
<thead>
<tr>
<th>Service</th>
<th>Configuration Settings Applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recording CTI Service</td>
<td>Restart the service.</td>
</tr>
<tr>
<td>Quality Management Administrator (VoIP Devices)</td>
<td>Reload the VoIP Device window.</td>
</tr>
<tr>
<td>Network Recording service</td>
<td>Restart the service. <strong>NOTE:</strong> If you add a backup Recording CTI Service from the Configuration Setup utility while in Update Mode, you must restart the Network Recording service.</td>
</tr>
<tr>
<td>Desktop Recording service</td>
<td>Restart the service.</td>
</tr>
</tbody>
</table>

Adding a Backup CTI Service

This task describes how to add a backup CTI service. The primary CTI service was configured when you installed Quality Management.

**TASK**

1. From the Configuration Setup tool on the base machine or Quality Management Administrator, choose Recording CTI Service.
**STEP RESULT:** The Recording CTI Service window appears.

2. Choose Host Name or IP Address for the Backup CTI Service, and enter the hostname or IP address. Save your changes by clicking Save in Quality Management Administrator or Next in the Configuration Setup tool.

3. Load the installation DVD in the server for the backup CTI Service, and then navigate to the DVD in My Computer or Windows Explorer.

4. Double-click the file setup_MonRec_<version><build>.exe to start the installation wizard, where <version> is the version number and <build> is the build number.

**STEP RESULT:** The Custom Setup dialog box appears.

5. Click the icon next to the feature named CTI Services and select “This feature will be installed on local hard drive,” from the pop-up menu.

**ADDITIONAL INFORMATION:** You can change the location where the services will be installed by clicking Change and entering a new path.

6. Click Next, and then click Install.

**STEP RESULT:** The installation wizard installs the services you selected and starts the Configuration Setup tool.

**NOTE:** If Cisco Security Agent (CSA) is running on the server, the installation process stops it temporarily during the installation and restarts it after the installation finishes.

7. Click Next on each window in Configuration Setup, and then click Finish to complete the installation.

**AFTER COMPLETING THIS TASK:**

You must restart the Network Recording service for the change to take effect. If you do not restart the Network Recording service, it will not connect to the backup CTI Service.
Site Configuration
Cisco MediaSense

Cisco MediaSense

Use the Cisco MediaSense window (Figure 7) to configure connection information for the Cisco MediaSense cluster. Quality Management uses this information to download call recordings from Cisco MediaSense.

**NOTE:** You can only change the information in the Cisco MediaSense window from the Configuration Setup (PostInstall.exe) or Quality Management Administrator on the Base server. The Cisco MediaSense window in Quality Management Administrator on a client desktop is read-only. See “Configuration Setup” in the *Installation Guide* for more information on the Configuration Setup tool.

**NOTE:** The fields in this window are enabled if you choose the MediaSense or Mixed options from the Telephony Signaling Method drop-down list in the Cisco Unified CM window.

Figure 7. Cisco MediaSense window

![Cisco MediaSense window](image)
Table 8. Cisco Unified CC Database fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary MediaSense API Server IP Address</td>
<td>The IP address of the primary MediaSense API server.</td>
</tr>
<tr>
<td>Primary MediaSense API Server Port</td>
<td>The MediaSense port number used by the primary MediaSense Subscription service. Default = 8440.</td>
</tr>
<tr>
<td>Secondary MediaSense API Server IP Address</td>
<td>The IP address of the secondary MediaSense API server.</td>
</tr>
<tr>
<td>Secondary MediaSense API Server Port</td>
<td>The MediaSense port number used by the primary MediaSense Subscription service. Default = 8440.</td>
</tr>
</tbody>
</table>

Configuration Settings Used By Services

If you change the settings on the Cisco MediaSense window, Table 9 shows when your changes take effect.

Table 9. When services start using the changed configuration settings

<table>
<thead>
<tr>
<th>Service</th>
<th>Configuration Settings Applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring and Recording MediaSense Subscription service</td>
<td>Restart the service.</td>
</tr>
</tbody>
</table>
**MediaSense Subscription Service**

Use the MediaSense Subscription Service window (Figure 8) to configure the connection to the MediaSense Subscription service.

**NOTE:** The fields in this window are enabled if you choose the MediaSense or Mixed options from the Telephony Signaling Method drop-down list in the Cisco Unified CM window.

**Figure 8. MediaSense Subscription Service window**

![MediaSense Subscription Service window](image)

**Table 10. MediaSense Subscription Service fields**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host Name/IP Address</td>
<td>The hostname or IP address of the Monitoring and Recording MediaSense Service</td>
</tr>
</tbody>
</table>

**Configuration Settings Used By Services**

If you change the settings on the MediaSense Subscription Service window, Table 11 shows when your changes take effect.

**Table 11. When services start using the changed configuration settings**

<table>
<thead>
<tr>
<th>Service</th>
<th>Configuration Settings Applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring and Recording MediaSense Service</td>
<td>Restart the service.</td>
</tr>
</tbody>
</table>
Enterprise Settings

Use the Enterprise Settings window (Figure 9) to configure Quality Management.

You can use Enterprise Settings window to do the following:

- Enable automated software updates for client computers.
- Share login fields with other products.
- Configure Microsoft Active Directory domains (in an Active Directory system only).
- Configure session time-outs for Workforce Optimization and Quality Management Administrator.
- View license information and update software licenses, if you are not using an ACD, by importing a new software license file.
- Configure the locale for your system if your version of Quality Management supports other languages in addition to English.

Figure 9. Enterprise Settings window

NOTE: The Active Directory section appears in the Enterprise Settings window only if your system is configured to use Active Directory.
Configuration Settings Used By Services

If you change the settings on the Enterprise Settings window, Table 12 shows when your changes take effect.

Table 12. When services start using the changed configuration settings

<table>
<thead>
<tr>
<th>Service</th>
<th>Configuration Settings Applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Clients (Enable Updates change)</td>
<td>Restart the client application.</td>
</tr>
<tr>
<td>Quality Management Administrator (AD Authentication and Administrator session timeout change)</td>
<td>Log into Quality Management Administrator.</td>
</tr>
<tr>
<td>Workforce Optimization (AD Authentication and localization changes)</td>
<td>Start the Data API service.</td>
</tr>
</tbody>
</table>

Software Updates

Use the Automated Update feature to update the Quality Management Administrator and Desktop Recording service. When you enable the Automated Update feature, every time one of these client application starts, it checks the Quality Management services to determine if a newer version is available. If there is a newer version, the Automated Update feature automatically installs the update on the client desktop.

**NOTE:** If you apply a Service Release (SR) update to the system, the best practice is to disable the Automated Update feature first. After the SR update is installed, manually test an updated instance of the Desktop Recording service, Workforce Optimization, and Quality Management Administrator to verify they work. When you are satisfied they work, you can re-enable the Automated Update feature.

Patches

When you install a patch on the Quality Management server that includes patches for the client desktop, the patch installs a webpage called Patches.htm on the server. If the automatic update feature is disabled, you can download the patch for the client desktop from http://<Base Services IP address>/TUP/QM/Patches.htm.
Sharing Workforce Optimization with Multiple Products

Workforce Optimization allows you to access both Quality Management and Workforce Management (WFM) from a single login page. You can choose to access both products with a single password for both products or separate passwords for each product when you run the Configuration Setup tool.

Share Login Fields

If you choose to access both Quality Management and WFM from Workforce Optimization, you can also choose to share common login fields for these products by selecting the Share Login Fields with Other Products check box. If you select this option for both Quality Management and WFM, users are prompted for a single set of common login credentials.

If a user is not configured for multiple WFO products or the user wants to log into both of the WFO products with different login credentials, the user can select the Separate Product Logins check box in the Login window.

If you do not select the Share Login Fields with Other Products check box, users are prompted for separate login credentials for each WFO product.

Cisco recommends using shared login fields with Quality Management and WFM when the users use the same username and password for both products.

See the Application User Guide for more information on single-user login authentication.

Session Timeout Options

You can configure Quality Management Administrator or Quality Management in Workforce Optimization to do one of the following:

- Close all open popup windows and log off the user after a specified number of minutes of inactivity (session time-out).
- Allow a user to remain logged in indefinitely (default setting).

To configure the session timeout period, enter the desired number of minutes of inactivity before timeout occurs in the minutes field.

**NOTE:** When you change the Session Timeout value for Quality Management Administrator, you must restart Quality Management Administrator before the changes can take effect.

If a user accessed one or more Quality Management applications in the Cisco Workforce Optimization, each Quality Management application displays a Timeout
Warning dialog box 30 seconds before the application actually times out. If the user does not respond to the Timeout Warning dialog box, the dialog box and the application are closed and an alert is sent to the user stating that the application timed out and was closed.

When you are playing a contact recording, the session remains in an active state. Workforce Optimization does not time out when you are playing a contact recording.

License

This section displays the available licenses, and allows you to import licenses.

What appears in the License section after the initial installation depends on whether the Synchronize Users with ACD check box is cleared or selected. If you select the Synchronize Users with ACD check box, you are running Quality Management with Unified CCX with mixed-mode licensing enabled. Quality Management obtains the licenses from the Cluster View Daemon (CVD) in Unified CCX and then displays the active license information in the License section. Your licenses can be updated through Unified CCX Licensing.

**NOTE:** If a connection to the CVD cannot be made when initially running Configuration Setup, Quality Management will continue to try connecting to the CVD. You will not be able go to the next window until Quality Management can successfully connect to the CVD.

**NOTE:** If you add new license types (for example, change from only the QM license type to QM and AQM license types), you must ensure Quality Management Administrator is configured to support the new license types (for example, add a quality management workflow and assign users to the AQM license).

Contact your sales representative to obtain a new license file.

Licensing Rules

The license type determines what Quality Management records.

When you log into Workforce Optimization, you have access to all Quality Management applications allowed by the license and roles assigned to you.

The following rules apply to licensing.

- The license determines the Quality Management applications that the users can access in Workforce Optimization.
• The license determines what is recorded, not what is viewed, in Workforce Optimization. For example, if Agents X and Y use AQM or AQMA license, they can record their screens. If the supervisor for these agents only has a QM or QMA license, the supervisor can still view the screen recordings made by these agents.

• Because managers using a Cisco CR or CRA license only see the contact recordings in Recordings application, a manager with agents using the Advanced license should purchase at least a QM or QMA license if they want to evaluate those recordings.

• Because supervisors using a Cisco CR or CRA license only see the contact recordings in the Recordings application, a supervisor can only export audio recordings when an administrator configures the supervisor for export in Quality Management Administrator.

**Importing a License File**

This task describes how to import a Cisco CR license file.

**TASK**

1. Click the Import Software License link.

   **STEP RESULT:** Your browser starts and displays the License Management webpage.

2. Click Browse and navigate to the folder where your updated Cisco CR license file is stored, and select the file.

3. Click Upload.

   **STEP RESULT:** The Licensing Server uploads the Cisco CR license file.

4. Close the browser window.

   **STEP RESULT:** The results depend on the reason why you import a license.

   - The Enterprise Settings window does not display the uploaded Cisco CR license. Click Next on the Enterprise Settings window to validate the Cisco CR license. A message appears indicating whether or not the license successfully uploaded.
Active Directory

The Active Directory section appears in the Enterprise Settings window only if your system is configured to use Active Directory. Use the Active Directory section to configure Active Directory domains.

- The Quality Management server (or database server in multiple server configuration) must be installed on an Active Directory domain (not in a Workgroup).
- There must be at least one domain configured.
- Each domain must have at least one user path configured.

Domain Information

The connection information that you enter for Active Directory in the Domain Information dialog box (Figure 10) is verified using the entered credentials, and the user paths are validated when you click OK in the Domain Information dialog box.

Figure 10. Domain Information dialog box
### Table 13. Domain Information fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base DN</td>
<td>The location of all Active Directory users in the directory server tree. This field is autofilled with a sample format with variable names that you replace with the domain information. Maximum number of characters allowed = 1000. If your hostname has more than 3 parts, add additional DC=domain statements to the beginning of the Base DN field.</td>
</tr>
<tr>
<td>Domain Name</td>
<td>Defaults to the first part of the string entered in the Base DN field. In most cases this is the domain name, but in some cases you must edit the default.</td>
</tr>
<tr>
<td>Host Name/IP Address</td>
<td>The host name or IP address of the Active Directory server.</td>
</tr>
<tr>
<td>Port</td>
<td>The port used to access the Active Directory server. The field is autofilled with the default port 389, or 636 if you are using SSL (Secure Socket Layer).</td>
</tr>
<tr>
<td></td>
<td><strong>NOTE:</strong> If you change the port to anything other than 389 or 636, clearing or selecting the Use SSL check box will not change the port. The Quality Management server must allow socket communication on this port to be able to access the Active Directory server for user authentication.</td>
</tr>
<tr>
<td>Display Name</td>
<td>The name (not the login name, but the display name as configured in Active Directory) of a user with read access to the Active Directory database. Maximum number of characters allowed = 1000.</td>
</tr>
<tr>
<td>User Password</td>
<td>The user’s password.</td>
</tr>
<tr>
<td>User Search Base</td>
<td>The node in the Active Directory directory under which the user resides. Maximum number of characters allowed = 1000.</td>
</tr>
<tr>
<td>Use SSL</td>
<td>Select this check box to use SSL for connection to Active Directory. The check box is clear by default and indicates SSL is not enabled. Clearing or selecting this check box changes the default port number in the Port field.</td>
</tr>
</tbody>
</table>
Site Configuration
Enterprise Settings

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add Certificate</td>
<td>Click this button to locate the Certificate Authority (CA) certificate for Active Directory. Active Directory with SSL requires this certificate. The certificate provides the Active Directory identity and public key for SSL communication. Contact your Active Directory administrator for the location of the CA certificate for Active Directory. In many cases, the Certificate Authority on the Active Directory machine issues the CA certificate for Active Directory. If this is the case, you can access the certificate from: http://&lt;Active Directory server IP address&gt;/certsrv Download the certificate from this website by clicking Download a CA certificate, Certificate Chain, or CRL and save it to a folder. Then click Add Certificate to import the certificate. <strong>NOTE:</strong> After you import the certificate and save your changes, log out of Quality Management Administrator and log back in to verify the certificate works.</td>
</tr>
<tr>
<td>View Certificate</td>
<td>Select this button to view the certificate associated with Active Directory.</td>
</tr>
<tr>
<td>User Records (OUs)</td>
<td>One or more paths to user records (OUs). Click Add to add at least one path, or Remove to remove an existing path. Maximum number of characters allowed = 1000. You must specify Active Directory paths from the most specific to the least specific (from left to right in the path statement). For example, if the Active Directory tree is: ou=US ou=Minnesota ou=Minneapolis ou=Users Then the user record appears as follows: ou=Users,ou=Minneapolis,ou=Minnesota,ou=US Quality Management will search subtrees by default. For example, you could write the user record path as follows, and Quality Management will search all the subtrees under Minnesota. ou=Minnesota,ou=US</td>
</tr>
</tbody>
</table>
Managing Active Directory Domains

This task describes how to add or delete an Active Directory domain from the Enterprise Settings window.

**TASK**
- To add an Active Directory domain, click Add in the Active Directory section. The Domain Information window appears. Complete the fields and click OK.
- To delete an Active Directory domain, select the Active Directory domain you want to delete from the list in the Active Directory section, and then click Remove.

Locale

Use the Locale section to enable the language used in your contact center.

A site has only one locale. All agents, supervisors, evaluators, and managers must use the same locale. You cannot assign one locale to a set of agents and another locale to a different set of agents.

If you are running multiple products from the same Workforce Optimization interface, Cisco uses the same locale for each product.

Enabling a Locale

The following task describes how to enable the locale for Quality Management.

**TASK**
- Select the desired language from the Locale drop-down list.

*Additional Information:* You can enable only one locale per Quality Management system.
Inclusion List

Quality Management uses the Inclusion List window (Figure 11) to determine which extensions to record and which extensions to ignore. Quality Management only records extensions that appear in the Extensions to be Recorded list.

Figure 11. Inclusion List window

By default, the Extensions to be Recorded list displays an asterisk (*) with both Inbound and Outbound check boxes selected, meaning that all incoming and outgoing calls on all extensions in that Unified CM cluster will be recorded.

As soon as specific extensions are configured, recording is limited to those extensions only. You can use the wildcards (that is, “?” and “*”) to configure ranges of extensions.

- The asterisk (*) in a string can represent any quantity of any character, as long as the other characters in the string match.
- The question mark (?) in a string can be replaced by any character, but the length of the string must be exactly as represented.
Extensions can be further filtered by selecting the Inbound and/or Outbound check boxes to limit recordings to calls going in a specific direction. At least one of these check boxes must be selected for each extension you enter. Any changes you make to the inclusion lists take effect at the next recording client login.

A scroll bar is available if you add more than 9 extensions to the list. Use the scroll bar to move up and down the list.

The Configuration Setup utility filters included extensions from top to bottom. So, the extension at the top of the list is filtered first.

To rearrange the order of extensions that appear in the Extensions to be Recorded list, select an extension from the list and use the Up or Down arrow buttons to move the extension to the desired location.

The Extensions to be Excluded from Recording list displays extensions that will not be recorded.

Cisco MediaSense Recording Considerations

When configuring the Inclusion List for Cisco MediaSense Recording, consider the following:

- The entire call is recorded and saved on the MediaSense Recording cluster. When you configure the Inclusion List, Quality Management only downloads MediaSense recordings that appear in the Extensions to be Recorded list. Quality Management does not download MediaSense recordings that appear in the Extensions to be Excluded from Recording list.

Adding an Exception to the Inclusion List

Use this task to add an exception to the inclusion list.

TASK

1. On the appropriate Unified CM cluster tab of the Inclusion List window, click Add beneath the Extensions to be Recorded list.

   **STEP RESULT:** The Add Extension dialog box appears.

2. Enter an extension number.
You can enter the exact extension number or use the * or ? wildcards plus numbers to configure a range of extensions. For example:

<table>
<thead>
<tr>
<th>Enter This:</th>
<th>To Record:</th>
</tr>
</thead>
<tbody>
<tr>
<td>6124</td>
<td>Extension 6124.</td>
</tr>
<tr>
<td>61*</td>
<td>Any extensions that start with 61 and are of any length (for example, 6124, 61555, 613).</td>
</tr>
<tr>
<td>61??</td>
<td>Any extensions that start with 61 and are 4 digits long (for example, 6124, 6125, 6126).</td>
</tr>
</tbody>
</table>

3. Click OK.

**Excluding Extensions**

If you have a limited number of extensions you want to exclude from being recorded, you can configure the inclusion list to ignore only those extensions and record all others.

For example, if you want to record all extensions except for extensions 3411, 3412, and 3413, configure your inclusion list so that there is an asterisk in the Extensions To Be Recorded section, and extensions 3411, 3412, and 3413 listed in the Extension To Be Excluded From Recording section.

Extensions listed in the Extensions To Be Excluded From Recording section always take precedence over extensions listed in the Extensions To Be Recorded section. You cannot list the same extension (specifically or through the use of wildcards) in both sections. For example, 12* cannot be listed in both sections.
Upload Settings

Use Upload Settings window (Figure 12) to schedule uploading of peak and off-peak recordings from the agent desktops to the Voice and Screen servers, in addition to recording metadata to the Quality Management database. The Upload Controller uses the settings configured in this window to define when, where, and how many uploads can occur. DB Cleaner uses the settings configured in this window to define when to run DB Cleaner.

Figure 12. Upload Settings window

![Upload Settings window](image)

**NOTE:** Recordings for deactivated agents cannot be uploaded when an agent is deleted from the ACD. Ensure there are no recordings for that agent still on the agent PC in either the Daily or Staging folders. After Monitoring and Recording Services uploads all recordings for that agent, you can safely delete the agent from the ACD.

In order for any changes you make (except Database Cleanup Time) to take effect, you must restart the Upload Controller service.

Table 14. Upload Settings fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak Hours Begin</td>
<td>The time, in 24-hour format, when peak hours in the contact center begin. Must be between 00:00 and 23:59 in 1-minute increments. Default = 09:00.</td>
</tr>
<tr>
<td>Peak Hours End</td>
<td>The time, in 24-hour format, when peak hours in the contact center end. Must be between 00:00 and 23:59 in 1-minute increments. Default = 17:00.</td>
</tr>
</tbody>
</table>
### Field Description

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Peak Uploads</td>
<td>The maximum number of recordings that can upload simultaneously during peak hours. Must be a value from 1 to 100. This limit is set to conserve bandwidth on the network. When one upload completes, another takes its place, but there can be no more than the configured number uploading at any one time. Default = 5.</td>
</tr>
<tr>
<td>Max Off Hour Uploads</td>
<td>The maximum number of recordings that can upload simultaneously during off hours (the hours not specified as peak hours as defined by the Peak Hours Begin and Peak Hours End fields). Must be a value from 1 to 200. This limit is set to conserve bandwidth on the network. When one upload completes, another takes its place, but there can be no more than the configured number uploading at any one time. Default = 100.</td>
</tr>
<tr>
<td>Database Cleanup Time</td>
<td>The time when the DB Cleaner utility runs. This utility deletes expired recordings from the database. Must be between 00:00 and 23:59 in 1-minute increments. Choose a time when no uploads are occurring to reduce the load on the system. Default = 00:05.</td>
</tr>
<tr>
<td>Screen Server (Read-only)</td>
<td>(Read-only) Provides the IP address for the Screen server and the path to the screen recordings. If the AQM license is not installed, this does not appear. This section only appears after Voice and Screen services are installed on the Screen server.</td>
</tr>
<tr>
<td>Voice Server (Read-only)</td>
<td>(Read-only) Provides the IP address for the Voice server and the path to the audio recordings. This section only appears after Voice and Screen services are installed on the Voice server.</td>
</tr>
</tbody>
</table>

### Configuration Settings Used By Services

If you change the settings on the Upload Settings window, **Table 15** shows when your changes take effect.

**Table 15.** When services start using the changed configuration settings

<table>
<thead>
<tr>
<th>Service</th>
<th>Configuration Settings Applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upload Controller service</td>
<td>The next End of Day applies the configuration settings.</td>
</tr>
<tr>
<td>DB Cleaner service</td>
<td>The next cleanup time applies the configuration settings.</td>
</tr>
<tr>
<td>FTS webapp (Jetty service)</td>
<td>Start the Jetty service.</td>
</tr>
</tbody>
</table>
Upload Settings

Use Upload Settings window (Figure 12) to schedule uploading of peak and off-peak recordings from the agent desktops to the Voice and Screen servers, in addition to recording metadata to the Quality Management database. The Upload Controller uses the settings configured in this window to define when, where, and how many uploads can occur. DB Cleaner uses the settings configured in this window to define when to run DB Cleaner.

**NOTE:** Recordings for deactivated agents cannot be uploaded when an agent is deleted from the ACD. Ensure there are no recordings for that agent still on the agent PC in either the Daily or Staging folders. After Monitoring and Recording Services uploads all recordings for that agent, you can safely delete the agent from the ACD.

In order for any changes you make (except Database Cleanup Time) to take effect, you must restart the Upload Controller service.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak Hours Begin</td>
<td>The time, in 24-hour format, when peak hours in the contact center begin. Must be between 00:00 and 23:59 in 1-minute increments. Default = 09:00.</td>
</tr>
<tr>
<td>Peak Hours End</td>
<td>The time, in 24-hour format, when peak hours in the contact center end. Must be between 00:00 and 23:59 in 1-minute increments. Default = 17:00.</td>
</tr>
</tbody>
</table>
### Configuration Settings Used By Services

If you change the settings on the Upload Settings window, Table 15 shows when your changes take effect.

**Table 17.** When services start using the changed configuration settings

<table>
<thead>
<tr>
<th>Service</th>
<th>Configuration Settings Applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upload Controller</td>
<td>The next End of Day applies the configuration settings.</td>
</tr>
<tr>
<td>service</td>
<td></td>
</tr>
<tr>
<td>DB Cleaner service</td>
<td>The next cleanup time applies the configuration settings.</td>
</tr>
<tr>
<td>FTS webapp (Jetty</td>
<td>Start the Jetty service.</td>
</tr>
<tr>
<td>service)</td>
<td></td>
</tr>
</tbody>
</table>
Monitoring and Notification

Use the Monitoring and Notification window (Figure 14) to enable the monitoring and notification (MANA) service, and to configure the following information.

- Method used to notify administrators/supervisors of a system problem.
- Email address of the person(s) receiving notification, if you configure email as the means of notification.
- Trap destinations receiving notification, if you configure SNMP as the means of notification.
- If and how often a renotification of the problem should be sent out.
- Types of problems that will trigger notification.

**NOTE:** You can only change the information in the Monitoring and Notification window from the Quality Management Configuration Setup (PostInstall.exe) or Quality Management Administrator on the Base server. The Monitoring and Notification window in Quality Management Administrator on a client desktop is read-only. See “Configuration Setup” in the Installation Guide for more information on the Configuration Setup tool.

Connection information is saved locally to the Base server so the emergency user can still be notified using email if a major component (for example, the database) is down, and the other email addresses are not available. This allows the Quality Management administrator to edit the emails and allows Monitoring and Notification to notify one user when the configuration is not accessible.

**Figure 14.** Monitoring and Notification window
### Table 18. Monitoring and Notification fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use Monitoring/Notification Service</td>
<td>Enable this check box to use the MANA service. If enabled, at least one notification method (event viewer, SNMP, or email) must be enabled as well. This check box is enabled by default.</td>
</tr>
<tr>
<td>Polling Period</td>
<td>Sets the interval at which the MANA service checks for the selected notification triggers. Default = 10 minutes, Minimum = 0 minutes, Maximum = 1440 minutes (1 day). The timer starts when the last polling task is complete.</td>
</tr>
<tr>
<td></td>
<td><strong>NOTE:</strong> When you change the polling period, it takes one polling cycle before the new polling period goes into effect.</td>
</tr>
<tr>
<td>Use Event Viewer Notification</td>
<td>Select this check box to use the Event Viewer for displaying notification messages. This check box is enabled by default.</td>
</tr>
<tr>
<td>Use SNMP Notification</td>
<td>Select this check box to use SNMP for sending out notification messages. Note that the Windows SNMP Services must be installed to be able to use SNMP notification. See “Installing Windows SNMP Service” in the Installation Guide for more information.</td>
</tr>
<tr>
<td>SNMP Configuration</td>
<td>Click this button to configure the SNMP connection (enabled only on the Base server).</td>
</tr>
<tr>
<td>Use Email Notification</td>
<td>Select this check box to use email for sending out notification messages.</td>
</tr>
<tr>
<td>SMTP Configuration</td>
<td>Click this button to configure the SMTP email connection (enabled only on the Base server). See “Managing Notification Email Addresses” on page 56 for more information.</td>
</tr>
<tr>
<td>Email Addresses</td>
<td>The list of email addresses to which notification is sent. Maximum = 5 email addresses.</td>
</tr>
<tr>
<td>Add</td>
<td>Click this button to add an email address.</td>
</tr>
<tr>
<td>Remove</td>
<td>Click this button to remove an email address.</td>
</tr>
<tr>
<td>Edit</td>
<td>Click this button to edit the selected email address.</td>
</tr>
<tr>
<td>Never</td>
<td>Choose this option if you do not want to be renotified of a problem after the initial notification.</td>
</tr>
</tbody>
</table>
If you change the settings on the Monitoring and Notification window, Table 19 shows when your changes take effect.

**Table 19. When services start using the changed configuration settings**

<table>
<thead>
<tr>
<th>Service</th>
<th>Configuration Settings Applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>MANA service</td>
<td>The next polling period applies the configuration settings.</td>
</tr>
</tbody>
</table>

**Configuration Settings Used By Services**

If you change the settings on the Monitoring and Notification window, Table 19 shows when your changes take effect.

**Table 19. When services start using the changed configuration settings**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Every N Polling Periods</td>
<td>Choose this option and enter how frequently you want renotification to occur after the initial notification. For example, if you choose to be notified every 3 polling periods, you receive the initial notification on the first polling period the problem is detected, no notification the next two polling periods, and then another notification on the next polling period. This pattern will continue as long as the problem is detected.</td>
<td></td>
</tr>
<tr>
<td>Every Polling Period</td>
<td>Choose this option if you want renotification to occur every polling period after the initial notification.</td>
<td></td>
</tr>
<tr>
<td>Available Problems</td>
<td>The list of problems that can trigger notification if enabled by using the arrow keys to move them to the Enabled Problems section. By default only one problem, QM3002, is not enabled and in this list.</td>
<td></td>
</tr>
<tr>
<td>Enabled Problems</td>
<td>The list of enabled problems. By default, all problems except for QM3002 are enabled. If QM3002 is enabled, a Setup button appears in the Setup column. Click the Setup button to configure the Call Detail Record (CDR) task.</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** QM3002 is not supported with MediaSense

See “Configuring the QM3002 Notification Trigger” on page 60 for more information.

**Configuring the SNMP Settings**

Use this task to configure SNMP settings for notification.

**TASK**

1. Select the Use SNMP Notification check box, and then click SNMP Configuration.

**STEP RESULT:** The SNMP Configuration dialog box appears.
2. Do one of the following:
   - Click Add to add a new trap destination.
   - Select a listed trap destination and then click Edit to change the IP address.
   - Select a listed trap destination and then click Remove to delete IP address.

3. When you finish, click OK to save your changes.

**AFTER COMPLETING THIS TASK:**

Restart the Windows SNMP service to enable your changes.

**NOTE:** You must restart the SNMP service any time you make a change in trap destinations.

**Using Email Addresses for Notification**

Notifications can be sent to either the Event Viewer or in emails to specified recipients. To use email notification, enable the Use Email Notification check box and then configure up to 5 email addresses.

Notification emails will be sent from the sender email address configured in the SMTP Configuration dialog box. If you are using email notification, you must configure SMTP. This can be done only from the Quality Management server.

**Figure 15. SMTP Configuration dialog box**
Table 20. SMTP Configuration fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host Name/IP Address</td>
<td>Choose Host Name or IP Address, and then enter the hostname or IP address of the SMTP server.</td>
</tr>
<tr>
<td>Port</td>
<td>The port used by the MANA service to communicate with the SMTP server.</td>
</tr>
<tr>
<td>Use Authentication</td>
<td>Select this check box if authentication is needed to access the SMTP server.</td>
</tr>
<tr>
<td>User</td>
<td>The username needed to access the SMTP server.</td>
</tr>
<tr>
<td>Password</td>
<td>The password needed to access the SMTP server.</td>
</tr>
<tr>
<td>From Address</td>
<td>The email address from which all notification emails will come.</td>
</tr>
<tr>
<td>Emergency Address</td>
<td>The email address to which notification is sent if the Quality Management database is down when the MANA service attempts to get its initial configuration. The notification email addresses configured in the Monitoring and Notification window are stored in the Quality Management database, and thus will not be functional in the event that the Quality Management database is unavailable when the MANA service first starts. If the MANA service has already obtained a valid configuration from the Quality Management database, and then the Quality Management database goes down while the MANA service is running, the MANA service will use the valid configuration it already has. As a result, the notification that the Quality Management database is down will go to the configured email address, not to the emergency address.</td>
</tr>
</tbody>
</table>

**Configuring the SMTP Settings for Email**

Use this task to configure SMTP settings for email.

**TASK**

1. On the Base server, start Configuration Setup (PostInstall.exe).
2. Navigate to the Monitoring and Notification window.
3. Select the Use Email Notification check box, and then click SMTP Configuration.
**STEP RESULT:** The SMTP Configuration dialog box appears (Figure 16).

**Figure 16.** SMTP Configuration dialog box

4. Complete the fields, and then click OK.

**Managing Notification Email Addresses**

Use this task to manage notification email addresses.

**TASK**

- To add a notification email address, click Add in the Notification section. In the Add Email Address dialog box, type the email address to which you want notifications sent, and then click OK.

**STEP RESULT:** The new email address appears in the list.

- To remove a notification email address, select the email address from the list, click Remove, and then click OK.

**STEP RESULT:** The email address is removed from the list.

- To edit a notification email address, select the email address from the list, and click Edit. In the Edit Email Address dialog box, modify the email address you want to change, and then click OK.

**STEP RESULT:** The modified email address appears in the list.
Using Notification Triggers

Currently, only one notification trigger requires configuration: Problem ID QM3002. This trigger compares data in the Unified CM’s CDR Report (for Unified CM versions 7.x, 8.x) with the Quality Management database. Specifically, it compares the call records in the Unified CM with the call records in Quality Management. If there is a discrepancy, notification is sent.

**NOTE:** The MANA CDR Report (QM3002 notification trigger) does not support devices that are recorded by Cisco MediaSense. If your site is a mixed-recording environment where Server Recording or Network Recording and MediaSense Recording are used together, the CDR Report will not be accurate since MediaSense devices result in false positives.

By default, Problem ID QM3002 is disabled. The notification trigger does not have to be configured unless you enable that problem ID in the list of notification triggers.

**Table 21.** Configuration dialog box fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster &lt;number&gt; &lt;IP address&gt;</td>
<td>Displays the CDR connection information and ignored extensions associated with the cluster. The number of cluster tabs that appear depend on the number of clusters configured for this system. The fields listed under the Cluster tab applies only to that cluster.</td>
</tr>
<tr>
<td>Unified CM Version</td>
<td>Select the version of the Cisco Unified CM you are using.</td>
</tr>
<tr>
<td>Host Name/IP Address</td>
<td>Choose host name or IP address, and then enter the information for the Unified CM.</td>
</tr>
<tr>
<td>Username</td>
<td>(Unified CM 8.x) The name of the user with rights to access the CAR reports.</td>
</tr>
<tr>
<td>Password</td>
<td>(Unified CM 8.x) The password of the user with rights to access the CAR reports.</td>
</tr>
</tbody>
</table>
| Ignored Extensions     | Displays the list of ignored extensions. Quality Management does not send notifications about extensions that appear in this list. Select one of the following options to modify the extensions that appear in this list.  
  • Add—Add a new extension to the list.  
  • Remove—Delete an extension from the list.  
  • Edit—Modify a selected extension in the list. |
| Properties             | The fields listed in the Properties section apply to all clusters.           |
CDR Information Formats for the QM3002 Notification Trigger

You can specify in which format you want to display the CDR information in the Notification Trigger Configuration dialog box. Examples of the available formats are listed here.

In these reports, call durations are expressed in milliseconds.

If the agent is listed as “Unknown” it means the agent has not successfully logged in recent history on a PC that has the Desktop Recording service. It is probable that these agents are not configured correctly. Notifications for unknown agents are filtered out if the “Notify on users configured in QM” check box is enabled.

**Summary Only**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Misses</td>
<td>Lowest number of missed CDRs required to trigger notification</td>
</tr>
<tr>
<td>Notify on users that are logged in</td>
<td>When you select this option, Quality Management only generates notifications about users who are currently logged in to Workforce Optimization. This only applies to the Desktop Recording service.</td>
</tr>
<tr>
<td>Display Type</td>
<td>Choose one of the following options.</td>
</tr>
<tr>
<td></td>
<td>• Summary Only—displays 1 row per agent with misses that meet the above criteria.</td>
</tr>
<tr>
<td></td>
<td>• Details (Tab Delimited)—displays each missed CDR in tab delimited format.</td>
</tr>
<tr>
<td></td>
<td>• Details (Plain Text)—displays each missed CDR in text format.</td>
</tr>
</tbody>
</table>

**Summary Only**

<table>
<thead>
<tr>
<th>Ext</th>
<th>Agent</th>
<th>Found</th>
<th>Missed</th>
<th>% Missed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1545</td>
<td>JonesM</td>
<td>0</td>
<td>8</td>
<td>100%</td>
</tr>
<tr>
<td>2201</td>
<td>SmithB</td>
<td>0</td>
<td>15</td>
<td>100%</td>
</tr>
</tbody>
</table>
### Detail (Tab Delimited)

**Status Report**
- **Start Time:** 01/11/2008 15:23:41
- **End Time:** 01/11/2008 16:23:41

**Extensions with Missed Calls:**

<table>
<thead>
<tr>
<th>Ext</th>
<th>Agent</th>
<th>Found</th>
<th>Missed</th>
<th>% Missed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1545</td>
<td>JonesM</td>
<td>0</td>
<td>8</td>
<td>100%</td>
</tr>
<tr>
<td>2201</td>
<td>SmithB</td>
<td>0</td>
<td>16</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Missed Calls (all times in GMT):**

<table>
<thead>
<tr>
<th>CallID</th>
<th>Agent</th>
<th>Ext</th>
<th>ANI</th>
<th>DNIS</th>
<th>StartTime</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>16778554</td>
<td>JonesM</td>
<td>1545</td>
<td>2671</td>
<td>1545</td>
<td>01/11/2008 03:29:36</td>
<td>13 sec</td>
</tr>
<tr>
<td>16778560</td>
<td>JonesM</td>
<td>1545</td>
<td>2671</td>
<td>1545</td>
<td>01/11/2008 03:29:52</td>
<td>14 sec</td>
</tr>
<tr>
<td>16778561</td>
<td>JonesM</td>
<td>1545</td>
<td>2671</td>
<td>1545</td>
<td>01/11/2008 03:30:09</td>
<td>07 sec</td>
</tr>
<tr>
<td>16778594</td>
<td>JonesM</td>
<td>1545</td>
<td>2671</td>
<td>1545</td>
<td>01/11/2008 03:36:01</td>
<td>12 sec</td>
</tr>
<tr>
<td>16778596</td>
<td>JonesM</td>
<td>1545</td>
<td>2671</td>
<td>1545</td>
<td>01/11/2008 03:36:18</td>
<td>20 sec</td>
</tr>
</tbody>
</table>

### Detail (Plain Text)

**Status Report**
- **Start Time:** 01/11/2008 15:24:57
- **End Time:** 01/11/2008 16:24:57

**Extensions with Missed Calls:**

<table>
<thead>
<tr>
<th>Ext</th>
<th>Agent</th>
<th>Found</th>
<th>Missed</th>
<th>% Missed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1545</td>
<td>JonesM</td>
<td>0</td>
<td>8</td>
<td>100%</td>
</tr>
<tr>
<td>2201</td>
<td>SmithB</td>
<td>0</td>
<td>16</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Missed Calls (all times in GMT):**

- **Call ID = 16778554**
  - Agent = JonesM
  - Ext = 1545
  - ANI = 2671
  - DNIS = 1545
  - Start = 01/11/2008 03:29:36
  - End = 01/11/2008 03:29:49
  - Duration = 13 sec

- **Call ID = 16778560**
  - Agent = JonesM
  - Ext = 1545
  - ANI = 2671
  - DNIS = 1545
  - Start = 01/11/2008 03:29:52
  - End = 01/11/2008 03:30:06
  - Duration = 14 sec
Enabling or Disabling a Notification Trigger

**PREREQUISITE**

When enabling the QM3002 notification trigger:

- CDR must be correctly configured in the Unified CM Administration web application. For Unified CM 8.x, see Serviceability > Tools. In these versions, there is no CDR database. Instead, the CAR reports (CDR export) are used. Set up CAR so that it updates its information as frequently as possible, at a minimum, at less than 30-minute intervals. Create a CAR user and enter that user in the Quality Management CDR Configuration dialog.
- Archiving must be enabled in Quality Management.

This task describes how to enable and disable a notification trigger.

**TASK**

- To enable a task notification trigger, choose a trigger from the Available Problems section and click >. The trigger moves to the Enabled Problems section.
- To enable all task notification triggers, click >>. All triggers move to the Enabled Problems section.
- To disable a task notification trigger, choose a trigger from the Enabled Problems section and click <. The trigger moves to the Available Problems section.
- To disable all task notification triggers, click <<. All triggers move to the Available problems section.

Configuring the QM3002 Notification Trigger

This task describes how to configure the QM3002 notification trigger.

**TASK**

1. Click Setup next to the QM3002 notification trigger in the Enabled Problems section.

   **STEP RESULT:** The Configuration dialog box appears.

2. Select the version of the Cisco Unified CM you are using from the drop-down list.

3. Choose Host Name or IP Address, and then enter the information for the Unified CM.
4. Type the Unified CM username and password.

Additional Information: Enter the name and password of the user with rights to access the CAR reports.

5. Add the extensions that you do not want to receive notifications.

6. Configure the properties for the notification.

7. Click OK.

Managing Ignored Extensions

Task

- To add an ignored extension, click Add in the Ignored Extensions section, enter the extension in the field, and then click OK.
- To edit an ignored extension, select the connection you want to edit in CDR connections, click Edit, make the necessary changes in the Edit Extension dialog box, and then click OK.
- To remove an ignored extension, select an extension from the Ignored Extensions list and click Delete.

Examples of Notification Configuration Problems

The following setup examples illustrate what happens when you configure the Notification Trigger Configuration as described.

Setup 1

- Miss Threshold: 50%
- Minimum Misses: 5
- Notify on users configured in QM: Enabled
- Notify on users logged in: Enabled
**Agent**

Agent A has 8 matched calls and 2 missed calls. Agent A is properly configured and was logged in for the whole time.

Agent B has 6 matched calls, but 2 were made before he was logged in. Agent B is configured properly.

Agent C has 2 matched calls and 8 missed calls. Agent C is properly configured and was logged in the whole time.

**Effect**

Agent A: The missed percentage is \( \frac{2}{8 + 2} = 20\% \). No notification would be made because neither the Miss Threshold or the Minimum Misses criteria were met.

Agent B: No notification would be made because the Minimum Misses criterion (5) was not met.

Agent C: The missed percentage is \( \frac{8}{2 + 8} = 80\% \). Notification is made because the Miss Threshold and the Minimum Misses criteria were met.

**Setup 2**

<table>
<thead>
<tr>
<th>Miss Threshold: 100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Misses: 1</td>
</tr>
</tbody>
</table>

Notify on users configured in QM: Enabled

Notify on users logged in: Disabled.

**Agent**

Agent A is configured in Quality Management but does not have the Desktop Recording service installed, or the phone is not daisy-chained properly.

**Effect**

Notification will be made on Agent A’s extension, with the agent listed as “Unknown” because there is no cross-reference between the agent and extension until the Desktop Recording service is configured.

**NOTE:** Matching the CDR or CAR Report with Quality Management is not 100% accurate. CDR data can be out of sync with Quality Management, or certain call scenarios might yield false positives. It should not be used for compliance.
NOTE: Agent team association and whether a team is configured for archiving are determined from the time the CDR task is run, not from the time of the call in question. This could result in either false positives or false negatives if a team's archiving status changes, or if an agent's team membership changes during the period the CDR task is examining.

When a notification is received, look at the DNs/Agents that show missed calls. A large number of agents with missed calls might indicate a Quality Management service failure. The possible services with issues are:

- Recording CTI service.
- Upload Controller.
- DB Proxy service (on the Database server).

A 100% miss percentage for a single agent might indicate a failure in the Desktop Recording service. If notifications are occurring frequently with less than 100% missed for a small number of agents, the thresholds might need to be adjusted to minimize unnecessary notifications. Even a high threshold (100%) will notify on moderate and major outages.
**RTP Filters**

Use the Real-time Transport Protocol (RTP) Filters window (Figure 17) to configure Quality Management for filtering IPs and/or ports from the RTP stream for Endpoint Recording. For example, use RTP filters when Quality Management is installed in an environment where Cisco Agent Desktop is present and you want to avoid getting duplicate RTP packets when a Cisco Desktop Supervisor is monitoring or recording calls.

**NOTE:** You only need to complete the RTP Filters window if you are configuring Quality Management for Desktop Recording. RTP filters are not required for MediaSense Recording.

**Figure 17. RTP Filters window**

![RTP Filters window](image)

**Table 22. RTP Filters fields**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTP Filter Type</td>
<td>The type of RTP filter in use. The following options are available.</td>
</tr>
<tr>
<td></td>
<td>• IP Port—If selected, the RTP Filter IP/Port field is limited to valid IP port ranges (1-65535).</td>
</tr>
<tr>
<td></td>
<td>• IP Address—If selected, the RTP Filter IP/Port field is limited to valid IP addresses (IPv4).</td>
</tr>
<tr>
<td></td>
<td><strong>NOTE:</strong> Wildcards and ranges are not allowed in this field.</td>
</tr>
</tbody>
</table>
### RTP Filter Guidelines

Use the following guidelines when adding or editing RTP filters.

- Cisco Agent Desktop (CAD) ports appear in the list of RTP filters by default. If you are using CAD, you must also enter the IP address of the CAD Recording server.
- The number of rows that can appear in the list of RTP filters is limited to 1000.
- Do not enter the same filter twice. An error appears if you enter the same filter twice.

### Managing RTP Filters

**Task**

- To add an RTP filter, click Add on the RTP Filters window, choose IP Port or IP Address from the RTP Filter Type drop-down list, enter the port number or IP address in the TRP Filter IP/Port field, and then click OK.

  **Step Result:** The new RTP filter appears in the list of RTP filters.

- To edit an RTP filter, select an RTP filter from the list, click Edit on the RTP Filters window, choose IP Port or IP Address from the RTP Filter Type drop-down list, enter the port number or IP address in the TRP Filter IP/Port field, and then click OK.
STEP RESULT: The modified RTP filter appears in the list of RTP filters.

- To delete an RTP filter, select an RTP filter from the list, and then click Delete on the RTP Filters window.

STEP RESULT: The RTP filter is removed from the list of RTP filters.

Status

The Status window reports the version of the installed Quality Management components.

Configuration Settings Used By Services

If you change the product version, Table 24 shows when your changes take effect.

Table 24. When services start using the changed configuration settings

<table>
<thead>
<tr>
<th>Service</th>
<th>Configuration Settings Applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upload Controller service</td>
<td>Periodically check for a version mismatch.</td>
</tr>
</tbody>
</table>
Record Server Configuration

Use the Record Server Configuration node to configure devices for MediaSense, Server Recording, and Network Recording.

NOTE: You do not need to configure devices if you are only using Desktop Recording (Endpoint).

Server Recording and Network Recording Considerations

You can enable Server Recording and Network Recording for a device from the Record Server Configuration node for the following types of agents:

- Agents who work different shifts and share a desk (hot desking).
- Agents who log into a phone (Extension Mobility).
- Agents using Citrix or Microsoft Terminal Services thin clients (audio and screen recording).
- Agents using just a phone, and no PC (audio recording only).

Server Recording and Network Recording records the extensions that you configure for Server Recording or Network Recording in a similar way to those that use the Desktop Recording service (Endpoint).

Note that Server Recording or Network Recording is not restricted to the time a user is logged in. As long as the agent’s phone is configured for Server Recording or Network Recording, the agent can be recorded.

Network Recording allows supervisors and managers to monitor live calls for agents using phones configured Network Recording.

NOTE: You cannot monitor the default user, even if they are recorded using Network Recording.

Server Recording and Network Recording have the following limitation:

- A device cannot be registered for Server Recording and Network Recording at the same time. You can, however, change the configuration from Server Recording to Network Recording, or change a configuration from Network Recording to Server Recording.
Cisco MediaSense Recording Limitations

Cisco MediaSense Recording has the following limitations:

- Cisco does not support Live Monitoring with Cisco MediaSense Recording.
- Cisco does not support the Recording API (tag, delete, metadata, pause, resume, restart, login, or logout) with Cisco MediaSense Recording.
- MediaSense only supports a single MediaSense cluster.
- Cisco does not support Hot Desking with Calabrio MediaSense Recording.
- Cisco does not support Extension Mobility with Cisco MediaSense Recording.
- Cisco does not support Desktop Recording as a backup method for Cisco MediaSense Recording.
- Cisco does not support SRTP with Cisco MediaSense Recording.
- Cisco does not support MANA CDR (QM3002 notification trigger) with Cisco MediaSense Recording. The MANA CDR report does not support devices that are recorded by Cisco MediaSense. If your site is a mixed-recording environment where Server Recording or Network Recording and MediaSense Recording are used together, the CDR report will not be accurate since MediaSense devices result in false positives.
- Cisco does not support Direct Outbound Recordings (Blog recordings) with Cisco MediaSense Recording.
- All CUBE MediaSense calls are treated as inbound calls.
VoIP Devices

The VoIP Devices window (Figure 18) allows you to view and enable VoIP devices.

**NOTE:** Extension Mobility is not supported.

The VoIP Devices window supports VoIP devices in the Unified CM clusters for MediaSense Recording, Server Recording (SPAN), or Network Recording.

The first time you access the VoIP Devices window, it is empty. You must search the devices configured in Unified CM for the ones you want to enable for MediaSense Recording, Server Recording, or Network Recording. See “Enabling VoIP Devices for Recording” on page 77 for more information.

**Figure 18. VoIP Devices window**

**Table 25. VoIP Devices window fields**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Find devices of type</td>
<td>The type of device you want to locate. You can choose from the following:</td>
</tr>
<tr>
<td></td>
<td>• All Types</td>
</tr>
<tr>
<td></td>
<td>• Phone</td>
</tr>
<tr>
<td></td>
<td>• Remote Agent Port</td>
</tr>
<tr>
<td></td>
<td>• User Profiles</td>
</tr>
<tr>
<td>In Cluster</td>
<td>The IP address for the cluster.</td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Where</td>
<td>The name of the device or extension for the device. You can choose from the following:</td>
</tr>
<tr>
<td></td>
<td>• Device Name—Search devices by the name of the device.</td>
</tr>
<tr>
<td></td>
<td>• Extension—Search devices by the extension associated with the device.</td>
</tr>
<tr>
<td>Matches</td>
<td>A string of text used to narrow the search for the device name or extension. You can use wildcards * and question marks ? in this field, in addition to a specific string.</td>
</tr>
<tr>
<td></td>
<td><strong>NOTE:</strong> This field is case sensitive.</td>
</tr>
<tr>
<td>Device Name</td>
<td>The name of the device. When entering the name of the device consider the following rules:</td>
</tr>
<tr>
<td></td>
<td>• If a device has two extensions associated with it, two entries appear in the search results table.</td>
</tr>
<tr>
<td></td>
<td>• If the device is a Cisco IP Communicator, type the MAC address for the user’s PC. This text field is case-insensitive. The Device Name must match the MAC address that packets travel through.</td>
</tr>
<tr>
<td>Device Type</td>
<td>The type of device. The device types are:</td>
</tr>
<tr>
<td></td>
<td>• Phone</td>
</tr>
<tr>
<td></td>
<td>• Remote Agent Port</td>
</tr>
<tr>
<td></td>
<td>• User Profile</td>
</tr>
<tr>
<td>Cluster</td>
<td>The cluster’s IP address.</td>
</tr>
<tr>
<td>Extension</td>
<td>The extension associated with the device. If a device has two extensions associated with it, two entries appear in the search results table. If you select the Enabled Check box for one extension, Quality Management also selects the other extension.</td>
</tr>
<tr>
<td>Agent</td>
<td>The agent’s name. Your choices are:</td>
</tr>
<tr>
<td></td>
<td>• User Login Required—Choose this option if you want to configure the device for Hot Desking. If you choose this option, the device will not be recorded until an agent logs in using the Recording API.</td>
</tr>
<tr>
<td></td>
<td><strong>NOTE:</strong> User Login Required is not supported for MediaSense Recording.</td>
</tr>
<tr>
<td></td>
<td>• &lt;Last name, first name, (user ID)&gt;—Choose this option to assign a specific agent or the default hoteling agent to the device.</td>
</tr>
<tr>
<td>Monitor Server</td>
<td>The IP address of the Monitor server associated with this device. If a Monitor server is not applicable, the field displays No Configuration. For example, you cannot associate a Monitor server with a Remote Agent Port or User Profile.</td>
</tr>
</tbody>
</table>
### Record Server Configuration

#### VoIP Devices

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recording Server</td>
<td>The IP address of the Recording server associated with this device. If a Recording server is not applicable, the field displays No Configuration. For example, you cannot associate a Recording server with a User Profile.</td>
</tr>
</tbody>
</table>
| Recording Type       | The recording type associated with this device. You can choose from the following:  
                        • Server Recording—Choose this option if you are using Server Recording (SPAN).  
                        • Network Recording—Choose this option if you are using Network Recording. |

**Table 26. VoIP Devices Window buttons**

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
</table>
| Find                          | When clicked, locates every device that matches the search criteria.  
                                 **NOTE:** Clicking Find will not do anything unless the VoIP Devices window is populated first. See “Enabling VoIP Devices for Recording” on page 77 for more information. |
| Configure Monitor Server      | When clicked, Configure Monitor Server allows you to assign the IP address for the Monitor server to one or more devices.  
                                 **NOTE:** You must select the devices before clicking the button.  
                                 You cannot configure the Monitor server for a Remote Agent Port device or User Profile device. |
| Configure Recording Server    | When clicked, Configure Recording Server allows you to assign the IP address for the Recording server to one or more devices.  
                                 **NOTE:** You must select the devices before clicking the button.  
                                 You cannot configure the Recording server for a User Profile device. |
<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configure Recording Type</td>
<td>When clicked, Configure Recording Type allows you to assign a recording type to one or more devices.</td>
</tr>
<tr>
<td></td>
<td><strong>NOTE:</strong> You must select the devices before clicking the button.</td>
</tr>
<tr>
<td></td>
<td>• Server Recording—Choose this option if you are using Server Recording (SPAN).</td>
</tr>
<tr>
<td></td>
<td>• Network Recording—Choose this option if you are using Network Recording.</td>
</tr>
<tr>
<td></td>
<td>• Multiple Registration—Choose this option if you are using Multiple Registration method. This method allows you to programmatically add participants to an existing call.</td>
</tr>
<tr>
<td></td>
<td>• Single Step Conference—Choose this option if you are using Single Step Conferencing method. This method allows you to choose register up to three devices at a single, softphone-enabled extension.</td>
</tr>
<tr>
<td></td>
<td>• None—Choose this option if your are using no recording type.</td>
</tr>
<tr>
<td></td>
<td>• Unknown—Choose this option if the recording type is unknown.</td>
</tr>
<tr>
<td></td>
<td>• End Point—Choose this option if you are using Endpoint recording.</td>
</tr>
<tr>
<td></td>
<td>• MediaSense Recording—Choose this option if your are using MediaSense Recording.</td>
</tr>
<tr>
<td></td>
<td>You cannot configure the recording type for a User Profile device.</td>
</tr>
<tr>
<td>Configure Agent</td>
<td>When clicked, Configure Agent allows you to assign one of the following options to the device.</td>
</tr>
<tr>
<td></td>
<td>• Default Hoteling Agent—An agent logs into the device using the login information for the default hoteling agent.</td>
</tr>
<tr>
<td></td>
<td>• User Login Required—An agent logs into the device using their own login information.</td>
</tr>
<tr>
<td></td>
<td><strong>NOTE:</strong> User Login Required is not supported for MediaSense Recording.</td>
</tr>
<tr>
<td>Remove From Configuration</td>
<td>When clicked, Remove From Configuration allows you to remove one or more devices from MediaSense Recording, Server Recording, and Network Recording.</td>
</tr>
<tr>
<td></td>
<td><strong>NOTE:</strong> You must select the devices before clicking the button.</td>
</tr>
<tr>
<td>Enable Devices for Recording</td>
<td>When clicked, Enable Devices for Recording allows you to search for devices in Unified CM and enable those devices for recording in Quality Management.</td>
</tr>
<tr>
<td>Synchronize Devices With Clusters</td>
<td>When clicked, Synchronize Devices With Clusters allows you to synchronize devices changes from Unified CM with the list of devices in the VoIP Devices window. It removes any devices that were deleted in Unified CM and updates extensions for modified devices.</td>
</tr>
</tbody>
</table>
VoIP Devices for Server Recording

For Server Recording with Unified CM clusters, associate the following items with the VoIP device:

- An agent.
- The IP address for the Monitor server.
- The IP address for the Recording server.
- A recording type of “Server Recording.”

VoIP Devices for Network Recording

For Network Recording with Unified CM clusters, associate the following items with the VoIP device:

- An agent.
- The IP address for the Recording server.
- A recording type of “Network Recording.”

VoIP Devices for MediaSense Recordings

For MediaSense Recordings, associate the following items with the VoIP device:

- An agent.
- The IP address for the Recording server.
- A recording type of “MediaSense Recording.”
Licensing and VoIP Device Configuration Considerations

Table 27 displays VoIP device configuration examples.

<table>
<thead>
<tr>
<th>Example</th>
<th>Phone Extension</th>
<th>User</th>
<th>License</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1234</td>
<td>5000.1234</td>
<td>AQM or AQMA</td>
</tr>
<tr>
<td>2</td>
<td>2345</td>
<td>5000.2345</td>
<td>QM or QMA</td>
</tr>
<tr>
<td>3</td>
<td>3456</td>
<td>Default User</td>
<td>AQM or AQMA</td>
</tr>
<tr>
<td>4</td>
<td>4567</td>
<td>User Login Required</td>
<td>--</td>
</tr>
<tr>
<td>5</td>
<td>5678 (Extension Mobility)</td>
<td>5000.3456</td>
<td>AQM or AQMA</td>
</tr>
<tr>
<td>6</td>
<td>Hot Desking</td>
<td>5000.4567</td>
<td>AQM or AQMA</td>
</tr>
<tr>
<td>7</td>
<td>6789 (Extension Mobility)</td>
<td>5000.5678</td>
<td>QM or QMA</td>
</tr>
</tbody>
</table>

When configuring VoIP devices and assigning licenses to users, consider the following:

- If all licenses are invalid at startup, no recording will occur.
- If all licenses become invalid at once, Quality Management stops recording all user calls after the first recording server sync on the next day (between 12am and 12:05am).
- If any one license (for example, AQM) is invalid, Quality Management will:
  - Stop recording phones assigned to users with the AQM license. (Example 1 stops recording calls and example 2 continues recording calls.)
  - Continue recording calls for Default Users. (Example 3 will continue recording calls.)
  - Log out Extension Mobility users. (Quality Management will stop recording calls for example 5 is assigned to example 1. If example 5 is assigned to example 2 or example 3, then calls to that phone will be recorded, but assigned to the original user.)
  - Log out Extension Mobility users who are logged in over a defined user that is no longer licensed. (If example 7 is logged in over example 1, Quality Management will stop recording since the original user is no longer licensed.)
  - Log out Hot Desking users. (If example 6 is logged in on any phone, the user will be logged out and Quality Management will stop recording unless the original user is the Default User.)
• If licenses are invalid, the recording server will check the licensing server every sync until they are valid. When a license is valid, the recording server waits until the first recording server sync on the next day to validate the license again.
• If the recording server fails to connect to the license server, the recording server uses the last value available.
• If the licensing server is unavailable at system startup, the recording server will wait until it has licenses before creating any users.
• If licenses are valid, the recording server only re-checked during the first sync of every day. If the license server is not available at this time, the recording server will check the license server the next day.
• The recording server checks licenses at startup and during the first recording server sync of the day.

Guidelines for Configuring VoIP Devices

Consider the following when you configure a VoIP device for MediaSense Recording, Server Recording, and Network Recording.

The VoIP Devices window only allows 64 characters in the fields. This effects the number of extensions you can configure for a VoIP devices. For example, you can configure up to 12 extensions of 4 digits each for a VoIP devices and not exceed the 64 character limitation.

5555, 5556, 5557, 5558, 5559, 5560, 5561, 5562, 5563, 5564, 5565, 5566

Hot Desking

Hot desking is a situation where one desk is shared between several people who use the desk at different times. This work surface can be an actual desk or just a terminal link. Companies use hot desking when not all the employees are in the office at the same time, or employees are not regularly in the office for very long.

Hot desking includes the following scenarios:

• Using Extension Mobility.
• Sharing the same extension.
• Logging into the Recording API—See the API Programmers User Guide for more information on the Recording API.

NOTE: Cisco does not support Hot Desking with Calabrio MediaSense Recording.
Points to Remember

Remember the following points when you configure a device for hot desking:

- When configuring hot desking for an agent with a Quality Management license or Call Recording license, you must ensure that the Login and Logout commands for the Recording API go directly to the Recording server. The Desktop Recording services will not accept Login and Logout commands from the Recording API.
- If an agent is already logged in to a different device on the same Recording Server, Quality Management logs the agent out of the old device when the agent logs into the new device.
- If you assign a device to an agent by selecting an option in the Agent column from the VoIP Devices window:
  - The agent cannot use the Recording API to log into the same Recording server assigned to the device (the login will be ignored).
  - The agent can use the Recording API to log into a different Recording Server that is assigned to another device. Quality Management records both devices for the agent.
- If an agent is on a call when another login request comes in, that call is ended. Quality Management logs the agent out, creates a new user for that extension, registers the device with the CTI, and records all subsequent calls for that extension.
- If an agent issues a logout command using the Recording API and there is an active call for that extension, Quality Management ends the call, and logs out the user.
- If an agent issues a login command using the Recording API, and the username and extension matches the username and extension for an agent who is currently logged in, Quality Management ignores the request.
- The Desktop Recording services supports hot desking, provided the agents use their own accounts to log in and log out of their client machine.
- If you have more than one default user, you must specify a unique Contact XML file for each default user (for example, skill_target_id-CONTACT-upload_time-agent_mac.XML).

Synchronization Issues

The following list describes the synchronization issues with the devices listed in the VoIP Devices window.

- An agent configured for a device could be deactivated, lose the agent or knowledge worker role, or become unlicensed. In these cases, the agent can no longer be recorded, and Quality Management Administrator removes their
association with their device. Every time the VoIP Devices window appears and loads the data, the agents are automatically synchronized. The VoIP Devices window displays a list of the invalid agents that will be removed from their associated devices.

- Someone modifies or removes a configured device in the Unified CM cluster. When you click the Synchronize Devices with Clusters button, it updates the modified devices and then displays a list of devices configured for Server Recording but no longer configured in a cluster. You can choose to remove the devices from the VoIP Devices list.

**Playback Issues**

Recording playback can fail when you change the agent’s recording server. This situation applies to the MediaSense Recording, Server Recording, and Network Recording configuration. In this situation, the old recording server no longer recognizes the agent that was previously associated with the recording server. So the old recording server does not send any remaining recordings for that agent to the Upload Controller. Playing a recording fails because the Upload Controller does not know about the calls received by the agent when the agent was configured for the other recording server.

The recordings on these servers will not be available for playing until after they are uploaded to the Upload Controller. Cisco recommends only changing a user’s configured device after business hours to avoid playback errors.

**Enabling VoIP Devices for Recording**

Use this task to enable VoIP devices for recording.

**TASK**


   **ADDITIONAL INFORMATION:** You must click this button before you do anything else on this window to populate the list of VoIP devices.

2. Choose one of the following options.

   - To find all the devices in the available cluster, click Find.

   **NOTE:** By default, the search criteria are set up to return every device in a selected cluster when you click Find.

   - If the cluster has many devices, you can search for devices that match a certain criteria. You can search by a combination of device type (Phone, Remote Agent Port, User Profile, or All Types), cluster IP address, device name, or extension.
NOTE: You can type wildcard characters (*) or specific numbers in the Matches field. This field is case sensitive.

STEP RESULT: A list of all of the devices that are in the cluster appears.

If a device has two extensions associated with it, two entries appear in the search results table. If you select the Enabled check box for one extension, Quality Management Administrator also selects the other extension.

3. To sort by a particular column, click the column heading.

4. Choose one of the following options:

   - To select a specific device, click its row.
   - To select additional devices, press and hold the Ctrl key while clicking the other rows.

5. When you are done selecting devices, click Check Selected, and then click OK.

ADDITIONAL INFORMATION: If there were several monitoring and recording servers, you would need to assign them to the devices manually.

STEP RESULT: The devices you selected appear on the list of VoIP devices. Notice that Quality Management has automatically assigned monitoring and recording services to these devices.

Filtering VoIP Devices

TASK
1. On the VoIP Devices window, choose the type of device you want to locate from the Find devices of type drop-down list. Your choices are:

   - All Types
   - Phone
   - Remote Agent Port
   - User Profiles

2. Choose the IP address for the cluster from the In Cluster drop-down list.

3. Enter the name of the device or extension for the device in the Where drop-down list.

ADDITIONAL INFORMATION: You can use wildcards * and question marks ? in this field, in addition to a specific string.
4. Click Find.

STEP RESULT: The VoIP Devices window displays a list of devices that match the search criteria.

Configuring Devices for VoIP

The general procedure for configuring devices for VoIP monitoring is as follows:

TASK
1. Enable the devices for recording.

   ADDITIONAL INFORMATION: See “Enabling VoIP Devices for Recording” on page 77 for more information.

2. Find the devices to be configured.

   ADDITIONAL INFORMATION: See “Filtering VoIP Devices” on page 78 for more information.

3. Assign a device to an agent.

4. Assign a device to a Recording server.

5. Assign a device to a Monitor server.

6. Assign a device to a recording type.

7. Click Save.

Extension Mobility

When configuring agents for extension mobility, you need to ensure the following:

- A user profile is associated with each agent.
- Every phone an agent can log into is associated with a Recording server.

When an agent logs in to a phone, their calls are recorded by the Recording server assigned to their phone.

When configuring agents for Extension Mobility, consider the following:

- If the user is on a phone call when they log out of a device, the recording will stop.
• If you change the user profile (for example, the extension) in Unified CM, you must click the Synchronize with Clusters button in the VoIP Devices window for the change to take effect.

• If you change the user profile in Unified CM and synchronize the databases in Quality Management Administrator, current calls on that device might be stopped and restarted.

**NOTE:** Cisco does not support Extension Mobility with Cisco MediaSense Recording.

See “Configuring a User for Extension Mobility” on page 80 for more information.

**Configuring a User for Extension Mobility**

**TASK**

1. From the VoIP Devices window, select an user from the Agent drop-down list for the Extension Mobility profile (Device Type is User Profile) created in Cisco Unified CM.

2. Assign the agent’s device to either the default Hoteling agent or User Login Required from the Agent drop-down list.

   **ADDITIONAL INFORMATION:** To ensure all calls are recorded on the phone, choose the default Hoteling agent from the Agent drop-down list.

3. Assign the device to a Recording server.

4. Assign the device to a Monitor server.

5. Assign the device to a recording type.

6. Click Save.

**Managing VoIP Devices**

**PREREQUISITE**

Follow the steps as described in “Enabling VoIP Devices for Recording” on page 77 to populate the list of VoIP Devices.

**TASK**

• To update the devices, click Synchronize Devices with Clusters.

   **ADDITIONAL INFORMATION:** Whenever you modify a VoIP device in Unified CCX, the modifications do not go into effect until the Unified CCX and Quality Management databases synchronize.
• To assign multiple devices to a Monitor Server, select the devices from the list, click Configure Monitor Server, select the IP address for the Monitor Server from the drop-down list, click OK, and then click Save.
  - Use Shift + Click to select contiguous rows in the list of devices.
  - Use Ctrl + Click to select non-contiguous rows in the list of devices.

• To assign multiple devices to a Recording Server, select the devices from the list, click Configure Recording Server, select the IP address for the Recording Server from the drop-down list, click OK, and then click Save.

• To assign multiple devices to a recording type, select the devices from the list, click Configure Recording Type, select the appropriate recording type from the drop-down list, click OK, and then click Save.

• To assign multiple devices to an agent, select the devices from the list, click Configure Agent, choose the agent from the drop-down list, click OK, and then click Save.

**ADDITIONAL INFORMATION:** You can only assign the following agents to multiple devices.

  - Default Hoteling Agent—An agent logs into the device using the username and password for the default hoteling agent.
  - User Login Required—An agent logs into the device using their own login information.

• To assign a device to an agent, double-click the device’s Agent field, select the agent from the drop-down list, and then click Save.

**ADDITIONAL INFORMATION:** You can type text in the drop-down field to filter the list of agents to show only agents whose first name, last name, or Windows login begins with the entered text.

If that agent is already assigned to a device, you are asked if you want to switch the association to the current device.

  - If you select Yes, the agent will be assigned to this device and removed from the other device.
  - If you select No, no association is made and you can select another agent to assign to this device.

• To assign a device to a Monitor Server, double-click the device’s Monitor Server field, choose the IP address for the Monitor Server from the drop-down list, and then click Save.

**ADDITIONAL INFORMATION:** You cannot associate a Monitor server with a Remote Agent Port (CTI port) device because the server for the Monitor service must be found at run-time.
• To assign a device to a Recording Server, double-click the device’s Recording Server field, choose the IP address for the Network Recording service from the drop-down list, and then click Save.

• To assign a device to a recording type, double-click the device’s Recording Type field, select the appropriate recording type from the drop-down list, and then click Save.

• To synchronize devices changes from Unified CM with the list of devices in the VoIP Devices window, click Synchronize Devices With Clusters, and then click OK.

• To create or edit the default hoteling agent, click Create/Edit Default Hoteling Agent, complete the fields and then click OK.

• To remove one or more devices, select the devices from the list, click Remove From Configuration, click Yes, and then click Save.
Personnel

Use the Personnel node to:

- Create groups.
- Create knowledge worker teams.
- Assign teams to groups.
- Assign groups to managers.
- Link AD users to ACD users and Quality Management users (in Active Directory systems).
- Configure ACD users.
- Create Quality Management users.
- Assign manager, evaluator, and archive user roles to ACD users.
- Assign knowledge worker, supervisor, manager, evaluator, and archive user roles to Quality Management users.

User Roles and Privileges

Scope refers to the data (such as recordings and evaluations) that a user can view. For example, the scope of a supervisor who has one team of knowledge workers consists of the recordings and evaluations for those knowledge workers. The scope of a manager who has several groups of teams of agents and knowledge workers consists of the data for all of those agents and knowledge workers.

A role is a collection of privileges. A user can have one or many roles. When the user logs into Workforce Optimization, the user can access all roles and privileges assigned to that user. For example, if a user is assigned to both the evaluator and manager roles, the user has access to all privileges assigned to the evaluator and manager roles.

A privilege is the permission to perform a transaction. For example, managers have the ability to access archive recordings for their groups.

Quality Management defines a user’s scope by roles and privileges.
Administrator

The administrator has the following privileges:

- Access Quality Management Administrator and configure the system and users for Quality Management.
- Access Quality Management in Calabrio ONE Workforce Management and configure the Dashboard view by role (lock down the Dashboard).

Administrator Considerations

The administrator role was created when you installed/upgraded Quality Management. The administrator does not require a license to log into Quality Management. You only need to assign a license to the administrator if you want to record the administrator.

The administrator is a Quality Management user not an ACD user or AD Account user.

**NOTE:** Do not configure an ACD user or AD Account user with administrator as a username. If an ACD user or AD Account user exists with administrator as a user name, you can assign a license to this user and record the user’s calls, but this user cannot log into Quality Management. Duplicate usernames default to the Quality Management user, in this case administrator.

Agents and Knowledge Workers

Agents and knowledge workers have the following privileges.

- View their own quality scores and the aggregate quality scores for their team and group on a dashboard.
- Export recordings within their scope, if enabled.
- Review evaluation results on their own scored contacts.
- Enter comments on their scored evaluations.
- View their own historical reports.
- Access recordings of their own contacts, if enabled.

**NOTE:** Agents who are not assigned to a team can still log into Workforce Optimization and access their contact recordings.
Supervisors

Supervisors have the following privileges:

- View dashboard with their team’s and group’s quality scores and details of individual agents within their team.
- Enter comments on their team’s evaluations.
- Export recordings within their scope, if enabled.
- Approve evaluations for agents in their teams, if required.
- Designate recordings in their teams to be retained as Training or HR recordings.
- View agent and team-level historical reports.
- Evaluate contacts for their team, if enabled to do so.
- Access contact recordings for their team.

Managers

Managers have the following privileges:

- View dashboard with their group’s quality scores and details of individual teams within their group.
- Review evaluation results on all of their group’s scored contacts.
- Enter comments on their group’s evaluations.
- Approve evaluations for agents in their groups, if required.
- Export recordings within their scope, if enabled.
- Designate contacts for retention as Training contacts.
- View agent, team, group, and enterprise-level historical reports.
- Evaluate contacts for their group, if enabled to do so.
- Access contact recordings for their group.

Archive Users

Archive users have the following privileges:

- Search, review, and export contact recordings for all of the agents and knowledge workers across the enterprise.
- Access contact recordings for deleted users.
Evaluators

Evaluators have the following privileges:

- Select, review, and evaluate contact recordings for all groups.
- Review recordings and add comments to evaluations for agents and knowledge workers in all groups.
- Approve evaluations, if required.
- Export recordings within their scope, if enabled.
- Update previously-scored evaluations.
- Designate contacts for retention as Training or HR contacts.

User Administration

The User Administration window allows you to:

- Create and configure users.
- Assign the knowledge worker, supervisor, manager, evaluators, and archive user roles.
- Make group and team assignments.
- License the users using the license added from Site Configuration.

The User Administration window displays one of two versions, depending on whether or not you configure your system to interface with Microsoft Active Directory.

Active Directory Systems

In an Active Directory system, there are three types of users:

- **Active Directory Account.** A user set up in Microsoft Active Directory. All users in Quality Management must be in Active Directory. You can only configure a user in Quality Management if that user has a first and last name in Active Directory.

- **ACD User.** A user set up as an agent and/or supervisor and assigned to a team in Unified CCX. You can assign an ACD user to manager, evaluator, and archive user roles in Quality Management.

- **Quality Management User.** A non-ACD user created in Quality Management.

**NOTE:** Whenever you modify a user in Unified CCX (for example, change a user’s name), the modifications do not appear in Quality Management until synchronization occurs. The synchronization
process runs automatically at 10-minute intervals. If necessary, you can manually synchronize these databases (see “Synchronizing Databases” on page 14).

You must link an ACD user to an Active Directory account within Quality Management to assign roles to that user in Quality Management.

The User Administration window (Figure 19) has tabs that sort users into categories according to their roles and status within Quality Management.

Figure 19. User Administration window (Active Directory system)

Table 28 describes the buttons.

Table 28. User Administration buttons

<table>
<thead>
<tr>
<th>Tab</th>
<th>Description</th>
</tr>
</thead>
</table>
| Link AD to ACD Users | Assign an ACD user to an Active Directory account.  
  **NOTE:** Once you link an Active Directory to an ACD account, you can only unlink the Active Directory account by deleting the agent from the Unified CCX system. |
| Create Users      | Add a non-ACD user. Non-ACD users are users that exist only in Quality Management and Active Directory. Non-ACD users do not exist in Unified CCX. Like ACD users, you must link non-ACD users to an Active Directory Account to be part of the Quality Management system. |
Table 29 describes the tabs.

<table>
<thead>
<tr>
<th>Tab</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>License Users</td>
<td>Assign a user with a license. See “License/Unlicense Users” on page 102 for more licensing information.</td>
</tr>
<tr>
<td>Edit User</td>
<td>Configure the user properties.</td>
</tr>
<tr>
<td>Delete User</td>
<td>Remove a non-ACD user. See “Deleting a Unified CCX User” on page 103 for information on deleting and ACD user.</td>
</tr>
<tr>
<td>Add</td>
<td>Add an ACD team, QM team, or group to a list.</td>
</tr>
<tr>
<td>Remove</td>
<td>Delete an ACD team, QM team, or group from a list.</td>
</tr>
<tr>
<td>Save</td>
<td>Saves your changes.</td>
</tr>
<tr>
<td>Cancel</td>
<td>Cancels your current changes.</td>
</tr>
</tbody>
</table>

**Table 29.** User Administration tabs

<table>
<thead>
<tr>
<th>Tab</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linked Users</td>
<td>Active Directory users linked to ACD or Quality Management users. This includes the administrator.</td>
</tr>
<tr>
<td>Managers</td>
<td>ACD and Quality Management users assigned to the manager role in Quality Management Administrator.</td>
</tr>
<tr>
<td>Evaluators</td>
<td>ACD and Quality Management users assigned to the evaluator role in Quality Management Administrator.</td>
</tr>
<tr>
<td>Archive Users</td>
<td>ACD and Quality Management users assigned to the archive user role in Quality Management Administrator.</td>
</tr>
<tr>
<td>Supervisors</td>
<td>ACD users assigned to the supervisor role Unified CCX and Quality Management users assigned to the supervisor role in Quality Management Administrator.</td>
</tr>
<tr>
<td>Agents</td>
<td>ACD users assigned to the agent role in Unified CCX.</td>
</tr>
<tr>
<td>Knowledge Worker</td>
<td>Quality Management users assigned to the knowledge worker role in Quality Management Administrator.</td>
</tr>
<tr>
<td>Unlinked ACD Users</td>
<td>ACD users who are not linked to an Active Directory user.</td>
</tr>
</tbody>
</table>
Table 30 describes the information that appears about the users on each tab.

**Table 30.** User Administration tab columns

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
</table>
| License      | The license assigned to the user. The possible licenses are:  
  - CR  
  - CRA  
  - QM  
  - QMA  
  - AQM  
  - AQMA  
  A user must be licensed to be able to log into Workforce Optimization and be recorded. |
| Last Name    | The user’s last name, as set up in ACD or Quality Management. If your are using Active Directory, the name appears as it is configured in Active Directory.  
  When using Active Directory authentication, the first and last name are displayed in their respective columns after you link a user. A report that normally displays a user’s first and last name will display the Active Directory first and last name. |
| First Name   | The user’s first name, as set up in ACD or Quality Management. If your are using Active Directory, the name appears as it is configured in Active Directory. |
| User ID      | The user ID assigned to the user. If the user is an ACD user, the format is `<agent’s PG>.<agent’s ICM Peripheral Number>`. If the user is a Quality Management, the Quality Management system assigns a number. |
| Assigned Team| The team assigned to the agent. |
| Assigned Group| The group assigned to the agent. |
| Windows Login| The user’s Windows user name. |
| Domain       | The domain assigned to the Active Directory user. |
When you select a user listed in any of the tabs, that user’s properties are displayed in the lower section of the window. User properties are described in Table 31.

**Table 31.** User Properties fields

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>License</td>
<td>The license assigned to the user.</td>
</tr>
<tr>
<td>First Name</td>
<td>The user’s first name, as set up in ACD or Quality Management.</td>
</tr>
<tr>
<td>Last Name</td>
<td>The user’s last name, as set up in ACD or Quality Management.</td>
</tr>
<tr>
<td>Assigned Team</td>
<td>The team assigned to the agent or knowledge worker.</td>
</tr>
<tr>
<td></td>
<td><strong>NOTE:</strong> The Assigned Team drop-down list only displays teams containing knowledge workers.</td>
</tr>
<tr>
<td>User ID</td>
<td>The user ID assigned to the user. If the user is an ACD user, the format is &lt;agent’s PG&gt;&lt;agent’s ICM Peripheral Number&gt;. If the user is a Quality Management user, the Quality Management system assigns a number.</td>
</tr>
<tr>
<td>Roles</td>
<td>The roles assigned to the user. The available check boxes are as follows:</td>
</tr>
<tr>
<td></td>
<td>• Agent (available for ACD users only and disabled by default)</td>
</tr>
<tr>
<td></td>
<td>• Knowledge Worker (available for non-ACD users only)</td>
</tr>
<tr>
<td></td>
<td>• Supervisors (disabled by default for ACD users)</td>
</tr>
<tr>
<td></td>
<td>• Evaluator</td>
</tr>
<tr>
<td></td>
<td>• Manager</td>
</tr>
<tr>
<td></td>
<td>• Archive User</td>
</tr>
<tr>
<td>Supervisor’s ACD Team</td>
<td>Lists the ACD teams assigned to the supervisor.</td>
</tr>
<tr>
<td>Supervisor’s QM Team</td>
<td>Lists the QM teams assigned to the supervisor.</td>
</tr>
<tr>
<td>Manager’s Groups</td>
<td>Lists the groups assigned to the manager.</td>
</tr>
</tbody>
</table>

**Linking ACD Users to Active Directory Accounts**

Use this task to link ACD users to Active Directory accounts when you initially set up Quality Management.

**TASK**

1. From the User Administration window, click Link AD to ACD Users.

   **STEP RESULT:** The Link AD to ACD Users dialog box appears.
2. Select the Active Directory domain that your users are in from the Domain drop-down list.

3. Select the path to your users from the UserPath list

**ADDITIONAL INFORMATION:** You can select one or more user paths from this list.

4. Click Find.

**STEP RESULT:** The users who exactly match the search query appears in the list. The first five columns display information from Active Directory. The last three columns display information from the ACD.

5. Select the Active Directory accounts that you want to link to your ACD users, and then click OK.

**ADDITIONAL INFORMATION:** If you want to link all users in the list, click Select All.

**NOTE:** If some ACD users have names that don’t exactly match their Active Directory accounts, you have to link them individually.

Figure 20 displays selected users in the Link Active Directory to ACD Users dialog box.

**Figure 20. Link Active Directory to ACD User dialog box**

**STEP RESULT:** The ACD users that you linked to Active Directory accounts appear on the Linked Users tab.
**Linking an ACD User to an Active Directory account**

Use this task to link an ACD user to an Active Directory account.

**TASK**

1. From the User Administration window, click the Unlinked ACD Users tab.

2. Select the user you want to link, and then click Link User.

   **STEP RESULT:** The Link Selected User dialog box appears with the user’s last name and first name already filled in with the first two letters (plus an asterisk, which is a wildcard).

3. Select the Active Directory domain that your users are in from the Domain drop-down list.

4. Select the path to your users from the UserPath list.

5. Enter your search criteria in one or more of the following fields:
   - Last Name
   - First Name
   - Windows Login Name

   **ADDITIONAL INFORMATION:** You can use an asterisk as a wildcard character. The asterisk matches any number of characters.

6. Click Find.

   **STEP RESULT:** The users who match the search query appears in the list.

7. Select the Active Directory account you want to link your ACD user with from the search results, and then click OK.

   **STEP RESULT:** The user you just linked now appears under the Linked Users tab.

**Assigning User Roles to an ACD User**

Use this task to assign Quality Management user roles to an ACD User. You can assign an ACD user to the following roles: manager, evaluator, and archive user.

**TASK**

1. Select the ACD user from one of the tabs in the User Administration window.
**STEP RESULT:** The user’s properties appear in the User Properties section of the window.

2. Select the desired role check box in the Roles section.
   - If you assigned the Manager role, you can now assign a group to the manager. Click Add under the Manager’s Groups section and select the appropriate group.

**ADDITIONAL INFORMATION:** You cannot assign the agent and/or supervisor role to an ACD user from Quality Management Administrator. You can only assign agent and supervisor roles in Unified CCX.

3. Click Save.

**Switching Active Directory–ACD Links**

Once you link an ACD user to an Active Directory account, you cannot unlink the ACD user. You can switch a link from one Active Directory account to another Active Directory account by following the procedure for linking an ACD user to an Active Directory account and selecting a new Active Directory user to link to.

If that Active Directory account is already linked to an ACD user, the links will be switched. For example, if:

- ACD User 1 is linked to Active Directory Account 1
- ACD User 2 is linked to Active Directory Account 2

and you want to link ACD User 1 to Active Directory Account 2, you can do so. The end result is that the links will be switched:

- ACD User 1 is linked to Active Directory Account 2
- ACD User 2 is linked to Active Directory Account 1

There are other linking/unlinking situations that can exist. When you attempt to link or unlink various combinations of ACD, Active Directory, and Quality Management users, popup messages appear telling you what you must do to accomplish the task, or if it is allowed in Quality Management.

**Creating a Non-ACD User**

Use this task to create a non-ACD user.

**TASK**

1. From the User Administration window, click Create Users.

   **STEP RESULT:** The Link New Users dialog box appears.
2. Select the Active Directory domain that your user is in from the Domain drop-down list.

3. Select the path to your user from the UserPath list.

4. Enter your search criteria in one or more of the following fields:
   - Last Name
   - First Name
   - Windows Login Name

   **Additional Information:** You can use an asterisk as a wildcard character. The asterisk matches any number of characters.

5. Click Find.

   **Step Result:** The users who match the search query appear in the list (Figure 21).

**Figure 21.** Link New Users dialog box

6. Select the specific Active Directory account that you want to link, and then click OK.
Assigning Roles to a Non-ACD User

Use this task to assign roles to a non-ACD user. You can assign non-ACD users to the following roles: knowledge worker, supervisor, manager, evaluator, and archive user.

**TASK**

1. Select the non-ACD user from the Unassigned Users tab.

**STEP RESULT:** The user’s properties appear in the User Properties section of the window.

2. Select the desired role check box in the Roles section.

   - If you assigned the Knowledge Worker role, you can now assign the knowledge worker to a team using the enabled Assigned Team field. Select the appropriate team from the drop-down list. The team can consist only of knowledge workers.

   **NOTE:** Quality Management does not record the knowledge worker until you assign that user to a team.

   - If you assigned the Manager role, you can now assign a group to the manager. Click Add under the Manager’s Groups section and select the appropriate group.

   - If you assigned the Supervisor role, you can now assign a team to the supervisor. Click Add under the Supervisor’s ACD Teams and/or Supervisor’s Quality Management Teams sections and select the appropriate team(s).

3. Click Save.

**Non-Active Directory Systems**

In a non-Active Directory system, there are two types of users:

- **ACD User.** A user set up as an agent and/or supervisor and assigned to a team in Unified CCX. You can assign an ACD user to manager, evaluator, and archive user roles in Quality Management.

- **Quality Management User.** A non-agent user set up in Quality Management.

  **NOTE:** Whenever you modify a user in Unified CCX (for example, change a user’s name), the modifications do not appear in Quality Management until synchronization occurs. The synchronization
process runs automatically at 10-minute intervals. If necessary, you can manually synchronize these databases (see “Synchronizing Databases” on page 14).

The User Administration window (Figure 22) has tabs that sort users into categories according to their roles and status within Quality Management.

Figure 22. User Administration window (non-Active Directory systems)

Table 32 describes the buttons.

<table>
<thead>
<tr>
<th>Tab</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create Users</td>
<td>Add a non-ACD user. Non-ACD users are users that exist only in Quality Management and Active Directory. Non-ACD users do not exist in Unified CCX. Like ACD users, you must link non-ACD users to an Active Directory Account to be part of the Quality Management system.</td>
</tr>
<tr>
<td>License Users</td>
<td>Assign a user with a license. See &quot;License/Unlicense Users&quot; on page 102 for more licensing information.</td>
</tr>
<tr>
<td>Delete User</td>
<td>Remove a non-ACD user. See “Deleting a Unified CCX User” on page 103 for information on deleting and ACD user.</td>
</tr>
<tr>
<td>Edit User</td>
<td>Configure the user properties.</td>
</tr>
<tr>
<td>Add</td>
<td>Add an ACD team, QM team, or group to a list.</td>
</tr>
<tr>
<td>Remove</td>
<td>Delete an ACD team, QM team, or group from a list.</td>
</tr>
</tbody>
</table>
Table 33 describes the tabs.

Table 33. User Administration tabs

<table>
<thead>
<tr>
<th>Tab</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configured Users</td>
<td>All ACD and Quality Management users who have been set up in Quality Management. This includes the administrator.</td>
</tr>
<tr>
<td>Managers</td>
<td>ACD and Quality Management users assigned to the manager role in Quality Management Administrator.</td>
</tr>
<tr>
<td>Evaluators</td>
<td>ACD and Quality Management users assigned to the evaluator role in Quality Management Administrator.</td>
</tr>
<tr>
<td>Archive Users</td>
<td>ACD and Quality Management users assigned to the archive user role in Quality Management Administrator.</td>
</tr>
<tr>
<td>Supervisors</td>
<td>ACD users assigned to the supervisor role in Unified CCX and Quality Management users assigned to the supervisor role in Quality Management Administrator.</td>
</tr>
<tr>
<td>Agents</td>
<td>ACD users assigned to the agent role in Unified CCX.</td>
</tr>
<tr>
<td>Knowledge Worker</td>
<td>Quality Management users assigned to the knowledge worker role in Quality Management Administrator.</td>
</tr>
<tr>
<td>Not Configured Users</td>
<td>ACD users who have not yet been set up in Quality Management.</td>
</tr>
<tr>
<td>Unassigned Users</td>
<td>Quality Management users not assigned to the manager, evaluator, knowledge worker, supervisor, or archive user roles.</td>
</tr>
</tbody>
</table>
Each tab displays information about the users that fall into its category, as shown in Table 34.

**Table 34. User Administration tab columns**

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>License</td>
<td>The license assigned to the user. The possible licenses are:</td>
</tr>
<tr>
<td></td>
<td>• CR</td>
</tr>
<tr>
<td></td>
<td>• QM</td>
</tr>
<tr>
<td></td>
<td>• AQM</td>
</tr>
<tr>
<td></td>
<td>A user must be licensed to be able to log into Workforce Optimization and be recorded.</td>
</tr>
<tr>
<td>Last Name</td>
<td>The user’s last name, as set up in ACD or Quality Management. When syncing users from the ACD, this field displays the user’s entire name (first and last name), and the First Name field remains empty. If you are using QM authentication, a report that normally displays a user’s first and last name only syncs the information from the agent’s name field and displays the entire name in the Last Name field.</td>
</tr>
<tr>
<td>First Name</td>
<td>The user’s first name, as set up in ACD or Quality Management.</td>
</tr>
<tr>
<td>User ID</td>
<td>The user ID assigned to the user. If the user is an ACD user, the format is &lt;agent’s PG&gt;.&lt;agent’s ICM Peripheral Number&gt;. If the user is a Quality Management user, the Quality Management system assigns a number.</td>
</tr>
<tr>
<td>Assigned Teams</td>
<td>The team assigned to the agent or knowledge worker.</td>
</tr>
<tr>
<td>Assigned Groups</td>
<td>The group assigned to the agent.</td>
</tr>
<tr>
<td>Windows Login</td>
<td>The user’s Windows user name.</td>
</tr>
</tbody>
</table>

When you select a user listed in any of the tabs, that user’s properties are displayed in the lower section of the window. User properties are described in Table 35.

**Table 35. User Properties fields**

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>License</td>
<td>The license assigned to the user.</td>
</tr>
<tr>
<td>First Name</td>
<td>The user’s first name, as set up in ACD or Quality Management.</td>
</tr>
<tr>
<td>Last Name</td>
<td>The user’s last name, as set up in ACD or Quality Management.</td>
</tr>
</tbody>
</table>
Configuring an ACD User

Use this task to configure a Unified CCX user for Quality Management. An ACD user is not a part of Quality Management system until you configure the ACD user in Quality Management Administrator.

An ACD user can only be assigned the agent role or supervisor role in Unified CCX. You can only assign ACD teams to a supervisor in Unified CCX.

Enter the ACD user’s Windows login name and Quality Management login password to configure an ACD user in Quality Management.

**TASK**

1. **On the Not Configured Users tab, locate and select the user you want to configure.**

2. **In the User Properties section, click Edit User and enter the user’s Windows Login and Quality Management Password.**
Additional Information: The Windows login name must be unique, but users can have the same first and last names. It must be between 1 and 64 characters long, cannot consist entirely of spaces, and cannot include these characters: / \ [ ] ; " | = , + * ? < > ( )

3. If necessary, assign the user the Evaluator, Archive User, and/or Manager role by selecting the check boxes next to those roles.
   - If you assigned the Manager role, you can now assign a group to the manager by clicking Add under the Manager’s Groups section and selecting the appropriate group.
   - If you assigned the Supervisor role, you can now assign a team to the supervisor by clicking Add under the Supervisor’s ACD Teams section and/or Supervisor’s QM Team and selecting the appropriate team.

4. Click Save.

Additional Information: The ACD user is removed from the Not Configured User tab and appears under the tab for each role that you assigned to the ACD user. For instance, if you assigned the ACD user to the evaluator role, the ACD user appears under both the Agents tab and the Evaluators tab.

Note: The ACD users initially appear under the Agents and/or Supervisors tabs and non-ACD users under the Unassigned Users tab.

Creating a Non-ACD User

This task describes how to create a non-ACD user. A non-ACD user exists only in Quality Management. The non-ACD user does not exist in Unified CCX. A non-ACD user can be an evaluator, manager, supervisor, knowledge worker, and/or archive user, but not an agent.

Task
1. Click Create User.

Step Result: The Create User dialog box appears.

2. Complete the fields, and then click OK.

Additional Information: The Windows login name must be unique, but users can have the same first and last names.
STEP RESULT: The Roles section is enabled. You can assign a role to the new user at this time, or do it later.

A user ID (Windows Login) is assigned to the new user and the user appears under the tab for each role that you assigned the user, or under the Unassigned Users tab if you did not assign any roles to the user.

### Assigning Roles to a Non-ACD User

You can assign the Knowledge Worker, Supervisor, Evaluator, Manager, and Archive User roles to a non-ACD user from any tab on which that user is listed.

**TASK**

1. Select the non-ACD user from any tab on which the user is listed.

   **STEP RESULT:** The user’s properties appear in the User Properties section of the window.

2. Select check box for the desired role in the Roles section.

   - If you assigned the Knowledge Worker role to the user, you can now assign the knowledge worker to a team using the enabled Assigned Team field. Select the appropriate team from the Assigned Team drop-down list. The team can consist only of knowledge workers.

   **NOTE:** Quality Management does not record the knowledge worker until you assign that user to a team.

   - If you assigned the Supervisor role, you can now assign the supervisor to a team by clicking Add under the Supervisor’s ACD Teams or Supervisor’s QM Team and selecting the appropriate teams. The selected team can be either an ACD or non-ACD team.

   **NOTE:** You must first assign the non-ACD user to the knowledge worker role before you can assign that non-ACD user to the Supervisor role.

   - If you assigned the Manager role, you can now assign a group to the manager by clicking Add under the Manager’s Groups section and selecting the appropriate group.

3. Click Save.
License/Unlicense Users

The License/Unlicense Users dialog box (Figure 23) displays a list of users and available licenses. You can use this dialog box to:

- Assign a license to one or more users.
- Unlicense one or more users.

**Figure 23. License/Unlicense Users dialog box**

Users must be licensed to log into Workforce Optimization and to be recorded. A user’s license status is displayed in the User Administration window.

The total number of licensed users is displayed on the User Administration interface to the right of the Delete User button. The number displayed updates as soon as you license or unlicense users.

Users’ license status can be changed only after they have been linked to an AD user (in AD systems) or configured (in non-AD systems).

The number of licenses you have is configured when your system is installed. More information about managing your licenses can be found in “License” on page 38.

**Changing a User’s License Status**

Use this task to change a user’s license status.

**TASK**

1. From the User Administration window, click License Users.

**STEP RESULT:** The License/Unlicense Users dialog box appears. It displays a list of all linked users and the available licenses.
2. Select the users whose license status you want to change.
   - Use Shift + Click to select contiguous rows in the list of users.
   - Use Ctrl + Click to select non-contiguous rows in the list of users.

3. Select the license type you want to assign to the selected users and click OK. The possible recording types are:
   - AQM
   - AQMA
   - QM
   - CR
   - Unlicensed—Removes a license from a user.

**STEP RESULT:** The license is assigned to the users. The users can log into Workforce Optimization and the users can be recorded.

**NOTE:** Changes in license status go into effect the next time the user attempts to log in.

**Deleting a Unified CCX User**

You cannot delete a Unified CCX user from Quality Management. You can only delete a Unified CCX user from the Unified CCX system. However, you can unlicense a Unified CCX user, which means that the user cannot log in to Workforce Optimization and the user will not be recorded.

**Deleting a Non-ACD User**

Use this task to delete a non-ACD user.

**TASK**

1. Select the non-ACD user you want to delete on one of the tabs in the User Administration window.

2. Disable all roles assigned to the non-ACD user, remove any team associations and group associations, and then click Save.

3. Click Delete User.
STEP RESULT: A dialog box asks you to confirm that you want to delete the selected non-ACD user.

4. Click Yes.

STEP RESULT: The non-ACD user is deleted.

Team Administration

The Team Administration window (Figure 24) enables you to:

- View the agents and supervisors belonging to a selected team.
- Assign non-ACD supervisors to a team of ACD agents.
- Create, rename, and remove non-ACD teams.
- Assign knowledge workers, ACD supervisors, and non-ACD supervisors to teams.

Figure 24. Team Administration window

Assign agents and ACD supervisors to teams in Unified CCX. You cannot change team assignments in Quality Management Administrator. You can assign non-ACD supervisors to an ACD team in Quality Management Administrator.
You cannot assign knowledge workers to the same team as agents. Knowledge workers must belong to a team made up only of knowledge workers. However, a Quality Management team can have ACD supervisors in addition to non-ACD supervisors.

You cannot create, rename, or remove an ACD team. Create and maintain ACD teams in Unified CCX.

Managing Teams

**TASK**

- To configure an ACD team, choose an ACD team from the Team drop-down list, add or remove QM supervisors, and then click Save.

**ADDITIONAL INFORMATION:** When a team is created in Unified CCX, you can only change the QM Supervisors assigned to the team.

- To add a non-ACD team, click New, type the team’s name in the field, and then click OK. Add knowledge workers, ACD supervisors, and QM supervisors to the new team by clicking Add underneath each section, selecting the desired names from the list, and then clicking OK. When the new team is complete, click Save.

**ADDITIONAL INFORMATION:** The team’s name must conform to the following rules.
- The team’s name must be unique.
- A team’s name cannot be longer than 32 characters.

- To assign people to a non-ACD team, choose the team from the Team drop-down list. Add knowledge workers, ACD supervisors, and QM supervisors to the new team by clicking Add underneath each section, selecting the desired names from the list, and then clicking OK. When the update is complete, click Save.

**ADDITIONAL INFORMATION:** Use Shift + Click to select adjacent people and Ctrl + Click to select non-adjacent people.

- To remove people from a team, select the people you want to remove from a section (for example, Assigned Knowledge Workers, Assigned ACD Supervisors, or Assigned QM Supervisors), click Remove underneath the section, and then click OK.

- To rename a team, select the team you wish to rename from the Team drop-down list, click Rename, type the new name in the field, and then click OK.

- To delete a team, select the team you wish to delete from the Team drop-down list, click Delete, and then click Yes.
**ADDITIONAL INFORMATION:** Remove the team from the quality management workflow before you delete the team.

**NOTE:** You cannot delete a team if the team is assigned to a quality management workflow. You can delete a team if the team is assigned to an archive workflow.

**Group Administration**

Groups contain teams and managers assigned to the groups. From the Group Administration window (Figure 25), you can:

- Create, rename, and delete a group.
- Add and remove teams from a group.
- Add and remove managers from a group.

![Group Administration window](image)
Managing Groups

**TASK**

- To add a group, click New, type the group’s name in the field, and then click OK. Add teams and managers to the group by clicking Add underneath each section, selecting the desired names from the list, and then clicking OK. When the new group is complete, click Save.

**ADDITIONAL INFORMATION:** The group’s name must conform to the following rules.

  - The group’s name must be unique.
  - A group’s name cannot be longer than 32 characters.

- To add teams to a group, select the group from the Group drop-down list, click Add under the Assigned Teams section. Select the team or teams you want to assign to the group from the list of available teams, and then click OK. When the group is complete, click Save.

**ADDITIONAL INFORMATION:** Use Shift + Click to select adjacent teams and Ctrl + Click to select non-adjacent teams.

**NOTE:** A team can belong to only one group. If you assign a team to a group and it already belongs to another group, Quality Management will ask you to confirm moving the team from one group to another group.

- To remove teams from a group, select the group from the Group drop-down list, select the teams you want to remove from the group, and then click Remove. When the group is complete, click Save.

- To add managers to a group, select the group from the Group drop-down list, click Add under the Assigned Managers section. Select the manager or managers you want to assign to the group from the list of available managers, and then click OK. When the group is complete, click Save.

- To remove managers from a group, select the group from the Group drop-down list, select the managers you want to remove from the group, and then click Remove. When the group is complete, click Save.

- To rename a group, select the group you wish to rename from the Group drop-down list, click Rename, type the new name in the field, and then click OK.

- To delete a group, select the group you wish to delete from the Group drop-down list, click Delete, and then click Yes.

**ADDITIONAL INFORMATION:** Remove teams assigned to the group, from the quality management workflow before you delete the group.

**NOTE:** You cannot delete a group if any teams in that group are assigned to a quality management workflow. You can delete a group if the teams in that group are assigned to an archive workflow.
Recordings

The Recordings node enables you to:

- Configure recording retention periods for a workflow team.
- Create quality management workflows for a team.
- Create and maintain evaluation forms.
- Create archive workflows for a team.
- Configure and manage user-defined metadata.
- Allow specific roles to export recordings.
- Configure thresholds for talkover and silence events.
- Control the columns that appear in the <User ID> tab and the Recordings table for the Recordings application.

About Recordings

There are two types of recordings: those made for quality management purposes, and those made for archiving purposes. Quality management recordings can include voice and screen recordings. Archive recordings are voice only.

Quality management recordings and archive recordings use workflows to determine which recordings of inbound and/or outbound calls (“calls of interest”) to save for evaluation or archival purposes. You can assign a workflow to one or more teams. Some examples of why you would record calls of interest are:

- Tracking the performance of specific agents.
- Helping train new agents.
- Monitoring calls during a sale period.
- Monitoring calls during specific times of day.
- Monitoring calls from specific customers or specific phone numbers.

Quality Management saves recordings that are at least 5 seconds long. Quality Management does not consider a recording of less than 5 seconds a valid recording. For quality management purposes, you can change the minimum duration in the WHAT rule for the quality management workflow classifier. You cannot change the minimum duration for an archive workflow.

Quality Management does not support calls that are 24 hours long or longer.
Quality Management displays the time associated with a contact as the time the contact occurred at the agent’s location, expressed in 24-hour HH:MM:SS format. For example, if the agent is located in Chicago, the time associated with any recorded contacts made by that agent is Chicago local time.

The contact also displays the abbreviation for the local time zone. If the time zone associated with the contact is unknown to Quality Management, then Quality Management displays the time in Greenwich Mean Time (GMT).

Cisco MediaSense Recording Considerations

When configuring workflows for Cisco MediaSense Recording, consider the following:

- A workflow is configured to save recordings based on certain rules as they apply to individual contacts (sessions). Using Cisco MediaSense Recording might result in more than one contact for a single call. For example, if an agent places a call on hold, two contacts are created that will be evaluated individually for a workflow. For example, a single call could produce a “shortest call” contact (before the hold) and a “longest call” contact (after the hold). Alternatively, a single call recorded by MediaSense might result in one of multiple contacts (session) being uploaded. It is possible that some sessions in a single call might not be uploaded based on the rules configured for the quality management workflow. For this reason, Cisco recommends you choose the 100% QM Logging option when you configure quality management workflows to guarantee the entire call appears in the Recording application for Workforce Optimization.

About User-defined Metadata

Administrators can add up to 10 user-defined metadata fields. The metadata can be captured from Unified CCX, Cisco Agent Desktop (CAD), and other applications to pass the data to the Quality Management API.

The CAD IPC Action can also be used to pass data to Quality Management. See the Cisco CAD Desktop Administrator User Guide for more information.

Recording Retention

The administrator determines the amount of time contacts are retained for quality management workflows and archive workflows.
Recording Retention Periods and Workflow

The retention period for recorded calls is specified at the workflow level. The age of a call is based on the day the call was recorded. This value is not updated by any actions performed on the recorded call. The expiration date is the last day of the retention period.

Teams assigned to a workflow will share the same retention period. For example, two teams associated with one workflow might handle calls that require call recordings to be kept for 7 years. A team associated with another workflow might handle calls that require call recordings to be kept for only a year.

The length of time that quality management recordings are retained and configured is under the Quality Management > Workflows node and the length of time archive recordings are retained and configured is under the Archive > Workflows node.

Recording Retention Rules

Quality Management observes the following rules when determining retention time.

- Every quality management workflow has individual retention periods for HR, Scored, Tagged, Training, and Unscored calls.
- Every archive workflow has individual retention periods for Archive and Tagged calls.
- Different calls might be retained for different retention periods, depending on the workflow retention period assigned to the call.
- If a call is marked as Tagged, the screen recording file will be deleted at the end of the quality management Tagged retention time. The audio file will be deleted at the end of the longer retention time for either the quality management Tagged or archived Tagged retention time. Quality Management deletes metadata associated with a call when the longest of the quality management Tagged, archived Tagged, or metadata retention times is reached. By default, call data is stored for 13 months.

The following example shows how Quality Management handles Tagged retention when both archive and quality workflows exist:

- A contact is recorded for both quality management and archiving. It is also marked as Tagged by the user.
  - Quality management Scored retention time is two months.
  - Quality management Tagged retention time is 6 months.
  - Archive retention time is one year.
  - Metadata retention time is thirteen months.
  - Archive Tagged retention time is ten years.
- After 6 months, the screen recording is deleted and is no longer available.
- After ten years, the audio recording and metadata are deleted and no longer available.

<table>
<thead>
<tr>
<th>Time</th>
<th>Data</th>
<th>Applications in Workforce Optimization where you can access the data</th>
</tr>
</thead>
<tbody>
<tr>
<td>For 6 months</td>
<td>Screen recording</td>
<td>Recordings</td>
</tr>
<tr>
<td>For 10 years</td>
<td>Audio recording</td>
<td>Recordings</td>
</tr>
<tr>
<td>For 13 months</td>
<td>Metadata</td>
<td>Recordings</td>
</tr>
</tbody>
</table>

- When upgrading from 2.7(1) or lower, all existing workflows will be assigned the retention periods configured before the upgrade. After upgrading to the latest version, you can change these retention periods for each workflow. The retention periods can be modified under the Quality Management > Workflows and Archive > Workflows nodes in Quality Management Administrator after the upgrade is complete. Calls recorded before the upgrade are also assigned retention periods configured before the upgrade. However, the retention periods for these calls cannot be changed.
- A quality management workflow retention period is assigned at the End of Day (EOD).
- Every day at the time set in the Database Cleanup Time field in the Upload Settings window (see “Upload Settings” on page 47), the database cleanup utility deletes recordings whose retention period has expired.
- Once the retention period is assigned to a call, the call’s retention period can only be changed by changing the retention times in the workflow in which the retention periods were originally assigned.

**NOTE:** It is important to remember that reducing a retention period after it has been set initially can result in the deletion of recordings, and that increasing a retention period will result in a larger use of storage space. Changing these values should be considered carefully.
- Once the retention period is assigned to a call, the call’s retention period will not be changed if a team is moved from one workflow to another workflow. Subsequent calls associated with the new workflow will use the retention period assigned to the new workflow.
- When you delete a workflow, any calls assigned to that workflow retains the last known retention times for the deleted workflow.
Quality Management Workflow Retention

Quality Management allows quality management contacts to be retained according to the limits shown in Table 36.

Table 36. Recording retention periods for quality management workflows

<table>
<thead>
<tr>
<th>Recording Type</th>
<th>Retention Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scored</td>
<td>1 day—unlimited (default = 30 days)</td>
</tr>
<tr>
<td>Unscored</td>
<td>1 day—unlimited (default = 30 days)</td>
</tr>
<tr>
<td>HR</td>
<td>1 month—unlimited (default = 6 months)</td>
</tr>
<tr>
<td>Training</td>
<td>1 month—unlimited (default = 6 months)</td>
</tr>
<tr>
<td>Tagged</td>
<td>1 month—unlimited (default = 120 months)</td>
</tr>
<tr>
<td>Metadata</td>
<td>13 months(^a)</td>
</tr>
</tbody>
</table>

\(^a\) You cannot change the recording retention period for metadata.

Archive Workflow Retention

Quality Management allows archive workflow contacts to be retained according to the limits shown in Table 37.

Table 37. Contact retention periods for archive workflows

<table>
<thead>
<tr>
<th>Recording Type</th>
<th>Retention Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Archive(^a)</td>
<td>1 month—Unlimited (default = 84 months)</td>
</tr>
<tr>
<td>Tagged</td>
<td>1 month—Unlimited (default = 120 months)</td>
</tr>
<tr>
<td>Contact Information</td>
<td>13 months minimum in both the Dashboard and Reporting applications</td>
</tr>
</tbody>
</table>

\(^a\) Audio recordings only.

About Workflows

There are two types of workflows: quality management workflows and archive workflows. A workflow allows you to specify rules and classifiers to designate the types of contacts you want to record. Use quality management workflows to specify types of
calls you want to save for quality management recordings. Use archive workflows to specify the types of calls you want to save for archive recordings.

**Workflow Prerequisites**

Before you create a workflow, you need to:

- Set up users and groups.
- Assign teams to a group (required for quality management workflow; not required for an archive workflow).
- Create an active evaluation form (quality management workflow only).

**How Multiple Classifiers in a Workflow are Executed**

You can set up multiple classifiers for a workflow. They are executed in the order they are listed (from top to bottom) in the workflow navigation tree. This enables you to create classifiers that are subsets of more general classifiers.

To change the order of classifiers in the navigation tree, select the classifier and use the Up and Down arrow buttons to move it up or down in the navigation tree.

**Classifiers and Rules Example for a Quality Management Workflow**

Classifier 1:

- Called number = 20??
- Inbound
- Rule 1: record new employee J. Smith
- Rule 2: record random calls for Team A

Classifier 2:

- Called number = * (all)
- Outbound
- Rule 1: record longest call of the day and shortest call of the day for Team B

In this example, a call must meet the called number condition and then the call direction condition of Classifier 1 to go on to evaluate the rules. If the call does not meet the called number condition, the workflow moves on to Classifier 2.

If the call meets the called number and call direction condition of Classifier 1, the workflow then goes on to evaluate the rules in top-down order. If none of the rules are met, the call will not be marked for quality management (although it might be uploaded for archiving if an archive workflow is configured).
Once a contact matches a classifier (and does or does not match any of those classifier’s rules), the workflow will not move on to another classifier.

**Figure 26. Classifier execution order in a quality management workflow**

**Qualifiers Example for an Archive Workflow**

Classifier 1:
- Called number = 20??
- Inbound

Classifier 2:
- Called number = * (all)
- Outbound
In this example, for an archive workflow, a call must meet the called number condition and then the call direction condition of Classifier 1. If the call does not meet the called number condition, the workflow moves on to Classifier 2.

Once a contact matches a classifier, the workflow will not move on to another classifier.

**Figure 27.** Classifier execution order in an archive workflow

Configure a Classifier to Allow Agents to Selectively Tag Calls

When you configure archive or quality management workflows, calls are automatically recorded from the beginning. To allow agents to selectively tag calls for recording using the Tag command, choose the Don’t Record option to disable uploading of recorded calls when configuring a classifier for the workflow.

Configure a Do Not Record Classifier

You can exclude specific phone numbers or area codes from recording by choosing the Don’t Record option. For example, you can choose to exclude outbound calls to California.
Quality Management Workflows

This topic describes the Workflow Administration window and provides tasks to create and maintain quality management workflows.

Points to Remember

• If a Hot Desking or Agent Mobility agent is recorded on multiple recording servers or Desktop Recording services (endpoints) during a single day, the quality management workflow might mark more calls for quality than expected. This is because calls are marked for quality on the Desktop Recording service or single recording servers and are not coordinated across recording points. For example, if a quality management workflow is configured to upload five quality calls, Quality Management will upload five calls for an agent who is recorded on three different phones on a single recording server. If an agent is recorded on two different recording servers, Quality Management Monitoring and Recording Services will upload 10 calls (five from each server).

• When a non-contact call is created or an Archive contact is marked for quality in Cisco Unified Workforce Optimization, the contact assumes the retention times for unscored and scored contacts configured in the quality management workflow for that agent's team. If you plan to use the Create Contact or Mark for Quality features, Cisco recommends placing all users under a quality management workflow in order to set the retention periods for these contact. If no additional quality recordings are required the quality management workflow classifier can be set to exclude recording on all numbers so the quality management workflow will not cause any additional recording.
Workflow Administration

Use the Workflow Administration window (Figure 28) to create quality management workflows based on team. The quality management workflow includes specific rules and classifiers to designate the types of contacts you want to record. These calls will be recorded for evaluation and review.

Figure 28. Workflow Administration window
### Field Description

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workflows</td>
<td>Lists the existing workflows. To modify the workflows that appear in this list, choose one of the following options.</td>
</tr>
<tr>
<td></td>
<td>• New—Add a new workflow to the list.</td>
</tr>
<tr>
<td></td>
<td>• Rename—Change the name of an existing workflow.</td>
</tr>
<tr>
<td></td>
<td>• Delete—Remove a workflow from the list.</td>
</tr>
<tr>
<td>End of Day</td>
<td>The End of Day is when the uploading process begins. Recording still continues, but those recordings are uploaded after the next “End of Day.” Enter the time for the end of the work day in 24-hour format.</td>
</tr>
<tr>
<td></td>
<td>If the options are changed during the day, they do not go into effect until the quality management workflow is reloaded just before the “End of Day.”</td>
</tr>
<tr>
<td>Allow Evaluator Change Form</td>
<td>Choose this option if you want to allow evaluators to choose the evaluation form they want to use.</td>
</tr>
<tr>
<td>Recording Retentions</td>
<td>Set the length of time you want the various types of recordings to be retained.</td>
</tr>
<tr>
<td>Teams Assigned to Groups</td>
<td>Teams assigned to groups appear in this list.</td>
</tr>
<tr>
<td>Assigned Teams</td>
<td>Teams assigned to this quality management workflow appear in this list. A team can belong to only one quality management workflow at a time.</td>
</tr>
</tbody>
</table>
Classifier Configuration

Use the Classifier Configuration: <workflow name> window (Figure 29) to create, rename, or delete classifiers for a quality management workflow.

**Figure 29. Workflow Classifier Configuration: <workflow name> window**

<table>
<thead>
<tr>
<th>Field/Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation Form</td>
<td>Select the form you want to use to evaluate the recorded calls.</td>
</tr>
<tr>
<td>Record</td>
<td>Select this option to record calls, and then choose from the following options:  &lt;ul&gt;&lt;li&gt;100% Recording Logging&lt;/li&gt;&lt;li&gt;Inbound&lt;/li&gt;&lt;li&gt;Outbound&lt;/li&gt;&lt;/ul&gt;</td>
</tr>
<tr>
<td>100% QM Logging</td>
<td>Select this option if you want to configure a classifier that does not use rules, but rather records all calls defined by the classifier. If you clear this check box, you must configure at least one rule for a Ringing Event. See “Setting up Rules for a Classifier’s Ringing Event” on page 126 for more information.</td>
</tr>
</tbody>
</table>
### Field/Option

<table>
<thead>
<tr>
<th><strong>Inbound and/or Outbound</strong></th>
<th>Select which calls to be recorded—inbound, outbound, or both. You must select at least one call direction.</th>
</tr>
</thead>
</table>
| **Don’t Record**            | Use this option if you want agents to selectively tag calls for recording using the Tag command.  
This option allows you to exclude specific phone numbers or area codes from recording. For example, a workflow for a team has 2 classifiers in the following order:  
- Do not record a call for this workflow if the Calling Number begins with 612* because the area has rules against recording calls.  
- Record all calls with a Calling Number of *.  
The first classifier excludes all calls that originate from a number that starts with 612* from recording. The second classifier records all calls that are not excluded by the first classifier. |
| **Numbers**                 | Select the type of number you want to use to filter the calls, Called Number or Calling Number.  
If the call is inbound, the Called Number is either the route point number if the call was routed, or the agent extension if the call was direct dial.  
The Calling Number is the original number from which the caller is dialing.  
If the call is outbound, the Calling Number is the agent’s extension, and the Called Number is the number of the customer/client.  
**NOTE:** If you add phone numbers to the Called Number section, then select Calling Number from the Numbers drop-down list, the phone numbers you added will be deleted. The reverse is also true. If you add phone numbers to the Calling Number section, then select Called Number from the Numbers drop-down list, the phone numbers you added will be deleted. |
| **Called/Calling Number**   | Click Add to specify the phone numbers you want to filter for in the Numbers field. You can enter:  
- Specific numbers (for example, 6125551212).  
- Number ranges using wildcards (for example, 612*, where the * wildcard stands for any number of digits, or 612555????, where the ? wildcard stands for 1 digit).  
- The * wildcard to record all calls.  
The numbers you enter cannot contain dashes or parentheses, and must be between 1 and 16 characters long. |
Creating a Quality Management Workflow

**PREREQUISITE**

You must assign a team or group before you can assign that team to a quality management workflow. If you did not assign that team to a group, the team does not appear in the Teams Assigned to Groups section.

**NOTE:** A team can belong to one archive workflow and one quality management workflow.

Use this task to create a new quality management workflow.

**TASK**

1. In the navigation tree, select Recordings > Quality Management > Workflows.

   **STEP RESULT:** The Workflow Administration window appears.

2. Next to the Workflows section, click New.

   **STEP RESULT:** The Workflow Name dialog box appears.

3. Enter a unique name for the new quality management workflow, and then click OK.

   **STEP RESULT:** The quality management workflow now appears in the Workflows section.

4. Select the quality management workflow from the Workflows list.

5. Enter the time for the end of the work day in 24-hour format.

   **ADDITIONAL INFORMATION:** If the options are changed during the day, they do not go into effect until the quality management workflow is reloaded just before the End of Day.

6. Select the Allow Evaluators to Change Form check box if you want to allow evaluators to choose the evaluation form they want to use.

7. Set the length of time you want the various types of recordings to be retained.

   **ADDITIONAL INFORMATION:** If you want recordings to be retained indefinitely, select the Unlimited check box associated with the recording type. The minimum amount of time a recording can be retained is one day for Scored and Unscored recordings and 1 month for Tagged, HR, and Training recordings.
8. Assign teams to the quality management workflow.

**ADDITIONAL INFORMATION:** A team can belong to only one quality management workflow at a time. If a team you want to assign to this quality management workflow is already assigned to another quality management workflow, automatically reassigns it to this quality management workflow. Quality Management Administrator displays a warning message telling you that it reassigned the team from another quality management workflow.

9. When you finish configuring the quality management workflow in this window, click Save.

### Setting up Classifiers for a Quality Management Workflow

Use this task to set up classifiers for a quality management workflow.

**TASK**

1. Under the Quality Management > Workflows node, select the workflow you just created.

**STEP RESULT:** The Classifier Configuration: <workflow name> window appears.

2. In the Classifiers section, click New to create a new classifier.

**STEP RESULT:** The Classifier Name dialog box appears.

3. Enter a name for your new classifier, and then click OK.

**STEP RESULT:** The new classifier is now listed in the workflow navigation tree.

4. Select the new classifier in the workflow navigation tree.

5. In the Classifier Settings section, select one of the following options.

   - **Record**—Select this option to upload recorded calls and then choose from the following options: 100% QM Logging, Inbound, or Outbound. Then choose the type of number (Called Number or Calling Number) you want to include from the Numbers drop-down list and then click Add and enter the included numbers.

   **NOTE:** You must select at least one call direction (Inbound or Outbound).

   - **Don’t Record**—Select this option to exclude specific phone numbers or area codes from recording. Choose the type of number (Called Number or
Calling Number) you want to exclude from the Numbers drop-down list and then click Add and enter the excluded numbers.

6. Click Save to save the classifier settings.

**AFTER COMPLETING THIS TASK:**

If you did not select 100% QM Logging, you must now configure at least one rule for a Ringing Event. See “Setting up Rules for a Classifier’s Ringing Event” on page 126 for more information.

**NOTE:** The following message appears if a rule is not configured or you do not choose 100% QM Logging:

Classifier <name> must have at least one rule or 100% QM logging enabled.

### Configuring Actions for the Ringing, Answered, and Dropped Events

Each event in the workflow navigation tree is associated with one or more optional actions as follows.

- Ringing event: Screen Recording Upload
- Answered event: Start Voice Recording
- Dropped event:
  - Stop Voice Recording
  - Enable Extended Screen Recording
  - Extend Screen Recording (in seconds)

Quality Management Administrator enables action settings by default.

Use this task to configure actions for ringing, answered, and dropped events.

**TASK**

1. Under Ringing Event, choose Actions and select the Screen Recording Upload check box if you want to upload screen recordings after the call ends.

**ADDITIONAL INFORMATION:** Screen Recording Upload is not available at the CR or QM license level.
2. Under Dropped Event, choose Actions and choose from the following options:

   - Stop Voice Recording—Select this option when you want to stop audio recording when a call is dropped.
   - Enable Extended Screen Recording—Select this option when you want to continue screen recording to record after-call work after a call is dropped and then type or select the amount of time (in seconds) the recording period continues after the call is dropped in the Extend Screen Recording list box.

   **ADDITIONAL INFORMATION:** Enable Extended Screen Recording is not available at the CR or QM license level.

   If another call starts before the configured time period is over, the recording for the current call stops automatically so that recording for the new call can start.

3. Click Save to save the action settings.

**Modifying a Quality Management Workflow**

Use this task to modify a quality management workflow.

**TASK**


   **STEP RESULT:** The Workflow Administration window appears.

2. Choose one or both of the following options.

   - Select the workflow from the Workflows section to modify the assigned teams or the workflow settings.
   - Select the workflow under the Workflow node in the navigation tree to modify the workflow’s classifiers, rules, and actions.

3. When you finish your changes, click Save.

   **STEP RESULT:** Quality Management Administrator saves the changes to the modified workflow.

   **NOTE:** The modified workflow goes into effect after the agents assigned to the workflow log out and log back in to their Windows session, or after the configured End of Day. The quality management workflow
information is updated before upload occurs so that any changes during the day will take effect.

### Setting up Rules for a Classifier’s Ringing Event

**PREREQUISITE**

You must set up at least one rule for a Ringing Event if you have configured the classifier without 100% QM Logging.

Rules do not apply to classifiers that are configured with 100% Recording Logging.

Use this task to set up rules for a classifier’s ringing event.

**TASK**

1. In the workflow navigation tree, under the classifier, select Ringing Event.

   **STEP RESULT:** The Rule Configuration window appears.

2. Click New to add a new rule.

   **STEP RESULT:** The Rule Name dialog box appears.

3. Enter a name for the new rule, and then click OK.
STEP RESULT: Quality Management Administrator adds the new rule to the workflow navigation tree underneath the Ringing event and the What, Who, and When tabs appear (Figure 30).

Figure 30. Rule Configuration window—What tab

NOTE: As with classifiers, multiple rules may be set up and ordered from least to most specific.

4. On the What tab, select the calls you want to record.

5. Click the Who tab.

STEP RESULT: The Who tab on the Rule Configuration window appears.

6. Select either Agent or Team from the Select Who drop-down list.

7. In the Available Agents/Available Teams section, select the agent or team you want the workflow to apply to, and use the arrow buttons to move those agents or teams to the Assigned section.

8. Click the When tab.

STEP RESULT: The When Tab on the Rule Configuration window appears.
9. Select when the workflow runs from the Select When drop-down list. Your choices are:

- Set of Dates—select specific dates.
- Weekly—select the days of the week.
- Date Range—select a start and stop date.

10. When you are finished configuring the workflow rules, click Save.

Deleting a Quality Management Workflow

Before you delete a quality management workflow, please consider the following information.

- Once a workflow is deleted, you cannot adjust the retention times for a calls associated with a workflow.
- Quality management workflow settings are updated before upload. If you delete a quality management workflow, the calls associated with the quality management workflow are not uploaded.

Use this task to delete a quality management workflow.

**TASK**

1. Select the workflows node under Recordings > Quality Management > Workflows in the navigation tree.

   **STEP RESULT:** The Workflow Administration window appears.

2. Select the workflow from the Workflows pane and click Delete.

   **STEP RESULT:** The Confirm Deletion dialog box appears.

3. Click Yes to confirm the deletion.

   **STEP RESULT:** Quality Management Administrator deletes the quality management workflow.

   **NOTE:** The deleted workflow goes into effect after the agents assigned to the workflow log out and log back in to their Windows session, or after the configured End of Day.
Evaluation Forms

The Evaluation Forms node enables you to:

• Create and maintain evaluation forms.
• Configure who can evaluate contacts that use a specific form.
• Configure who can approve evaluations that use a specific form.

New forms are created based on one of four read-only templates that come with Quality Management Administrator.

Best Practices for Agent Evaluations

This section describes best practices for agent evaluations using Quality Management.

Goal of Quality Management

The goal of quality management is to establish consistency throughout the contact center. So no matter what agent a customer calls on any given day, they get a consistently excellent user experiences. This allows you to:

• Reduce labor costs through efficiencies.
• Identify customer needs and expectations.
• Improve customer satisfaction.
Quality Management Training Process

The quality management training process is a continuous improvement cycle (Figure 31) where you:

- Collect call recordings—Quality Management selects and processes phone calls identified in the workflow.
- Evaluate the call recordings—Supervisors or evaluators review and score the selected recordings against key performance indicators (KPIs).
- Create reports based on evaluations that:
  - Compare the performance of agents, teams, and the entire organization.
  - Identify initiatives for quality improvements and training.
- Refine agents’ performance by:
  - Using quality calls for training.
  - Reevaluate agents to gauge training effectiveness and measure skills.
  - Repeat or select the next quality management initiative.

Figure 31. Quality management training process

Determining Type of Calls to Record or Evaluate

Quality Management provides a two-level filter: you decide what calls you want to record, and from those recorded calls, you then decide what calls you want to evaluate.

Quality Management has a unique workflow-based recording decision process that allows you to create sophisticated criteria or triggers so that you can sort through all calls in the contact center and identify those calls determined most likely to provide value when evaluated.
The Quality Management workflow process provides the following benefits:

- Eliminates time sifting through irrelevant calls—Using workflows allows you to eliminate the time required to choose which calls to evaluate from a long list of unsorted calls. An evaluator might spend an inordinate amount of time choosing calls to evaluate at random. The workflow process allows you to identify relevant calls for evaluation.

- Manages storage use—Using workflows also allows you to manage your storage use. The Advanced license includes the screen recording feature, which takes up significant recording space at a rate of one megabyte per minute of recorded material. So you need to be judicious when choosing which calls you want to record to manage storage space on your recording server.

The following list provides examples of criteria you can build into your workflow criteria.

- First call of the day—You can base your criteria on time management. For example, you can choose to record the first call of the day, or the first two calls of the day. Or you can choose to record the first call after lunch.

- Longest or shortest call—You can choose to record the two or three longest calls or shortest calls of the day for each agent. This allows you to understand some of the components of long calls, or simply understand why the call handle times exceed the norm. You can also set up a workflow to record three or four of the shortest calls of the day to determine why you get 15 or 20 second calls.

- Peak hour—You can choose to record several calls during peak hours. For example, you could choose to record 3 calls at random during your peak hour period between 1–2pm, so you can get a good assessment of how agents are handling callers. Are they providing the same quality while there are callers in queue?

- Specific (new) agents—If you are concerned about an agent’s performance, or you have a new agent, you can record 100% of the agent’s calls for a specified period (for example, two weeks). This allows you to understand their activities and get them up to speed with the rest of your agents.

- Specific customer or account ID—You can choose to add custom metadata fields at the time of the recording. The information can include a customer ID, account ID, or transaction code. The metadata field allows you to provide data like:
  - Did this call result in a sale? Yes/No.
  - What was the dollar value of the sale?

The date can come from the IVR data or the Enterprise data managed through CAD.
Identifying KPIs

You need to identify the business goals for the contact center for the current year and incorporate those goals into the key performance indicators (KPIs). For example, your contact center’s business goals could be:

- Increase revenue.
- Improve customer satisfaction.
- Reduce overall cost.

When you know what your business goals are you can incorporate those goals as the KPIs in the agent evaluation forms. This allows you to align your agents’ goals with the business goals for the contact center. You can then use the evaluation forms to measure your agent’s performance against your contact center’s business goals.

When you break down the business goals, you need to identify the areas of challenges and the metrics you have for success in meeting those business goals. For example, you can break the business goals into:

- First Contact Resolution (FCR).
- Sales process and skills.
- Product knowledge—You can use call evaluation to identify agents who do not have sufficient product knowledge, and then provide training to improve their product knowledge. For example, you might want to consider the following questions when evaluating an agent:
  - Does the agent have deep product knowledge?
  - Is this a critical indicator or a challenge area?
- Agent proficiency with tools—Agents sometimes have to deal with a wide variety of tools when they deal with a customer. For example, order entry tools, agent productivity tools, database tools, or custom software tools designed for the organization. You can use the evaluation to monitor agent proficiency with your contact center’s tools, and then provide training to improve their tool proficiency.
- Average call duration—Some calls are longer than others. You can use the evaluation to understand what impact factors result in longer calls, and then provide solutions that result in fewer long calls, and improve the average call duration.
Guidelines for Evaluation Forms

Consider the following when you create an evaluation form.

• Identify the activity type (for example, call recording, live monitor of voice or screen, counter work, chat, or other social media) you want to evaluate, and create an evaluation form for that specific contact. This allows Quality Management to accurately report non-call activities in the Dashboard and Reporting applications.

• Clearly outline factors to rate performance. For example, how does the agent perform when:
  - Handling an application.
  - Greeting the customer.
  - Entering an order or using tools during the order entry.
  - Empathizing with a caller—You might want to consider the following questions when evaluating the agent’s empathy:
    - How does the agent handle the caller’s emotional state?
    - How well does the agent empathize with the caller?
    - How does the agent ensure a positive outcome at the end of a call?
    - What does the agent do at the close of the call?
  - Closing a call.

• Align the evaluations with the contact center’s business goals and available training.
  - Do not create an evaluation form that covers every possible scenario.
  - Focus on a few critical areas, like how an agent resolves a customer issue or how well and agent implements new initiatives. For example, if your call center’s focus is on capitalizing up-sell opportunities, then make that the focus of your evaluation.

An evaluation that is aligned with the contact center’s business goals provides quantitative measurements of agents while related training and incentive programs are rolled out.

• Do not go overboard when creating an evaluation.
  - Try to limit your evaluation to three or four measurements.
  - Identify the top three or four KPIs you want to evaluate for this quarter or year.
  - Limit the total number of questions to 20 to 30 in the evaluation form so you can quickly complete the form.
You can always add additional sections in the form, or better yet, replace existing questions when you resolve issues like greeting customers or handling an application.

- Identify the key categories. Allow no more than 10 categories.
- Identify questions associated with each category. Allow no more than 10 questions per section. Yes/No questions are preferred.
- Organize your form for ease of evaluation. Match the questions to the call flow to enable evaluations on the fly.
- Apply weighting and scoring where relevant.
- Identify key points of “failure.” If the questions fails, the entire evaluation fails.

- Ensure the areas you are measuring have corresponding training materials or actions. Establish a training or mentoring program to improve agent performance and address inadequacies.

The goal is to improve the proficiency for the entire contact center and help agents struggling in specific areas to gain a level of proficiency.

**Guidelines for Evaluation Form Questions**

Consider the following tips when writing evaluation form questions.

- Try to avoid long or complex questions, and do not include questions within a question.
  - Limit the scope of a question to a single measurable event. For example, “Did the agent greet the customer with their first and last name?”
  - Make the question clear to both the evaluator and the agent on how the agent performed.
  - Simple questions allow managers and supervisors to investigate the root cause of an agent’s low score.
- Use questions that require a yes/no answer whenever possible.
  - Yes/No questions provide clear and concise answers.
  - Yes/No questions require less documentation and collaboration efforts to get consistent evaluation measurements.

Numerical ranges require documentation criteria for each number in the range. This makes collaboration efforts between multiple evaluators difficult.

- Organize your questions by placing them into distinct categories or sections.
  - Categorizing questions allows you to produce detailed reports about agent and team performance in each category.
- Match questions and sections to the flow of a typical call to make it easier for evaluators to score agent performance. For example, you could create three sections named Greeting, Order Entry, and Closing.
- Indicate the relative importance of questions and sections by assigning them different weights.
- Use no more than 10 sections in an evaluation form.
- Use no more than 10 questions in a section.
- Decide whether there are any key points of “failure.”
  - Mark questions that address critical behavior (such as courtesy) as KPIs. If such a question is scored negatively, the entire evaluation fails.

Maximizing Quality Management Value through Effective Evaluations

The evaluation is the net result you get out of a quality management recording solution. It starts with the recording but it is really the evaluation where you can separate the excellent agent behavior and identify the areas where agents need improvement.

- Prioritize your initiatives—Start with the highest value/highest priority.
- Establish a level of success—This is the desired behavior.
- Create a log of measurements and compare scores over time—Pick an evaluation form and stay with it for at least a quarter so you can measure improvement over time and verify if your training and coaching is improving performance over this time period.
- Review agent evaluations and play back calls to determine root cause—Find out where you are having problems and improve training through root cause analysis.
- Make agent, team, and organizational comparisons—Measure progress at all levels.
- Move on when you have established success—When you no longer have problems in one section of the evaluation, for example agent greetings, you can remove it from the evaluation. As your contact center’s business goals change you can add new sections to the form to continually improve the performance of your agents.
Evaluation Form Templates

The Evaluation Form Templates window (Figure 32) lists available templates you can use to create an evaluation form in the Evaluation Form Administration window.

Figure 32. Evaluation Form Templates window

Table 38 describes the default templates.

Table 38. Evaluation form templates

<table>
<thead>
<tr>
<th>Template Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blank Template</td>
<td>Configured for mixed question types that are either scored on a scale of 0 to 5 or answered with Yes or No. The template has no pre-existing sections or questions.</td>
</tr>
<tr>
<td>Template 0–5</td>
<td>Configured for questions that are scored on a scale of 0 to 5. The template comes with pre-existing sections and questions.</td>
</tr>
<tr>
<td>Template Mixed Questions</td>
<td>Configured for mixed question types that are either scored on a scale of 0 to 5 or answered with Yes or No. The template comes with pre-existing sections and questions.</td>
</tr>
</tbody>
</table>
Evaluation Form Administration

The Evaluation Form Administration window (Figure 33) lists available evaluation forms. From this window you can create, rename, delete, and copy evaluation forms. An evaluation can be based on an existing template or a blank form.

**Figure 33. Evaluation Form Administration**

<table>
<thead>
<tr>
<th>Template Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Template Yes-No</td>
<td>Configured for questions that are answered with Yes or No. The template comes with pre-existing sections and questions.</td>
</tr>
</tbody>
</table>

**Creating an Evaluation Form**

Use this task to create a new evaluation form.

**TASK**
1. In the navigation tree, select Recordings > Quality Management > Evaluation Forms > Forms.
**STEP RESULT:** The Evaluation Form Administration window appears.

2. Click New.

**STEP RESULT:** The Evaluation Form Name dialog box appears.

3. Type a unique name for the evaluation form and then click OK.

**STEP RESULT:** The Evaluation Form Templates dialog box appears.

4. Choose a template from the drop-down list, and then click OK.

**STEP RESULT:** Quality Management adds the new evaluation form to the list of forms at the top of the Evaluation Form Administration window.

**AFTER COMPLETING THIS TASK:**

You can now configure the newly-created evaluation form by completing the information on each tab on the lower part of the window.

**Details Tab**

The Details tab displays a form’s properties. It appears at the bottom of the Evaluation Form Templates window and the Evaluation Form Administration window.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>A descriptive name of the form or template. The default description is the name of the template used to create the form.</td>
</tr>
<tr>
<td>Original Author</td>
<td>The name of the person who originally created the form or template. The default is Administrator.</td>
</tr>
<tr>
<td>Last Author</td>
<td>The name of the person who last modified the form or template. The default is Administrator.</td>
</tr>
<tr>
<td>Needs Improvement Percentage</td>
<td>The evaluation score range that indicates the agent’s performance needs improvement. Default is 0–74%. If you change the value, all other score ranges change accordingly.</td>
</tr>
<tr>
<td>Meets Expected Percentage</td>
<td>The evaluation score range that indicates the agent’s performance meets expectations. Default is 75–89%. If you change the value, all other score ranges change accordingly.</td>
</tr>
</tbody>
</table>
### Field Description

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exceeds Expected Percentage</td>
<td>The evaluation score range that indicates the agent’s performance exceeds expectations. Default is 90–100%. This field is not editable. The value in it depends on the values set in the lower two score range fields.</td>
</tr>
<tr>
<td>Status</td>
<td>The default status is Editable. Do not change the status of an evaluation form to Active until you finished modifying the evaluation form. You can only change the status for an evaluation form listed in the Evaluation Form Administration window. You cannot change the status for an evaluation form template in the Evaluation Form Templates window. See “Form Status” on page 140 for more information about statuses.</td>
</tr>
</tbody>
</table>

**Configuring an Evaluation Form’s Details**

Use this task to configure an evaluation form’s details.

**TASK**

1. Select the form in the list of forms at the top of the Evaluation Form Administration window.

2. Select the Details tab, and complete the fields as desired.

   **STEP RESULT:** The form’s properties appear in the tabbed section at the bottom of the window.

3. When done, click Save.
Form Status

A form’s status determines if it is available for use and if it can be modified. Table 40 describes the possible states.

Table 40. Form Statuses

<table>
<thead>
<tr>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Editable</td>
<td>The form can be modified, renamed, and deleted. It is not yet available for evaluators to use.</td>
</tr>
</tbody>
</table>
| Active  | The form is released to be used by evaluators, supervisors, or managers. Everything that does not effect the score in the evaluation can be modified, including:  
- Details tab (including ranges)  
- Settings tab  
- Section names (not weights or number of sections)  
- Question text or description (not number of questions, type, KPI, or weights)  
An active form cannot be deleted. |
| Inactive| The form is removed from use by evaluators. It will be deleted automatically as soon as all evaluations based on it are removed from the database. |

Figure 34 displays normal life cycle of an evaluation form.

Figure 34. Form lifecycle
Once you have changed a status to the next in line, you cannot go back to the previous status. Also, you cannot skip a status (for example, go from Editable to Inactive).

**Changing a Form’s Status**

Use this procedure to change the status of a form.

**Task**
1. In the navigation tree, select Recordings > Evaluation Forms > Forms.

   **Step Result:** The Evaluation Form Administration page appears.

2. Select the form whose status you wish to change from the list of forms at the top of the page.

3. On the Details tab, in the Status section, select the desired status (in accordance with the normal form lifecycle), and then click Save.

**Settings Tab**

The Settings tab displays the settings for evaluation, approval, and alerts. It appears at the bottom of the Evaluation Form Templates window and the Evaluation Form Administration window.

**Table 41.** Settings tab fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Managers Evaluate</td>
<td>Select this check box if you want all managers to be able to evaluate contacts that use this evaluation form and that are made by agents in their group.</td>
</tr>
<tr>
<td>All Supervisors Evaluate</td>
<td>Select this check box if you want all supervisors to be able to evaluate contacts that use this evaluation form and that are made by agents in their team.</td>
</tr>
</tbody>
</table>
Select one or more of the following roles if you want to require evaluation approval for contacts that use this evaluation form.

- Evaluator
- Manager
- Supervisor

Managers and supervisors can approve evaluations for agents in their teams or groups. Evaluators can approve evaluations for agents from all groups.

When you select one or more of these roles, Quality Management Administrator enables the Alerts when Evaluation Needs Approval check box.

When you clear one or more of these check boxes, any evaluations in the Needs Approval state automatically changes to the Scored state for the selected roles.

Select this check box if you want to send an alert when an evaluation is scored. When you select this check box, Quality Management Administrator automatically selects the following options.

- Agent’s Manager(s)—Quality Management sends an alert to the agent’s manager(s) when an evaluation is scored.
- Agent’s Supervisor(s)—Quality Management sends an alert to the agent’s supervisor(s) when an evaluation is scored.
- Agent/Knowledge Worker—Quality Management sends an alert to the agent or knowledge worker when their evaluation form is scored.

If you only want Quality Management to send an alert to a specific role (for example, Agent’s Supervisor(s)), clear the remaining check boxes (for example, Agent’s Manager(s) and Agent/Knowledge Worker).

Select this check box if you want to send an alert when an evaluation needs approval. When you select this check box, Quality Management Administrator automatically selects the following options.

- Evaluator(s)—Quality Management sends an alert to evaluator(s) when an evaluation needs approval.
- Agent’s Manager(s)—Quality Management sends an alert to an agent’s manager(s) when an evaluation needs approval.
- Agent’s Supervisor(s)—Quality Management sends an alert to an agent’s supervisor(s) when an evaluation needs approval.

If you only want Quality Management to send an alert to a specific role (for example, Agent’s Supervisor(s)), clear the remaining check boxes (for example, Evaluator(s) and Agent’s Manager(s)).
Configuring an Evaluation Form’s Settings

Use this task to configure an evaluation form’s settings.

**Task**

1. Select the form in the list of forms at the top of the Evaluation Form Administration window.

2. Select the Settings tab, and complete the fields as desired.

**Step Result:** The form’s settings appear in the tabbed section at the bottom of the window.

3. When done, click Save.

**Sections Tab**

You can assign a weight to each section that can affect how an evaluation is scored.

There can be a maximum of 10 sections in a form. The score weight percentages assigned to the sections must add up to 100 percent. Sections are automatically numbered from 1 to 10.

You can assign zero (0) to a section weight if there are more than one section in the Evaluation form. All questions within the 0-weight section must add up to 100 percent. The questions scored in a 0-weight section are not included in the overall score. You might want to create a 0-weight section when you want to track questions that should not affect the overall score.

**Understanding How Sections are Weighted**

For this example, assume the completed form has two sections called Greet and Assess. The Quality Management administrator who set up the evaluation form determined that the score of the Greet section would contribute 40% towards the overall score and the score of the Assess section would contribute 60%. A section weight is indicated on each section tab. The sum of all of the section weights must be 100.

These weights are applied after all sections are scored to arrive at the overall score (as a percentage) for the evaluation.

The overall score is calculated as follows:

- Section score (as a percentage) × section weight = weighted section score.
- Sum of all weighted section scores = total score (as a percentage).
In this example:

- Greet section = 60% x 0.4 = 24%
- Assess section = 80% x 0.6 = 48%
- 24% + 48% = 72% overall score

**Managing Sections**

**TASK**

- To add a new section, click New under the Sections tab, type a name for the new section, and then click OK. Enter a score weight for the section, and then click Save.

**STEP RESULT:** The Question tab appears the first time you add a new section.

- To edit a score weight for a section, double-click the score weight percentage field, delete the number that is already in the field by pressing the Delete key, then type the new weight.
- To rename a section, select the section, click Rename, type the new name in the Section Name dialog box, and then click OK.
- To delete a section, select the section and click Delete, click Yes to dismiss the Delete Section dialog box, and then click Save.

**ADDITIONAL INFORMATION:** After you delete a section, you must change the score weights of the remaining sections so that they once again add up to 100%.

**Questions Tab**

The Questions tab allows you to:

- Enter up to 100 questions per form with a limit of ten sections per form.
- Enter a combined maximum of 500 characters in the Question and Description fields.
- Use a combination of answer of Yes/No or 0-5 scale questions. For example, your evaluation can include not only Yes/No questions about an agent’s mandatory skills but also 0-5 questions about the agent’s soft skills.
- Adjust the weight of each question. You can specify a weight up to two decimal places (for example, 12.55%) or you can assign the same weight to each question by clicking the Weigh Questions Evenly button. The weights of all the questions in a section must add up to 100%. See “Understanding How Sections are Weighted” on page 143.

If you used the Blank Template, you must create your own questions.
The Questions tab appears at the bottom of the Evaluation Form Templates window and the Evaluation Form Administration window when you add a section.

**Figure 35. Questions tab**

The Questions tab displays up to ten subordinate tabs. The names of these tabs are defined in the Sections tab. See “Sections Tab” on page 143.

**Table 42. Settings tab fields**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weigh Questions Evenly</td>
<td>When selected, each question has the same weight. When cleared, you must enter the weight for each question.</td>
</tr>
<tr>
<td>Number</td>
<td>The number assigned to the question.</td>
</tr>
<tr>
<td>Question</td>
<td>This field contains a question in the evaluation form.</td>
</tr>
<tr>
<td>Description</td>
<td>This field allows comments for a question in the evaluation form. The text in this field should explain the scoring criteria so that evaluations are scored consistently. When a user moves the cursor over the question in the evaluation form in Workforce Optimization, a popup dialog displays the text in this field to the user.</td>
</tr>
<tr>
<td>Type</td>
<td>The type of questions. Possible types are:</td>
</tr>
<tr>
<td></td>
<td>• Yes-No</td>
</tr>
<tr>
<td></td>
<td>• 0-5</td>
</tr>
<tr>
<td>Score Weight</td>
<td>Adjust the weight of each question. The weights of all the questions in a section must add up to 100%. The weight for each question will show a percentage value that includes up to 2 decimal places.</td>
</tr>
</tbody>
</table>
**Understanding How Questions are Weighted**

The maximum score for a section is 100%, no matter how many questions it contains.

For example, in a section with 3 questions:

- Question 1 has a weight of 50%
- Questions 2 and 3 each have a weight of 25%

This means question 1 is worth a maximum of 50 points and questions 2 and 3 are each worth a maximum of 25 points.

If a 0-5 question has a weight of 50%, then points are given for each possible score as follows:

- 1=10 points
- 2=20 points
- 3=30 points
- 4=40 points
- 5=50 points

If a 0-5 question has a weight of 25%, then points are given for each possible score as follows:

- 1=5 points
- 2=10 points
- 3=15 points
- 4=20 points
- 5=25 points

If a Yes/No question has a weight of 50%, then points are given for each possible score as follows:

- No=0
- Yes=50

If a Yes/No question has a weight of 25%, then points are given for each possible score as follows:

- No=0
- Yes=25
Table 43 through Table 45 show the results for several sections in a sample evaluation form.

Table 43. Scored example for a 3 question section

<table>
<thead>
<tr>
<th>Question</th>
<th>Weight</th>
<th>Type</th>
<th>Score</th>
<th>Weighted Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>50</td>
<td>0-5</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>2</td>
<td>25</td>
<td>0-5</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>25</td>
<td>Yes/No</td>
<td>Yes</td>
<td>25</td>
</tr>
</tbody>
</table>

Section Score 80%

Table 44. Scored example for a 4 question section

<table>
<thead>
<tr>
<th></th>
<th>Weight</th>
<th>Type</th>
<th>Score</th>
<th>Weighted Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>60</td>
<td>0-5</td>
<td>3</td>
<td>36</td>
</tr>
<tr>
<td>2</td>
<td>15</td>
<td>0-5</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
<td>Yes/No</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>Yes/No</td>
<td>Yes</td>
<td>5</td>
</tr>
</tbody>
</table>

Section Score 53%

Table 45. Scored example with N/A as an answer to one of the questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Weight</th>
<th>Type</th>
<th>Score</th>
<th>Weighted Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>60</td>
<td>0-5</td>
<td>N/A</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>15</td>
<td>0-5</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
<td>Yes/No</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>Yes/No</td>
<td>Yes</td>
<td>5</td>
</tr>
</tbody>
</table>

Section Score 42.5%

**NOTE:** An answer of N/A removes that question from the total possible. So for this example, Quality Management bases the score of 43% on a score of 17 out of a total of 40.
The formula used for weighting questions considers the underlying scoring system used today. The following example show this scoring system.

<table>
<thead>
<tr>
<th>Label</th>
<th>No</th>
<th>Yes</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>0</td>
<td>1</td>
<td>-</td>
</tr>
</tbody>
</table>

In the current scoring system, the maximum score per question for a Yes/No question is 1 point. For a 0-5 question the maximum score per question is 5. N/A is ignored.

So the formula used to calculate the weighted score for a single question is:

\[
\text{Weighted score} = \frac{\text{Actual score}}{\text{Maximum score}} \times \text{Weight}
\]

Here are some example calculations for weighted question scores:

<table>
<thead>
<tr>
<th>Question type</th>
<th>Maximum score</th>
<th>Actual score</th>
<th>Weight</th>
<th>Formula</th>
<th>Weighted score</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>5</td>
<td>3</td>
<td>40%</td>
<td>((3/5) \times 0.40)</td>
<td>24%</td>
</tr>
<tr>
<td>0-5</td>
<td>5</td>
<td>2</td>
<td>17%</td>
<td>((2/5) \times 0.17)</td>
<td>6.8%</td>
</tr>
<tr>
<td>Yes/No</td>
<td>1</td>
<td>No</td>
<td>30%</td>
<td>((0/1) \times 0.30)</td>
<td>0%</td>
</tr>
<tr>
<td>Yes/No</td>
<td>1</td>
<td>Yes</td>
<td>45%</td>
<td>((1/1) \times 0.45)</td>
<td>45%</td>
</tr>
</tbody>
</table>

**Managing Questions**

**Task**

- To add a question, Select a section tab under the Questions tab, click New, type the question in the New Question dialog box, and click OK, and then click Save.
- To add a description to a question, select a section tab under the Questions tab, double-click the Description field and type an explanation of the question, and then click Save.
• To change the type of question, select a section tab under the Questions tab, double-click the Type field and choose Yes-No or 0-5, and then click Save.

• To change the KPI associated with a question, select a section tab under the Questions tab, select or clear the KPI check box, and then click Save.

• To change the weight assigned to a question, select a section tab under the Questions tab, either click the Weight Questions Evenly button to assign the same weight to each question in the section, or double-click the Score Weight field assigned to a question and type the percentage value into the field.

**ADDITIONAL INFORMATION:** The weights of all the questions in a section must add up to 100%.

• To delete a question, select a section tab under the Question tab, select the question you want to delete, and then click Delete. Click OK to dismiss the Delete Question dialog box, and then click Save.

**STEP RESULT:** Quality Management Administrator removes the question from the list.

---

**Archive Workflows**

This topic describes the Archive Workflow Administration window and provides tasks to create and maintain archive workflows.

**Allowing Access to Archived Recordings**

Use this task to allow agents and knowledge workers access to their archived recordings.

**TASK**

1. In the navigation tree, select the Recordings > Archive node.

   **STEP RESULT:** The Archive Recordings Administration window appears.

2. To allow agents or knowledge workers access to their own archived recordings, select the Allow Agents To Access Archive check box.

3. Click Save.

   **STEP RESULT:** The Recordings application appears in the Workforce Optimization when agents and knowledge workers log on.
Archive Workflow Administration

Use the Workflow Administration window (Figure 36) to create archive workflows based on team. The archive workflow includes specific rules and classifiers to designate the types of contacts you want to record. These calls will be recorded for archive purposes, unless later tagged as quality management calls.

Figure 36. Archive Workflow Administration window
## Archive Workflows

Lists the existing archive workflows. To modify the workflows that appear in this list, choose one of the following options.

- **New**—Add a new workflow to the list.
- **Rename**—Change the name of an existing workflow.
- **Delete**—Remove a workflow from the list.

Rename and Delete are enabled when you select an archive workflow from the list.

## End of Day

The End of Day is when the uploading process begins. Recording still continues, but those recordings are uploaded after the next End of Day. Enter the time for the end of the work day in 24-hour format.

If the options are changed during the day, they do not go into effect until the archive workflow is reloaded just before the End of Day.

If the Immediate Record Upload check box is selected, the End of Day time only applies to recordings made by the Server Recording (SPAN) service.

## Immediate Upload (Desktop Recording Only)

When this check box is selected, Desktop Recordings (Endpoint) associated with this workflow are immediately uploaded after the recording completes. When the check box is clear, the normal upload setting rules are in effect. It is possible, however, that Desktop Recordings waiting for upload can be lost if an agent’s PC crashes. Enabling immediate uploading prevents this problem.

If you change the Immediate Upload option during the day, the change does not go into effect until the archive workflow is reloaded after the End of Day.

**NOTE:** Immediate Upload does not apply to recordings made by the Server Recording (SPAN) or Network Recording service.

## Recording Retentions

Set the length of time you want the various types of recordings to be retained.

## Available Teams

Available teams appear in this list.

## Assigned Teams

Teams assigned to this archive workflow appear in this list. A team can belong to only one archive workflow at a time.

**NOTE:** A team can belong to one archive workflow and one quality management workflow.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
</table>
| Archive Workflows | Lists the existing archive workflows. To modify the workflows that appear in this list, choose one of the following options.  
- **New**—Add a new workflow to the list.  
- **Rename**—Change the name of an existing workflow.  
- **Delete**—Remove a workflow from the list. Rename and Delete are enabled when you select an archive workflow from the list. |
| End of Day | The End of Day is when the uploading process begins. Recording still continues, but those recordings are uploaded after the next End of Day. Enter the time for the end of the work day in 24-hour format.  
If the options are changed during the day, they do not go into effect until the archive workflow is reloaded just before the End of Day.  
If the Immediate Record Upload check box is selected, the End of Day time only applies to recordings made by the Server Recording (SPAN) service. |
| Immediate Upload (Desktop Recording Only) | When this check box is selected, Desktop Recordings (Endpoint) associated with this workflow are immediately uploaded after the recording completes. When the check box is clear, the normal upload setting rules are in effect. It is possible, however, that Desktop Recordings waiting for upload can be lost if an agent’s PC crashes. Enabling immediate uploading prevents this problem.  
If you change the Immediate Upload option during the day, the change does not go into effect until the archive workflow is reloaded after the End of Day.  
**NOTE:** Immediate Upload does not apply to recordings made by the Server Recording (SPAN) or Network Recording service. |
| Recording Retentions | Set the length of time you want the various types of recordings to be retained. |
| Available Teams | Available teams appear in this list. |
| Assigned Teams | Teams assigned to this archive workflow appear in this list. A team can belong to only one archive workflow at a time.  
**NOTE:** A team can belong to one archive workflow and one quality management workflow. |
Creating an Archive Workflow

Use this task to create a new archive workflow.

**TASK**

1. In the navigation tree, select Recordings > Archive > Workflows.

   **STEP RESULT:** The Archive Workflow Administration window appears.

2. Next to the Archive Workflows section, click New.

   **STEP RESULT:** The Archive Workflow Name dialog box appears.

3. Enter a name for the new archive workflow, and then click OK.

   **STEP RESULT:** The workflow now appears in the Archive Workflows section.

4. Select the archive workflow in the Archive Workflows section.

5. In the Archive Upload section, enter the time for the end of the work day in 24-hour format.

6. If you want recordings to be uploaded as soon as a call is completed, select the Immediate Recording Upload check box in the Archive Upload section.

7. Set the length of time you want to retain recordings marked by agents.

   - Tagged—recordings that have been marked by an agent for retention.
   - Archive—all other recordings.

8. Assign teams to the archive workflow.

   **ADDITIONAL INFORMATION:** A team can belong to only one archive workflow at a time. If a team you want to assign to this archive workflow is already assigned to another archive workflow, it is automatically reassigned to this archive workflow. A warning message is displayed telling you that the team is being reassigned from another archive workflow.

9. When you are done configuring the archive workflow in this window, click Save.
Setting Up Classifiers for an Archive Workflow

Classifiers are filters that determine which calls are recorded. Use this task to set up classifiers for an archive workflow.

**TASK**

1. Under the Archive > Workflows node, select the workflow you just created.

   **STEP RESULT:** The Archive Workflow Classifier Configuration window appears.

2. In the Classifiers section, click New to create a new classifier.

   **STEP RESULT:** The Classifier Name dialog box appears.

3. Enter a name for your new classifier, and then click OK.

   **STEP RESULT:** The new classifier now appears in the classifier navigation tree.

4. In the Classifier Settings section, select one of the following options.

   - **Record**—Select this option to upload recorded calls.
     If you select Record, you must select the call direction you want to record (Inbound, Outbound, or both). You must select at least one call direction.
   - **Don’t Record**—Select this option to exclude specific phone numbers or area codes from recording.

5. Select the type of number you want to use to filter the calls.

   - **Called Number**—If the call is inbound, the Called Number is either the route point number if the call was routed, or the agent extension if the call was direct dial. If the call is outbound, the Called Number is the number of the customer/client.
   - **Calling Number**—If the call is inbound, the Calling Number is the original number from which the caller is dialing. If the call is outbound, the Calling Number is the agent’s extension.

   **NOTE:** If you add phone numbers to the Called Number section, then select Calling Number from the Numbers drop-down list, Quality Management Administrator deletes the phone numbers you added. The reverse is also true. If you add phone numbers to the Calling Number section, then select Called Number from the Numbers drop-down list, Quality Management Administrator deletes the phone numbers you added.
6. Click Add to specify the phone numbers you want to filter.

   STEP RESULT: The Number dialog box appears.

7. Enter the numbers you want to filter. You can enter:

   - Specific numbers (for example, 6125551212)
   - Number ranges using wildcards (for example, 612*, where the * wildcard represents any number of digits, or 612555????, where the ? wildcard represents a single digit)
   - The * wildcard to record all calls

   ADDITIONAL INFORMATION: The numbers cannot contain dashes or parentheses, and must be between 1 and 16 characters long.

8. Click Save to save the classifier settings.

Managing Archive Workflows

TASK

• To edit an existing archive workflow, select the workflow you want to modify under Archive > Workflows, complete your changes, and then click Save.

   STEP RESULT: Quality Management Administrator saves the changes to the modified workflow.

   The modified workflow goes into effect after the agents assigned to the workflow log out and log back in to their Windows session, or after the configured End of Day.

• To delete an archive workflow, select the workflow you want to modify under Archive > Workflows, click Delete, and then click Yes to dismiss the Confirm Deletion dialog box.

   STEP RESULT: Quality Management Administrator deletes the archive workflow.

   The deleted workflow goes into effect after the agents assigned to the workflow log out and log back in to their Windows session, or after the configured End of Day.

   NOTE: Once a workflow is deleted, you cannot adjust the retention times for calls associated with a workflow.
User-Defined Metadata

Use the User-Defined Metadata window (Figure 37) to create and maintain metadata fields.

**Figure 37. User-Defined Metadata window**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Name</td>
<td>The metadata field name appears in the search results and the contact information.</td>
</tr>
<tr>
<td>Key Name</td>
<td>A unique identifier for the metadata field. APIs use the unique identifier for the metadata field. The unique identifier allows a maximum of 39 characters. The Key Name field does not allow the following characters.</td>
</tr>
<tr>
<td></td>
<td>• space</td>
</tr>
<tr>
<td></td>
<td>• &amp; (ampersand)</td>
</tr>
<tr>
<td></td>
<td>• = (equal sign)</td>
</tr>
</tbody>
</table>
Managing Metadata Fields

**TASK**

- To add a metadata field, select the Recordings > Metadata node, click Add, complete the fields, and then click OK to dismiss the Add/Edit Metadata Information dialog box.

- To edit a metadata field, select the Metadata field you want to edit from the User-Defined Metadata window, click Edit, complete your changes, and then click OK to dismiss the Add/Edit Metadata Information dialog box.

**STEP RESULT:** Your changes appear in the list of metadata fields on the User-Defined Metadata window.

- To delete an metadata field, select the Metadata field you want to remove from the User-Defined Metadata window, click Remove, and then click Yes to dismiss the Confirm Deletion dialog box.

**STEP RESULT:** Quality Management Administrator deletes the metadata.

Export Recordings Administration

Contact recordings are stored in a format that can be played only by Quality Management. However, recordings can be exported from the Recordings application in Workforce Optimization. You can export a recording to the following formats, which are playable in other playback software (such as Windows Media Player):

- WAV format (uncompressed audio)
- WMA (compressed audio)
• WMV (compressed audio/video)

Quality Management Administrator disables the export feature by default. From the Export Recordings Administration window, you can enable the export of recordings by role.

**Enabling the Export of Recordings**

Use this task to enable the export of Quality Management recordings.

**TASK**

1. In the navigation tree, select the Recordings > Export node.

   **STEP RESULT:** The Export Recordings Administration window appears.

2. Select the check boxes next to the roles you want to be able to export recordings.

   **STEP RESULT:** If you select the Enable Export of Recordings check box, Quality Management Administrator automatically selects all roles. If you clear the Enable Export of Recordings check box, Quality Management Administrator automatically clears all roles.

3. Click Save.
**Call Events Administration**

The Call Events Administration window allows you choose the type of recording events you want Quality Management to mark in a recording. When enabled, a Workforce Optimization user can search for recordings that have the specified silence or talkover events from the Recordings application.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Save TalkOver Events</td>
<td>When selected, Quality Management saves information about talkover events. The Save TalkOver Events check box is clear by default. A talkover event is a time when both parities on the call are talking simultaneously. Changes to this event configuration take effect after the next End of Day.</td>
</tr>
<tr>
<td>TalkOver Event Minimum Duration</td>
<td>The minimum amount of time in seconds for a talkover event. Quality Management only saves information about talkover events with a duration that is equal to or greater than the number of seconds specified in this field. You can specify from 1 to 3600 seconds (1 hour). The default is 10 seconds. This threshold setting is used during after-call processing and applies to all calls. If you change this setting, all previously processed calls use the older threshold settings. Using a low threshold (for example, 3 seconds) stores more information about events than a high threshold (for example, 30 seconds). If you specify a 30 second threshold, a user cannot search for recordings with talkover events that are under 30 seconds. Quality Management does not save information about talkover events below the specified minimum duration.</td>
</tr>
<tr>
<td>Save Silence Events</td>
<td>When selected, Quality Management saves information about silence events. The Save Silence Events check box is clear by default. A silence event is a time when neither parties on the call are talking. Changes to this event configuration take effect after the next End of Day.</td>
</tr>
</tbody>
</table>
Improving Detection of Silence and Talkover Events

The adaptive Voice Activity Detector (VAD) algorithm uses is very robust and accurate under normal phone call situations. In this case, normal means:

- Minimal to no background noise for both parties on a call.
- Good audio quality.
- One party for each side of a call.
- Each party speaks at normal volume.

The adaptive VAD algorithm has been proven to be 90% accurate through testing under moderately noisy conditions. It can handle background noise (for example, white noise) quite well. Rapid changes in volume and frequency of any background noise can cause inaccuracies as the algorithm adapts to the noise. A constantly changing background noise (for example, a radio playing loudly) will prevent the adaptive VAD algorithm from working, and the results will be inaccurate.

Set minimum threshold values for silence and talkover events that are meaningful to your call center. The threshold values define the granularity of the searches you can run on recorded calls. For example, if you set the minimum duration for a Save Talkover Event to 10 seconds, the user cannot search for recordings with any talkover events of 5 seconds or less because Quality Management only saves talkover events that are 10 seconds or greater. If your users requires greater granularity when searching for a silence or talkover event, then lower the value for the minimum duration of the event.

If your call center does not fit the definition of normal given above (for example, there is a lot of background noise), it might be better to use shorter minimum durations for silence events to account for the noise interfering with correctly identifying silence
events. In a noisy environment, it might not be possible to have a 20-second silence event since a background noise will usually break a contiguous period of silence during a call. For a noisy call center, consider setting the minimum duration of a silence event to 3 seconds for better results. A noisy call center usually results in less overall accuracy for the identification of silence events.

Another tactic you can use to identify silence events in a noisy call center is to modify your search. For example, instead of searching for recordings with a single occurrence of a silence event that is 25 seconds or greater, consider searching for recordings with five or more occurrences of silence events that are 6 seconds or greater. This type of filtering takes into account the shorter, but more frequent silence events that can be found in a noisy environment.

Handling Pause and Hold when Searching for Silence or Talkover events

When a user searches for a silence or talkover event, Quality Management does not include pause and hold events in the search. If a silence event occurs just prior to a pause or hold event, Quality Management saves information about the silence event if the event meets or exceeds the minimum threshold for the event. Quality Management does not look for silence or talkover events when a call is paused or on hold.

Configuring Recording Events

Use this task to configure silence and talkover events.

**TASK**

1. In the navigation tree, select the Recordings > Call Events node.

   **STEP RESULT:** The Call Events Administration window appears.

2. To save information about talkover events, select the Save TalkOver Events check box, and enter the duration of the event in seconds in the TalkOver Events Minimum Duration box.

3. To save information about silence events, select the Save Silence Events check box, and enter the duration of the event in seconds in the Silence Events Minimum Duration box.

4. Click Save.

   **STEP RESULT:** The Recordings application in Workforce Optimization allows users to search for recordings with silence and talkover events in a contact recording.
Desktop Configuration Administration

Desktop Configuration Administration controls the fields that appear in the Recordings application for Workforce Optimization for agents, knowledge workers, and supervisors. Evaluators, archive users, and managers can configure any field (regardless of the Desktop Configuration Administration settings).

The available fields appear under the following categories:

- Organization Fields
- Evaluation Fields
- Date Fields
- Contact Fields
- Analysis Fields
- User Defined Metadata Fields

When you add a new metadata field, it appears in the Show Columns list by default, unless modified by the Quality Management Administrator. On upgrade, the existing metadata files appear in the Available Columns list, unless modified by the Quality Management Administrator.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available Columns</td>
<td>Lists the fields that will not appear in the Recordings table in Workforce Optimization. Fields in the Available Columns list always appear in alphabetical order.</td>
</tr>
<tr>
<td>Show Columns</td>
<td>Lists the fields that will appear in the Recordings table in Workforce Optimization. You can configure the order in which fields appear in this list using the arrow keys.</td>
</tr>
</tbody>
</table>
## Organization Fields

The Organization Fields tab lists the available fields. All fields appear in the Show Columns list by default.

<table>
<thead>
<tr>
<th>Field</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agent ID</td>
<td>The agent’s ID.</td>
</tr>
<tr>
<td>First Name</td>
<td>The agent’s first name.</td>
</tr>
<tr>
<td>Group Name</td>
<td>The name of the group.</td>
</tr>
<tr>
<td>Last Name</td>
<td>The agent’s last name.</td>
</tr>
<tr>
<td>Team Name</td>
<td>The name of the team.</td>
</tr>
</tbody>
</table>

## Evaluation Fields

The Evaluation Fields tab lists the available fields. All fields appear in the Show Columns list by default.

<table>
<thead>
<tr>
<th>Field</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Score</td>
<td>The evaluation score given to the contact.</td>
</tr>
<tr>
<td>Approved By</td>
<td>The name of the manager or supervisor who approved the evaluation.</td>
</tr>
<tr>
<td>Date Evaluated</td>
<td>The date when the contact recording was evaluated.</td>
</tr>
<tr>
<td>Evaluation Calibration</td>
<td>The contact evaluation is marked for calibration.</td>
</tr>
<tr>
<td>Evaluation Form</td>
<td>The name of the evaluation form used to score the contact recording.</td>
</tr>
<tr>
<td>Evaluator Name</td>
<td>The name of the evaluator.</td>
</tr>
</tbody>
</table>
Date Fields

The Date Fields tab lists the available fields. All fields appear in the Show Columns list by default.

<table>
<thead>
<tr>
<th>Field</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>The contact date.</td>
</tr>
<tr>
<td>Time</td>
<td>The time of the contact.</td>
</tr>
<tr>
<td>Time Zone</td>
<td>The time zone where the contact was recorded.</td>
</tr>
</tbody>
</table>

Contact Fields

The Contact Fields tab lists the available fields. All fields appear in the Show Columns list by default.

<table>
<thead>
<tr>
<th>Field</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call Duration</td>
<td>The duration of the contact (length of time between call answered and call dropped) in HH:MM:SS.</td>
</tr>
<tr>
<td>Called Number</td>
<td>The number of the phone that received the call. Displays “unknown” if the called number is unlisted or blocked.</td>
</tr>
<tr>
<td>Calling Number</td>
<td>The number of the phone that made the call. Displays “unknown” if the calling number is unlisted or blocked.</td>
</tr>
<tr>
<td>Contact Type</td>
<td>The type of contact. The valid values in this field are:</td>
</tr>
<tr>
<td></td>
<td>• Call—A contact with a call recording</td>
</tr>
<tr>
<td></td>
<td>• Non-Call—A contact without call recording</td>
</tr>
<tr>
<td>HR</td>
<td>The contact has been marked as an HR contact. The valid values in the HR field are:</td>
</tr>
<tr>
<td></td>
<td>• Yes</td>
</tr>
<tr>
<td></td>
<td>• No</td>
</tr>
<tr>
<td>ID</td>
<td>The contact’s ID.</td>
</tr>
<tr>
<td>Line</td>
<td>The extension the agent used to answer the call.</td>
</tr>
<tr>
<td>Field</td>
<td>Definition</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Reason</td>
<td>The reason the contact was recorded as set in the recording rule (Archive, First, Last, Longest, Shortest, Random, Logging, Tagged, Performance, and New Employee).</td>
</tr>
</tbody>
</table>
| Recording Type | The recording type associated with this device. The valid value in the Recording Type field are:  
  • Server Recording—Contact was recorded using Server Recording (SPAN).  
  • Network Recording—Contact was recorded using Network Recording.  
  • Multiple Registration—Contact was recorded using Multiple Registration method. This method allows you to programmatically add participants to an existing call.  
  • Single Step Conference—Contact was recorded using Single Step Conferencing method. This method allows you to choose register up to three devices at a single, softphone-enabled extension.  
  • Unknown—Contact was recorded prior to 8.7 or the recording type could not be determined.  
  • Endpoint—Contact was recorded using Endpoint recording.  
  • MediaSense Recording—Contact was recorded using MediaSense Recording. |
| State   | The current evaluation state of the recording. The valid values in the State field are:  
  • Scored—Contacts that are claimed by an evaluator, fully scored, and, if approval is required, are approved.  
  • Unscored—Contacts that are as yet unclaimed by an evaluator and unscored.  
  • In Progress—Contacts that are claimed by an evaluator but which are not yet completely scored  
  • Needs Approval—Contacts that are claimed by an evaluator, are fully scored, and are awaiting approval. |
| Training | The contact has been marked as a training contact. The valid values in the Training field are:  
  • Yes  
  • No |
Analysis Fields

The Analysis Fields tab lists the available fields. Only Silence Events and Talk Over Events appear in the Show Columns list by default.

<table>
<thead>
<tr>
<th>Field</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVG Silence</td>
<td>The average silence time in HH:MM:SS.</td>
</tr>
<tr>
<td>AVG Talk Over</td>
<td>The average talkover time in HH:MM:SS.</td>
</tr>
<tr>
<td>MAX Silence</td>
<td>The duration of the longest silence event that was detected in HH:MM:SS.</td>
</tr>
<tr>
<td>MAX Talk Over</td>
<td>The duration of the longest talkover event that was detected in HH:MM:SS.</td>
</tr>
<tr>
<td>MIN Silence</td>
<td>The duration of the shortest silence event that was detected in HH:MM:SS.</td>
</tr>
<tr>
<td>MIN Talk Over</td>
<td>The duration of the shortest talkover time that was detected in HH:MM:SS.</td>
</tr>
<tr>
<td>PCT Silence</td>
<td>The percentage of detected silence time.</td>
</tr>
<tr>
<td>PCT Talk Over</td>
<td>The percentage of detected talkover time.</td>
</tr>
<tr>
<td>Silence Events</td>
<td>The number of detected silence events.</td>
</tr>
<tr>
<td>Talk Over Events</td>
<td>The number of detected talkover events.</td>
</tr>
<tr>
<td>TOT DUR Silence</td>
<td>The total duration of silence time in HH:MM:SS.</td>
</tr>
<tr>
<td>TOT DUR Talk Over</td>
<td>The total duration of talkover time in HH:MM:SS.</td>
</tr>
</tbody>
</table>

User Defined Metadata Fields

The user-defined metadata fields appear in the Available Columns list by default. Text is the only metadata field that appears in the Available Columns list by default until you configure your own metadata fields. See “User-Defined Metadata” on page 155 for information on adding your own metadata fields.
Assigning Columns

**TASK**

1. In the navigation tree, select the Recordings > Desktop Configuration node.

**STEP RESULT:** The Recordings Contact Information tab on the Desktop Configuration Administration window appears.

2. Choose one of the following tabs:
   - Organization Fields
   - Evaluation Fields
   - Date Fields
   - Contact Fields
   - Analysis Fields
   - User Defined Metadata Fields

3. Choose one of the following options to configure the fields that will appear in Workforce Optimization.
   - To move all columns to the Available Columns list, click <\.<.
   - To move all columns to the Show Columns list, click >>.
   - To move multiple contiguous columns to the Available Columns list, click the first column and shift-click the last column you want from the Show Column list and then click <.
   - To move multiple contiguous columns to the Show Columns list, click the first column and shift-click the last column you want from the Available Column list and then click >.
   - To move multiple non-contiguous columns in the Available Columns list to the Show Columns list, use the Ctrl key to select each column, and then click >.
   - To move multiple non-contiguous columns in the Show Columns list to the Available Columns list, use the Ctrl key to select each column, and then click <.

**ADDITIONAL INFORMATION:** Columns in the Available Columns list always appear in alphabetical order.

4. Click Save.
Glossary

ACD
Automatic Call Distributor. A specialized phone system used for handling many incoming calls. The ACD recognizes and answers incoming calls and looks in its database for call routing instructions. It sends the call to a recording, to a voice response unit (VRU), or to an available agent according to the instructions for that call. An ACD normally produces information that tracks both calls and agent performance.

ACD User
A user set up as an agent and/or supervisor and assigned to a team in Unified CCX. Manager, evaluator, and archive user roles can be assigned to ACD users in Quality Management.

Active Call
The currently connected call. An Active Call occurs when the Quality Management user is on a call with one or more parties. A call on hold is still an Active Call. The Active Call starts when the Quality Management user receives the call (phone is ringing) or makes a new call. The Active Call ends when the Quality Management user hangs up the phone.

administrator
A user role that access Quality Management Administrator and configure the system and users for Quality Management. The administrator can also access can access Call Recording and Quality Management in Calabrio ONE Workforce Management and configure the dashboard view by role.

agent
1. The person who handles calls and email in a contact center. Also called a customer service representative or telephone sales representative.
2. A user role in Quality Management with restricted access to Workforce Optimization. Agents have the following Quality Management privileges:
   - View their own quality scores and the aggregate quality scores for their team and group on a dashboard.
   - Export recordings within their scope, if enabled.
   - Review evaluation results on their own scored contacts.
   - Enter comments on their own evaluations.
   - View the agent’s historical reports.
   - Access archive records of the their contacts, if enabled.
AQM license
Advanced Quality Management license. A Quality Management user license that supports both audio and screen recordings, as follows:

- Audio-only recording for archival purposes.
- Screen and audio recordings for quality management purposes.

archive user
A user role in Quality Management that can access to the Recordings application in the Workforce Optimization. Archive users have the following privileges:

- Search, review, and export archive recordings for all of the agents and knowledge workers across the enterprise.

Automated Update
A Quality Management feature used for automatic web or LAN updating to software applications, such as Quality Management. The Automated Update feature quickly determines required updates and then retrieves and applies the necessary patches or installation files using secure protocols.

call recording
An application feature found in Quality Management that captures calls between an agent and another party and stores as files on disk. You can review these files at a later time.

Call Recording license
A Quality Management user license that limits contact recordings to audio recording, archive search, and archive playback. Status and archive reports are available to supervisors and managers only.

Cisco Unified Communications Manager
An enterprise-class IP telephony call-processing system that provides traditional telephony features as well as advanced capabilities, such as mobility, presence, and rich conferencing services.

Cisco Unified Contact Center Express
A Cisco contact center product designed for midmarket enterprise branch, or corporate departments that require a sophisticated customer interaction management solution for up to 300 agents. Cisco Unified Contact Center Express delivers improved operational efficiency, reduces business costs, and improves customer response.

configured user
Any scheduled or recorded agent plus all other users with active login rights to Workforce Optimization applications (for example, supervisors, managers, or quality evaluators). The maximum capacity for configured users is the total number of users who can be configured in Quality Management. See also named user.
contact
A connection via voice or email from a customer to an agent in the customer contact center.

customer service representative
A service representative who handles customer contacts, including account inquiries, complaints, and support calls.

Database API Service
This Quality Management service constantly checks the database to ensure that it is running. If the database stops, the Quality Management Database API Service restarts it. In a Cisco environment, this service also handles product-specific authentication and requests.

day off
A day when an agent is not scheduled to start a shift. The agent might actually end a shift on that day if the schedule day crosses midnight.

DB Cleaner Service
This Quality Management service purges records from the Quality Management database, and media files from the Voice and Screen servers, on a daily basis. The administrator configures the retention period for these files in Quality Management Administrator.

database
A collection of related data or information organized in such a way that it can be easily retrieved or manipulated.

debugging file
A log file (with the *.dbg file extension) that contains diagnostic information that can help resolve issues. Quality Management creates debugging logs by default. If you want debugging turned off, you must edit the appropriate configuration file.

contact center
A business center with two or more persons that provides customer services by phone, email, and fax. Examples of contact centers are help desks, customer service centers, catalog sales centers, reservation centers, telemarketing/collection operations.

Container
The server side of Workforce Optimization that maintains user sessions and forwards Data API requests to the appropriate product’s Data API service.

CTI Manager
A service that runs on the Unified CM and handles JTAPI events for every Unified CM in the cluster. A primary and backup CTI Manager can be specified.
**Desktop Recording service**
A Desktop Recording service, located on the agent’s PC, that is responsible for recording contacts and collecting metadata associated with recorded calls. The Desktop Recording service uploads these recordings to the Voice and Screen servers and the metadata to the v database.

**different day trade**
One agent is scheduled to work, the other agent has the day off on the first date; the reverse is true for the second date.

**email**
Electronic Mail. The transmission, electronically, of letters, memos, and messages from one computer to another.

**error code**
A brief description of a system event.

**evaluator**
A user role in Quality Management that can access the Recordings application in the Workforce Optimization. Evaluators have the following privileges:

- Select, review, and evaluate quality recordings for all groups.
- Review recordings and add comments to evaluations for agents and knowledge works in all groups.
- Approve evaluations, if required.
- Export recordings within their scope, if enabled.
- Update previously scored evaluations.

**Extension Mobility**
A Cisco Unified Communications Manager feature that requires a user to log in to a phone so that the user’s extension appears on the phone.

**FTS**
File Transfer Servlet.

**hard IP phone**
A physical IP phone connected to the network.

**hot desking (or hoteling)**
One desk shared between several people who use the desk at different times. This work surface can be an actual desk or just a terminal link. Companies where not all the employees are in the office at the same time, or not in the office for very long at all regularly use hot desking.
h**otel**ing
The practice of providing office space to employees on an as-needed rather than on the traditional, constantly reserved basis. This reduces the amount of physical space that an enterprise needs, lowering overhead cost while (ideally) ensuring that every worker can access office resources when necessary. Employees can retain their own telephone number extension and voice mailbox.

Jetty Service
The Quality Management Jetty Service webserver hosts the Quality Management Reports engine, File Transfer Servlet (FTS), Server API engine, and Licensing engine.

k**nowledge worker**
1. A subject matter expert in the company with whom agents consult. A knowledge worker can participate in agent phone calls to help solve problems for customers.
2. A user role in Quality Management that can access the following applications in Workforce Optimization: Dashboard, Recording, Reporting. Knowledge workers have the following privileges:
   - View their own quality scores and the aggregate quality scores for their team and group on a dashboard.
   - Export recordings within their scope, if enabled.
   - Review evaluation results on their own scored contacts.
   - Enter comments on their scored evaluations.
   - View their own historical reports.

K**PI**
Key Performance Indicator. The most critical measures of performance in any organization, are typically productivity measures.

In Quality Management, a KPI question is so important that, if an evaluator chooses zero for the score (for questions scored on a scale of 0–5) or No (for questions scored as Yes/No), the score for the entire evaluation is zero. An example of a KPI question is “Did the agent refrain from using foul language?”

L**ast Call**
The previously recorded call. Any valid recording commands, sent after the call ends and before the Quality Management user receives or makes another call, apply to the Last Call. Quality Management does not count the last call before the configured End of Day, user logout, service shutdown, or CTI service disconnect as the last call.

l**og file**
A log file (with the *.log file extension) contains event messages and, if problems occur, warning and other error messages. All messages in log files are identified by an error code.
maintenance release (MR)
The base release for the product. Install an MR on all servers and clients. The Quality Management server uses the Automated Update feature, when you enable this feature, to update the clients when you install an MR on the Quality Management server. All previous ESes and SRs are removed when you install the latest MR.

manager
A user role in Quality Management that can access the following applications in Workforce Optimization: Quality Dashboard, Recording, Live Monitoring, and Reporting. Managers have the following privileges:

- View dashboard with their group’s quality scores and details of individual teams within their group.
- Review evaluation results on all of their group’s scored contacts.
- Enter comments on their group’s evaluations.
- Approve evaluations for agents in their groups, if required.
- Export recordings within their scope, if enabled.
- Designate contacts for retention as Training or HR contacts.
- View agent, team, group, and enterprise-level historical reports.
- Evaluate contacts for their group, if enabled to do so.
- Access archive recordings for their group.

metadata
A description of data in a source, distinct from the actual data used to catalog archived information; for example, customer ID, account ID, or a transaction code.

MIB
Management Information Base. A defined hierarchy of data values managed by a single SNMP Agent application.

Monitoring and Notification (Mana) service
This Quality Management service monitors the system in real time and notifies administrators via event viewer or email when problems occur. The problems that trigger notification are selected in Recording Administrator.

Monitor service
This Quality Management service works in conjunction with the Network Recording. The Monitor captures the packets that the Network Recording records.

Network Recording
A recording method that uses the Cisco Unified CM Recording functionality to capture voice for recording and the built-in bridge (BIB) functionality of capable IP phones to send voice streams from the device being recorded to the Network Recording service. The advantage of the Network Recording method is that it does not require you to configure SPAN ports for capturing voice traffic.
Network Recording service
This Quality Management service enables recording for agents who are configured for Network Recording and Server Recording (SPAN).

offer
An agent gives their scheduled day to another agent. When an agent offers their scheduled day, it means the offering agent will not work and the responding agent will work on that day.

OID
Object Identifier. A unique string of digits representing a value defined in an MIB.

Payment Card Industry Data Security Standard (PCI DSS)
A set of requirements designed to ensure that all companies that process, store, or transmit credit card information maintain a secure environment.

PCI DSS
Payment Card Industry Data Security Standard. The PCI DSS is a set of requirements designed to ensure that consumer credit card information is transmitted and stored securely.

PG
Peripheral gateway. In Quality Management, a computer and process that communicates directly with Quality Management. Quality Management recognizes a peripheral gateway for the Unified CCX, and Quality Management products. The PG reads status information from the peripheral and sends it to Quality Management. In a private network configuration, the PG sends routing requests to the Quality Management and receives routing information in return.

PN
Peripheral number. In Quality Management, a number that identifies an individual agent. Quality Management associates a PN with a specific PG.

private trade
A trade between agents where neither agents have shifts that overlap either the previous or following days.

privilege
The permission to perform a transaction. For example, the ability to accept schedule trades or delete skills.

QM license
Quality Management license. A Quality Management user license that supports audio contact recordings only for archival and quality management purposes.

Quality Management administrator
A user that can log into Quality Management Administrator. The Quality Management administrator is responsible for:

• Managing the site configuration
• Configuring the recording server
• Managing the users, teams, and groups
• Configuring the quality management workflows and the archive workflows for recordings

Quality Management Administrator
A Quality Management client application used to assign user roles, set up groups, create and manage evaluation forms, set up workflows for recording customer contacts, set up recording archiving, and maintain the system.

Quality Management user
A non-agent user set up in Quality Management.

raw
An audio file format.

role
A collection of privileges. A user can have one or many roles. Users have the collective privileges across all roles assigned to them. When the user logs into Workforce Optimization, the user can access all roles and privileges assigned to that user. For example, if a user is assigned to both the evaluator and manager roles, the user has access to all privileges assigned to the evaluator and manager roles.

same day trade
The trade is for the same date. Both agents must be scheduled to work for that day.

scheduled day
A day when an agent has been scheduled to start a work shift. The scheduled day might end the next day if the it crosses midnight.

scope
A set of boundaries in which privileges apply.

Screen Recording DB Service
This Quality Management Service is the single point of connection between users and the Quality Management database.

service release (SR)
Contains all patches for all bugs found and fixed since the base release of the product. An SR is cumulative. So, if two SRs are issued against a base release, the second SR contains all the fixes provided in the first SR.

An SR contains fixes for the Quality Management server and/or client. Always install the SR on the Quality Management server. The Quality Management server uses the Automated Update feature, when you enable this feature, to update the clients when you install an SR on the Quality Management server. If the SR contains no fixes for the client side, the Automated Update feature does not update the clients.
You install each SR separately and each SR appears in the Add/Remove Programs window. Separate installation of SRs allows rollback to a previous state. If an SR is server side only, the Add/Remove Program title includes “(Server only).”

Silence
A time when neither the agent or the caller are talking.

SNMP
Simple Network Management Protocol. A common network protocol that describes messages passed between SNMP-enabled applications.

SNMP Agent
An SNMP-enabled application that acts as a client to an SNMP management application by providing data values for registered OIDs.

SNMP GET
An SNMP message used to get a value for a particular OID.

SNMP Management Application
An SNMP-enabled application that can get or set information from a local or remote SNMP Agent application.

SNMP SET
An SNMP message used to set a value for a particular OID.

soft IP phone
A computer application that emulates a hard IP phone and runs on an agent’s PC.

SPAN
Switched Port Analyzer. A feature, also known as port monitoring, of some Cisco switches that allow all the network traffic entering or leaving a switch port to be copied and sent to a destination port. When server monitoring is used, the destination port on the switch is the connection point for the server that is running the packet capturing software.

spx
An audio file format especially designed for speech.

SRTP
Secure Real-time Transport Protocol. An RTP (Real-time Transport Protocol) profile intended to provide encryption, message authentication and integrity, and replay protection to RTP data in both unicast and multicast applications.

supervisor
1. A supervisor is the person who has first-line responsibility for the management of a group of agents, and often is able to monitor agents and system performance.
2. A user role in Quality Management that can access the following applications in Workforce Optimization: Dashboard, Recording, Reporting. Supervisors have the following privileges:
• View dashboard with their team’s and group’s quality scores and details of individual agents within their team.
• Enter comments on their team’s evaluations.
• Export recordings within their scope, if enabled.
• Approve evaluations for agents in their teams, if required.
• Designate recordings in their teams to be retained as Training or HR recordings.
• View agent and team-level historical reports.
• Evaluate contacts for their team, if enabled to do so.
• Access archive recordings for their team.

Sync Service
This Quality Management service reads data every 10 minutes from the ACD and synchronizes that information with Quality Management.

talk over
A time when the agent and the caller are simultaneously talking.

team
A group of agents. An agent can belong to one team.

trade
When one agent trades their scheduled day for another agent’s scheduled day.

Trap
An unsolicited SNMP message sent from an SNMP agent to an SNMP management application.

Upload Controller service
This Quality Management service manages the uploading of recordings and recording metadata to the Voice and Screen servers.

user
A person who can log into Workforce Optimization or Quality Management Administrator. A user can be linked to an agent identity to take calls.

VoIP
Voice over Internet Protocol. A way to carry phones calls over an IP data network, whether on the internet or an internal network.

Workforce Optimization
A comprehensive suite of customer interaction and contact center management software.
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