

Cisco Unified Workforce Optimization

Quality Management Administrator User Guide Version 11.5

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Administrator User Guide

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Introduction

This document explains how to configure Cisco Unified Workforce Optimization Quality Management in a Cisco Unified Contact Center Express (Unified CCX) environment.

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.

The Quality Management Administrator Guide contains the information you need to successfully configure Quality Management Administrator, including:

- Assigning user roles
- Setting up groups
- Creating evaluation forms, manage evaluation forms
- Setting up workflows for recording customer contacts
- Setting up recording archiving
- Maintaining the Quality Management system

Quality Management Administrator controls how devices are configured, calls are recorded, and who has access to Recording and Quality Management.

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

Getting Started

To get started, you need to access Quality Management Administrator. Quality Management Administrator is installed on the Quality Management Web Base server by default during a normal install. You can also install it on a desktop, see the *Desktop Deployment Guide* or the *Installation Guide* for more information.

This topic provides the essential information for logging in to Quality Management Administrator, changing your password, and synchronizing the databases.

Logging into Quality Management Administrator

To log in to Quality Management Administrator:

- 1. Choose Start > All Programs > Cisco > WFO > Quality Management Administrator.
 - The Administrator Login dialog box appears.
- 2. Complete the dialog box as follows, and then click OK or press the Enter key.
 - In a non-Active Directory environment, type administrator in the User Name field and the password that was set up during system installation in the Password field.

Note: The username, administrator, is a default username. You cannot change it. The Username field is not case sensitive and the Password field is case sensitive.

■ In an Active Directory environment, type an AD Account username in the User Name field, the password associated with the AD Account user in the Password field. Select the domain that is associated with AD Account user from the drop-down list in the Domain field.

Quality Management Administrator validates your login credentials.

Changing the Administrator Password

The administrator password must be between 1 and 32 alphanumeric characters long. The password is case sensitive. The password should remain confidential. If your password is no longer confidential, change the password.

Note: You can only change the administrator password in a non-Active Directory environment.

To change the administrator password:

 From the menu bar, choose Settings > Change Administrator Password, complete the fields in the Change Password dialog box, and then click OK.

Synchronizing Databases

To ensure the Quality Management database synchronize correctly with the ACD database, follow these guidelines:

 Unified CCX: set up teams, agents, supervisors, and devices in Unified CCX before you synchronize the Unified CCX database with the Quality Management database.

Quality Management automatically synchronizes changes in the ACD database to the Quality Management database.

To manually synchronize the databases:

On the menu bar, choose File > Synchronize Databases.

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 blocked Java(TM) 2 Platform Standard Edition (SE) binary. To add an exception for this binary, click Unblock and try again.

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

Logging Out of Quality Management Administrator

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

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 Close in the upper right corner of the window.

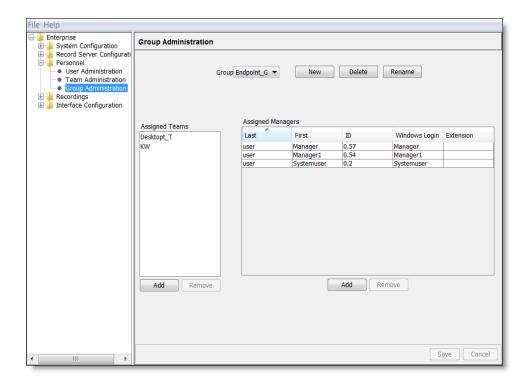
Administrator Interface

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.

The administrator responsibilities are partitioned into hierarchical roles. For more information on these administrator roles and the scope for each role, see *Administrator*.

Note: To perform all administrative functions and receive admin logs, you must run Quality Management Administrator as an administrative user.

The following image shows what an system administrator would see.



Moving Within the Navigation Tree

Use the following methods to move within the navigation tree.

Navigating using the mouse	Navigating using the keyboard
----------------------------	-------------------------------

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

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

To sort a table by multiple columns:

- 1. Press Ctrl and click the primary sort column heading.
- 2. Continue holding down Ctrl and click any other column headings you want to sort the table by.

Configuring Quality Management

System Configuration allows you to initially configure and then later modify the Quality Management environment. There are two ways to access the System Configuration node:

System Configuration Setup (postinstall.exe)—this executable runs provides a limited set of configuration options that are required during initial configuration or to quickly modify certain system settings. Use postinstall.exe when installing or upgrading Quality Management. The steps you see in the postinstall.exe depend on the environment in which you install Quality Management and the options that you choose to configure. The postinstall.exe opens automatically after you install Quality Management.

Note: The Inclusion List does not appear in postinstall.exe. It appears in Quality Management Administrator under the System Configuration node.

Quality Management Administrator (admin.exe)—this executable provides the full set of configuration options, including adding agents when installed on the server. Use admin.exe to manage day-to-day system operational changes or to validate user roles and license assignments.

If you are running Quality Management Administrator on a desktop, some features are disabled under System Configuration. You can only modify these features when you are running Quality Management Administrator or postinstall.exe on the Web Base server.

Modifying the System Configuration

To modify the system configuration information:

- 1. Choose one of the following options:
 - Go to the following folder on the Quality Management server, double-click postinstall.exe.

```
<install folder>\WFO QM\bin\
```

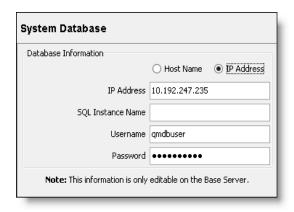
The default path is C:\Program Files\Cisco\WFO_QM\bin\postinstall.exe.

- Log in to Quality Management Administrator. See Logging into Quality Management Administrator for instructions.
- 2. Select the window you want to modify. The selected window appears in the right pane.

- 3. Complete the fields.
- 4. Click Save. Modifications take effect after you save your changes.

System Database

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



Note: You can only change the information in the System Database window from the postinstall.exe or Quality Management Administrator on the Web Base server. The System Database window in Quality Management Administrator on a desktop is read-only.

Field	Description	
Host Name/IP Address	The hostname or IP address of the system operations server (the server on which SQL Server is installed).	
	If you need to specify a configured port on the system operations server where an external SQL server will listen, choose Host Name and use the following format in the IP Address field:	
	<ip address="" hostname="" or="">:<port number=""></port></ip>	
	where <ip address="" hostname="" or=""> is the IP address or hostname and <port number=""> is the configured port number of the system operations server.</port></ip>	
	Example: 10.188.252.11:1455	
	Best Practices: Use a hostname in all instances where you are required to specify a hostname or IP address, if possible.	
SQL Instance Name	The SQL instance name of the Microsoft SQL Server service. Leave this field blank if you want to use the default instance name. The default instance name is automatically assigned when Microsoft SQL Server is installed.	
Username	The username used by the Quality Management's DB Proxy service, for example qmdbuser, to access the system database. This username must be assigned the db_datareader, db_datawriter, and db_owner roles. See "Microsoft SQL Server" in the <i>Installation Guide</i> for more information.	
Password	The password used by the DB Proxy service to access the system database. See "Microsoft SQL Server" in the <i>Installation Guide</i> for more information.	

Configuration Settings Used By Services

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

Service	Configuration settings applied when
Data API Service	Restart the service.

Service	Configuration settings applied when
DB Proxy Service	Restart the service.
Sync Service	No restart required. The next sync period (every 10 minutes) applies the configuration settings.

Update IP Address or Hostname

When upgrading Quality Management, you will be prompted to update the IP addresses or hostnames for the servers.

To modify the IP address or hostname for a server:

- 1. Click Modify, complete the fields, and click OK.
- 2. Repeat step 1 for each additional server.
- 3. Click Continue with These Changes.

To continue without making any changes to the IP address or hostname:

Click Continue without Making Changes.

Data Synchronization

Use the Data Synchronization window to add, modify, or delete the connection information to Unified CCX.

Note: You can only change the information in the Data Synchronization window from the postinstall.exe or Quality Management Administrator on the Web Base server. The Database Synchronization window in Quality Management Administrator on a desktop is read-only.

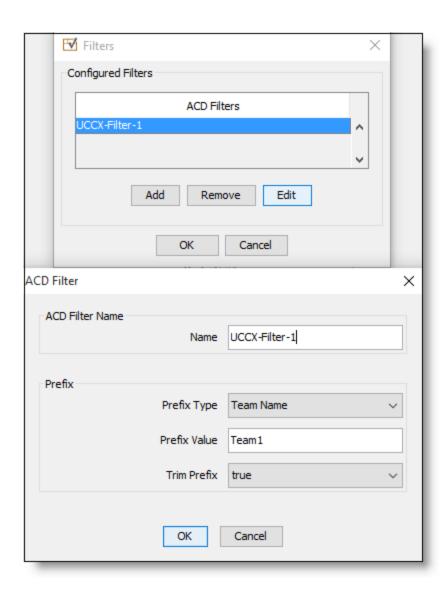
You can configure the connection information to one or more Unified CCXs.

If you modify the information in the Data Synchronization window after the initial installation and configuration, you must restart the Sync services before your changes take effect.

The following window shows the configuration for a Unified CCX.

Note: This information is only editable on the Base Server.		
Side A		
Server Name	uccx115a	
IP Address	10.192.101.155	
Side B		
Server Name	uccx115b	
IP Address	10.192.101.156	
DB Instance Name	uccx115a_uccx	
Port	1504	
User	uccxhruser	
Password	•••••	
ACD Filters		
Filt	ers	

The image below illustrates the Unified CCX filters:



Field	Description	
Add	Add an ACD.	
Rename	Rename a selected ACD.	
Delete	Delete a selected ACD.	
	Note: When you delete an ACD, all associated data (that is, teams and users) will be deleted.	
Unified CCX	,	

Field	Description
Side A Server Name	The name of the Unified CCX server for the Side A (primary) Cisco Unified CC database.
	Note: The server name must match the case of the name on the Unified CCX server. If the server name is all lowercase on the Unified CCX server, you must enter it as all lowercase in this field.
	If the server name contains a hyphen (-), replace the hyphen with an underscore (_). If the server name starts with a number, add the letter "i" to the beginning of the instance name. For example, if the server name is "100-voiceuccx-01", enter "i100_voiceuccx_01".
Side A IP Address	The IP address for the Unified CCX server for the Side A (primary) Cisco Unified CC database.
Side B Server Name	The name of the Unified CCX server for the Side B (secondary) redundant Cisco Unified CC database, if one exists.
	Note: The server name must match the case of the name on the Unified CCX server. If the server name is all lowercase on the Unified CCX server, you must enter it as all lowercase in this field.
	If the server name contains a hyphen (-), replace the hyphen with an underscore (_). If the server name starts with a number, add the letter "i" to the beginning of the instance name. For example, if the server name is "100-voiceuccx-01", enter "i100_voiceuccx_01".
Side B IP Address	The IP address for the Unified CCX server for the Side B (secondary) redundant Cisco Unified CC database, if one exists.
DB Instance Name	The name of the Cisco Unified CCX database. The name is <side a="" name="" server="">_uccx and the field is disabled by default.</side>
Port	The port number used by the Cisco Unified CCX database. The port number is 1504 and the field is disabled by default.

Field	Description
User	Login ID used to access the Cisco Unified CC database and synchronize users in a Unified CCX environment. This user must have read permission to the database. The login ID is uccxworkforce by default.
	Note: If you are using Cisco MediaSense, use uccxhruser for the login ID. This login ID has the permissions required to synchronize users and reconcile contacts. The uccxworkforce login ID does not have permission to use contactcalldetail and agentconnectiondetail tables that are required for reconciliation.
Password	Password used by uccxworkforce to access the Cisco Unified CC database in a Unified CCX environment.
ACD Filters	Allows you to determine what data is synced and determines which devices are available in a telephony implementation. See <i>Touch-Point Filtering</i> for more information.

Configuration Settings Used By Services

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

Service	Configuration settings applied when
ACD Data Syn- chronization Service	Changes take effect immediately.
Reconciliation Service	Changes take effect immediately.

Service	Configuration settings applied when
Sync Service	No restart is required:
	After the initial installation
	After you fix incorrect sync information
	The next sync period applies the configuration settings without restarting the Sync service.
	Best Practices: When there are substantial changes to the database, update the settings in the Cisco Unified CC Database in the following order:
	Stop the Sync service and the Upload Controller service.
	2. Back up the SQMDB catalog.
	Change the configuration settings on the Cisco Unified CC Database window.
	4. Start the Sync service.
	Verify the data by looking for mass deactivations.
	Restart the Upload Controller service. Restarting the Upload Controller services adds new calls to the database.
MANA Service	The next polling period applies the configuration settings.
Data API service	Restart the Data API service.

Touch-Point Filtering

Touch-Point Filtering allows you to determine what data is synced and determines which devices are available in a telephony implementation. A "touch point" is a third party system that has data that can be synced with Quality Management for recording purposes. The ability to filter this data so that Quality Management sees only a subset of the touch point's data is useful in the following environments:

- Multi-tenancy environments where a single ACD/telephony implementation is used by multiple customers and each customer has their own Quality Management installation.
- Environments where an ACD/telephony implementation has more data than Quality

Management requires. For example:

- Only a subset of all extensions are assigned to agents and therefore required for recording purposes.
- Quality Management will only be used by a subset of the call center.

By default, all teams and users are synced and available to be configured in Quality Management Administrator. Touch-Point Filtering allows you to you to configure filters so that Quality Management only has access to the ACD/Telephony data that matches the filter. The available filters depend on the ACD and telephony implementations.

When you add a filter, the ACD Filter dialog box appears. The fields associated with this dialog box are described in the following table.

Field	Description
Name	The name of the ACD filter.
Prefix Type	The type of prefix that Touch-Point Filtering will use to filter the data. In this instance, the data is filtered by Team Name.
Prefix Value	The name of the team. No wildcards are allowed.
	Example: If you enter Team1, both Team1 and Team10 will be synced.
Trim Prefix	Remove the prefix before adding synced information to the Quality Management database. Your options are as follows:
	■ True—removes the prefix. True is the default value.
	■ False–keeps the prefix
	Example: QM_TeamA becomes TeamA.

Telephony Groups

A telephony group consists of at least one signaling source, one signaling group, one signaling server, one recording cluster, and devices.

Quality Management allows you to add backups for the signaling source, signaling group, signaling server, recording cluster, and devices. Adding any one of these backups is optional. However, Cisco recommends using backups for resiliency purposes.

Telephony Group Signaling Source Signaling Source Signaling Group Signaling Group QM Signaling Server QM Signaling Server QM Signaling Server QM Signaling Server (primary) (backup) (primary) (backup) **Recording Cluster** Recording Cluster **Recording Cluster Recording Cluster** Record Servers Record Servers Record Servers Record Servers (primary) (primary) (primary) (primary) Record Servers Record Servers Record Servers Record Servers (secondary) (secondary) (secondary) (secondary) Devices Devices

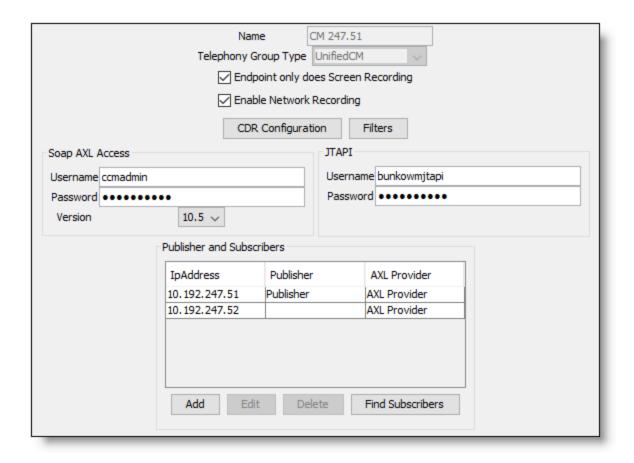
Note: Some telephony group types do not support a backup signaling source.

The Telephony Groups window allows you to add, modify, and delete the telephony groups:

Field	Description	
Add	Add a telephony group and complete the following fields:	
	Name—Enter a unique name for the telephony group.	
	Best Practices: Specify a name that identifies how the telephony group is being used (for example, location, recording cluster, recording type, and so on).	
	 Telephony Group Type—Select the telephony group type from the drop-down list. 	
Rename	To change the name of the selected telephony group, enter the name in the New Name field and click OK.	
Delete	Delete the selected telephony group.	
	Note: If you delete a telephony group, Quality Management will remove all devices associated with this telephony group from the VoIP Devices table.	
Revert Recent Changes	Reverts changes made after the last save to previously committed configuration settings.	
Show Gateway Recordings Prior to Reconciliation	When selected, this check box allows archive users in an Unified CCX environment to view root calls in the Recordings application before the calls are reconciled, including all PCI events. When cleared, calls do not appear in the Recordings application until reconciliation is complete and all PCI events are excluded. This check box is clear by default.	

Telephony Groups

The following window shows the Cisco Unified Call Manager Telephony Groups screen:



The following table describes what is supported based on telephony group type.

Telephony Group Type	Changes
Unified CM	A Unified CM telephony group can have any number of signaling groups.
All Others	All other telephony group types can support multiple telephony groups, but they are restricted to a single signaling group and Recording Cluster per telephony group.

Signaling Groups

Signaling groups are unique to the selected telephony.

A Unified CCX signaling group consists of one or more signaling services. Each CTI service in a Unified CM signaling group can have a separately administered list of Unified CM CTI Managers to connect to for JTAPI. The signaling group can have any number of Recording Clusters.

All other telephony group types are restricted to a single signaling group and Recording Cluster per telephony group. CUBE supports primary and backup signaling services, but MediaSense supports only a single signaling service.

Recording Clusters

Quality Management supports Recording Clusters. A Recording Cluster is a group of one or more Recording Servers. A Recording Server indicates which Recording Cluster it belongs to when it connects to a signaling service.

You can assign a Recording Servers to a Recording Cluster. When configuring a Recording Cluster remember the following points:

- If you have knowledge workers in a CUBE or MediaSense Recording environment who require screen recording, you need to create a Recording Cluster that connects to a CTI server and has no Recording Servers assigned to it.
- You can assign one or more Recording Servers to a Recording Cluster. A Recording Cluster requires at least one primary Recording Server.

A primary signaling service will exhaust the capacity of all primary Recording Servers before sending calls to secondary Recording Servers. A backup signaling service will exhaust the capacity of all secondary Recording Servers before sending calls to primary Recording Servers. This allows primary/backup signaling services and primary/secondary Recording Servers to be split geographically while keeping the traffic as local as possible. Significant traffic should only traverse the WAN in specific failure scenarios.

- A Recording Server can only belong to one Recording Cluster.
- You can move Recording Servers between Recording Clusters.

Important: You must run postinstall.exe on all Recording Servers before you can assign a Recording Server to a Recording Cluster. If you do not run postinstall.exe on the Recording Servers the Select Record Servers dialog box will be empty.

Telephony Group Configuration

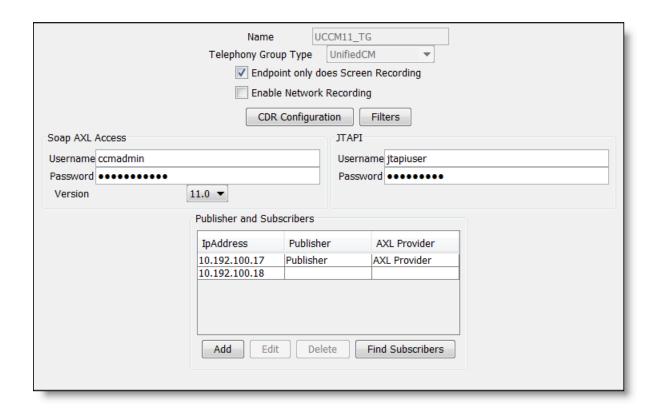
The Telephony Group Configuration dialog box appears when you add a telephony group. It allows you to assign a name to the telephony group and associate it with a telephony signaling method.



Field	Description
Name	The name of the telephony group. The name must be unique.
Telephony Group Type	The telephony signaling method for Unified CM. The possible telephony group types are as follows:
	 CUBE—no additional configuration is required after you add this telephony group.
	 Unified CM—see Unified CM Configuration for more information. The field displays Unified CM by default.
	 MediaSense—see MediaSense Configuration for more information.

Unified CM Configuration

The Unified CM Configuration dialog box appears when you add or edit a telephony group with a Cisco Unified Communications Manager (CM) telephony type. It allows you to configure a Cisco Unified CM cluster.



The Cisco Unified CM window also allows you to configure the following users:

- Simple Object Access Protocol (SOAP) Administrative XML Layer (AXL) user
- Unified CM Java Telephony Application Programming Interface (JTAPI) user

These users are used by the Computer Telephony Integration (CTI) service to log in to Unified CM.

A Unified CM cluster comprises a set of Unified CM servers that share the same database and resources and has one or more CTI Managers. The CTI Manager is a service that runs on Unified CM and handles JTAPI events for every Unified CM in the cluster. For more information on CTI Managers, see Signaling Groups.

You can specify one or more Unified CM telephony groups.

Note: A Unified CM telephony group requires at least one CTI Manager.

You enter each Unified CM in the Unified CM telephony group in postinstall.exe 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 Unified CM telephony group 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.

Field	Description
Name	(Read only) The name of the telephony group. The name must be unique.
Telephony Group Type	(Read only) Displays Unified CM by default.
Endpoint only does Screen Recording	When selected this check box indicates that the Unified CM telephony group is being used for screen recording only. The Desktop Recording service will not record audio when this box is selected. This only applies when you are using one of the following recording methods:
	Network Recording
	■ Cisco CUBE Recording via SIP Recording
	■ Cisco MediaSense Recording
Enable Network Recording	When selected this check box indicates that the Unified CM telephony group is using Network Recording and the Recording CTI service will listen for SIP messages. The Recording CTI service will not listen for SIP messages when the check box is cleared. You can install the Recording CTI service and CUBE SIP CTI service on the same machine if you clear the Enable Network
	Example: You are recording voice through Gateway Recording (using the CUBE SIP CTI service) and recording screen from a single server.
	Note: The Recording CTI service and CUBE SIP CTI service will interfere with each other while listening for SIP messages if the Enable Network Recording check box is selected.
CDR Configuration	Allows you to enable the Unified CM's Call Detail Records (CDR) Report. See CDR Configuration for more information.

Field	Description
Filters	Allows you to configure the telephony filters for this telephony group. See <i>Filters</i> for more information. Use a telephony filter to filter the devices that are imported.
SOAP AXL Access Username	The AXL (Administrative XML Layer) authentication username on the publisher for this cluster. The SOAP AXL account is used to access devices in Unified CM from the VoIP Devices window. This username is created when you configure Unified CM.
	Note: If you change a username or password, you must restart all associated signaling services.
SOAP AXL Access Password	The AXL authentication password on the publisher. This password is created when you configure Unified CM.
	Note: You must type this password; you cannot use copy/paste to enter the Unified CM password.
SOAP AXL Access Version	The Unified CM version on the publisher.
	Note: An error message will appear if the Version field is not configured.
JTAPI Username	The JTAPI username for CTI. All phone devices, used for recording are associated with this application user (end user). 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.
	Note: If you change a username or password, you must restart all associated signaling services.

Field	Description
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.
	Note: You must type this password; you cannot use copy/paste to enter the Unified CM password.
IP Address	The host name or IP address of the subscriber (if any) Unified CMs. You can enter one publisher Unified CM, and one or more subscriber Unified CMs.
	Note: When using hostnames, verify the server can resolve the name of the subscribers. If the hostname cannot be resolved, the Recording CTI service cannot log in.
Publisher	The field indicates whether or not the provided Host Name/IP address is associated with the publisher CTI Manager service. If the field is blank, the Host Name/IP address is associated with a subscriber CTI Manager service.
AXL Provider	This field indicates whether or not the provided Host Name/IP address is associated with the AXL provider.
Add	Add a new publisher or subscriber. See <i>Subscriber Configuration</i> for more information.
Delete	Remove the selected publisher or subscriber.
Find Subscribers	Use the AXL user to locate subscribers associated with the publisher entered. This is a good way to validate the AXL user credentials and to populate the list of subscribers, if any are found.

CDR Information Formats for the QM3002 Notification Trigger

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

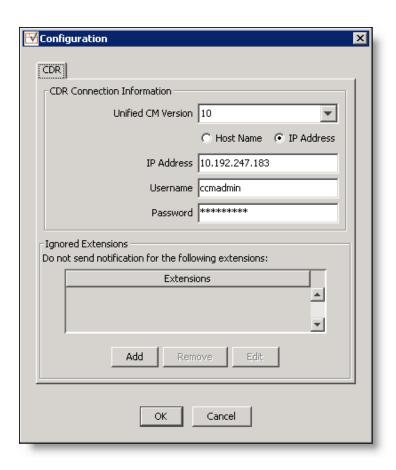
In these reports, call durations are expressed in milliseconds.

If the agent is listed as "Unknown" it means the agent has not yet successfully logged in to a PC that has the Desktop Recording service installed and running. The agent is probably not configured

correctly. Notifications for unknown agents are filtered out if the "Notify on users configured in QM" check box is enabled.

CDR Configuration

CDR Configuration allows you to enable Unified CM's Call Detail Records (CDR) Report.



Field	Description
Unified CM Version	Select the version of the Cisco Unified CM you are using.
Host Name/IP Address	Choose host name or IP address, and then enter the information for the Unified CM.
	Best Practices: Use a hostname in all instances where you are required to specify a hostname or IP address, if possible.

Field	Description
Username	The name of the user with rights to access the CAR reports.
	Note: If you change a username or password, you must restart all associated signaling services.
Password	The password of the user with rights to access the CAR reports.
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

Filters

Field	Description
Telephony Filters	Lists the names of the available telephony filters.
Add	Add a new telephony filter.
Remove	Delete a selected telephony filter.
Edit	Modify a selected telephony filter.
Name	The name of the telephony filter.
Extension Range	The range of device extensions that you want to include in the sync.
	An extension range comparison is done numerically. Pluses are limited from the numbers and compared mathematically. In this case, a range of 1 to 1000, would find the extension 500 in range.

Field	Description
Device Name Range	The range of device names that you want to include in the sync. Device names are compared alphabetically and/or lexicographically. So a range of 1 to 1000 would not find 500, instead you would have to specify the range as 0001 to 1000. This is because device names can be any string and are not limited to mostly being numbers as extension are.

Summary Only

Status Report

Start Time: 01/11/2008 15:25:53 End Time: 01/11/2008 16:25:53 Extensions with Missed Calls:

Ext Agent Found Missed % Missed 1545 JonesM 0 8 100% 2201 SmithB 0 15 100%

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:

Ext Agent Found Missed % Missed 1545 JonesM 0 8 100% 2201 SmithB 0 16 100%

Missed Calls (all times in GMT):

CallID Agent Ext ANI DNIS StartTime Duration
16778554 JonesM 1545 2671 1545 01/11/2008 03:29:3613000
16778560 JonesM 1545 2671 1545 01/11/2008 03:29:5214000
16778561 JonesM 1545 2671 1545 01/11/2008 03:30:097000
16778594 JonesM 1545 2671 1545 01/11/2008 03:36:0112000
16778596 JonesM 1545 2671 1545 01/11/2008 03:36:1811000

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:

Ext Agent Found Missed % Missed 1545 JonesM 0 8 100% 2201 SmithB 0 16 100%

Missed Calls (all times in GMT):

Call ID = 16778554 Agent = JonesM

```
= 1545
Ext
ANI
      = 2671
DNIS
      = 1545
Start = 01/11/2008 03:29:36
       = 01/11/2008 03:29:49
End
Duration= 13 sec
Call ID = 16778560
Agent = JonesM
Ext
       = 1545
ANI
       = 2671
DNIS
      = 1545
Start = 01/11/2008 03:29:52
      = 01/11/2008 03:30:06
Duration= 14 sec
```

Managing Ignored Extensions

Select a Unified CM telephony group from the list of telephony groups in the Telephony Groups window, click CDR Configuration, and choose one of the following options:

- To add an ignored extension, click Add in the Ignored Extensions section, enter the extension in the field, and click OK.
- To edit an ignored extension, select the extension from the Ignored Extensions list, click Edit, make the necessary changes in the Edit Extension dialog box, and click OK
- To remove an ignored extension, select an extension from the Ignored Extensions list and click Remove.

Configuring the QM3002 Notification Trigger

This task describes how to configure the QM3002 notification trigger.

 Click CDR Configuration in the Unified CM Configuration window for a Unified CM telephony group type.

The Configuration dialog box appears.

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

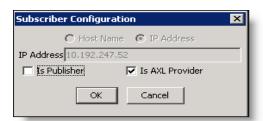
Enter the name and password of the user with rights to access the CAR reports.

5. Add the extensions that you do not want to receive notifications. See Managing Ignored Extensions for more information.

- 6. Configure the properties for the notification.
- 7. Click OK.

Subscriber Configuration

Use the Subscriber Configuration dialog box to add a Unified CM server to the Cisco Unified CM cluster. Alternatively, you can use the Find Subscribers button in the Unified CM Configuration dialog box to find the list of subscribers.



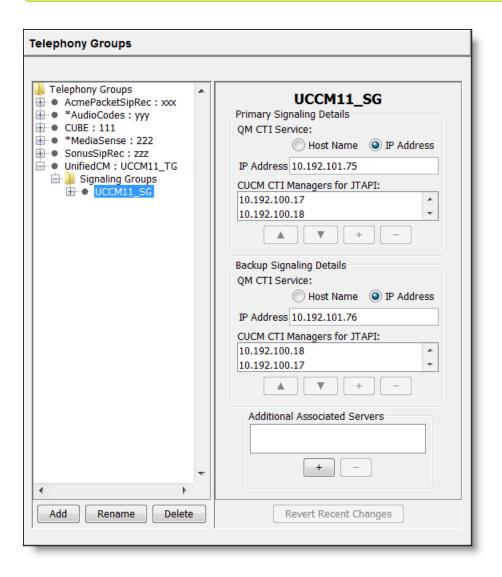
Field	Description
Host Name/IP Address	The host name or IP address of the publisher or subscriber (if any) Unified CMs. You can enter up to 8 subscriber Unified CMs.
	Note: When using hostnames, verify the server can resolve the name of the publisher or subscribers. If the hostname cannot be resolved, the Recording CTI service cannot log in.
	Best Practices: Use a hostname in all instances where you are required to specify a hostname or IP address, if possible.
Is Publisher	Select this check box if the provided Host Name/IP address is associated with the publisher CTI Manager. Only one publisher CTI Manager is allowed. This check box is disabled when a publisher CTI Manager is configured.
	Note: A publisher CTI Manager must be configured before you can add subscriber CTI Managers.

Field	Description
Is AXL Provider	Select this check box if the provided Host Name/IP address is associated with the AXL provider.

Unified CM Signaling Group

For the Unified CM telephony group, you can specify a primary and backup CTI Manager through Quality Management. Any Unified CM that has the CTI Manager running on the subscriber can be your primary or backup 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 the Unified CM performance.

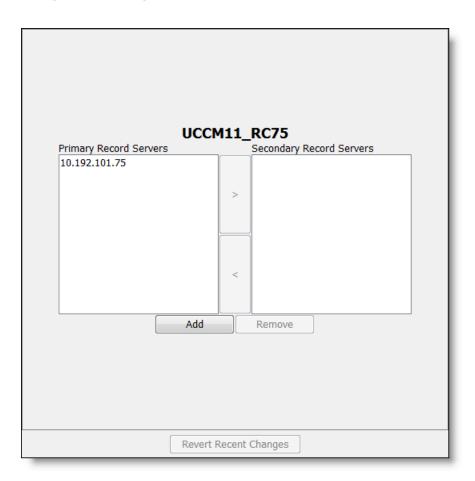


Field	Description
Primary Signaling Details	
Host Name/IP Address	The hostname or IP address of the primary signaling service. A primary hostname or IP address is required.
	This signaling service can belong to more than one signaling group.
	Best Practices: Use a hostname in all instances where you are required to specify a hostname or IP address, if possible.
CUCM CTI Managers for JTAPI	The IP address of one or more primary CTI Managers. The CTI Manager is a service that runs on Unified CM and handles JTAPI events for every Unified CM in the cluster.
Backup Signaling Details	
Host Name/IP Address	The hostname or IP address of the backup signaling service. A backup hostname or IP address is optional.
	This signaling service can belong to more than one signaling group.
	Note: The signaling service remains on the backup server until you manually initiate fail back to the primary server.
	Best Practices: Use a hostname in all instances where you are required to specify a hostname or IP address, if possible.
CUCM CTI Managers for JTAPI	The IP address of one or more backup CTI Managers. The CTI Manager is a service that runs on Unified CM and handles JTAPI events for every Unified CM in the cluster.
Additional Associated Servers	IP addresses for the remaining subscribers that are not associated with the primary and backup CUCM CTI Manager for JTAPI.
Up Arrow or Down Arrow	Use the Up or Down arrow buttons to move the CUCM CTI Managers to the desired location.

Field	Description
Add	Allows you to add a CUCM CTI Manager.
Delete	Allows you to delete a selected CUCM CTI Manager.

Unified CM Recording Cluster

Configure a recording cluster for Unified CM.

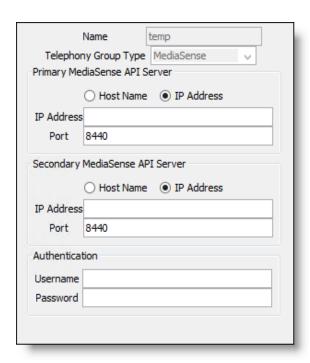


Field	Description
Primary Record Servers	The primary Recording server assigned to this recording cluster.
Secondary Record Servers	The secondary Recording server assigned to this recording cluster.
Left Arrow or Right Arrow	Use the left or right arrow buttons to move the selected Recording Server to the desired location.

Field	Description
Add	Allows you to add one or more Recording Server as primary or secondary Recording servers.
Remove	Allows you to delete a selected Recording Server.

MediaSense Configuration

The MediaSense Configuration dialog box appears when you edit a telephony group with a MediaSense telephony type. It allows you to configure the Cisco MediaSense cluster associated with the telephony group. Quality Management uses this information to download call recordings from Cisco MediaSense.



Field	Description
Name	The name of the telephony group.
Telephony Group Type	The telephony signaling method for Cisco MediaSense. The field displays MediaSense by default.

Field	Description
Primary MediaSense API Server IP Address or Hostname	The hostname or IP address of the primary Cisco MediaSense API server.
	Best Practices: Use a hostname for the primary and secondary MediaSense API server, if possible.
Secondary MediaSense API Server IP Address or Hostname	The hostname or IP address of the secondary Cisco MediaSense API server.
. recuration	Best Practices: Use a hostname in all instances where you are required to specify a hostname or IP address, if possible.
MediaSense Subscription Service IP Address or Hostname	The hostname or IP address for the MediaSense Subscription service.
Authentication Username	The username for the Cisco MediaSense API server.
	Note: If you change a username or password, you must restart all associated signaling services.
Authentication Password	The password for the Cisco MediaSense API server.

MediaSense Signaling Group

There is no configuration required for the MediaSense signaling group.

MediaSense Recording Cluster

There is no configuration required for a MediaSense recording cluster.

Managing Telephony Groups

To add a telephony group:

- 1. From the Telephony Groups window, select the Telephony Groups node, click Add, complete the fields, and then click OK to create a telephony group.
- 2. If there are fields associated with the new telephony group, complete the fields.

Note: You cannot continue to the next step until you complete the fields.

- 3. Expand the new telephony group node, click Signaling Groups, click Add, complete the field, and then click OK to create a signaling group.
- 4. Complete the fields for the signaling group.

Note: You cannot continue to the next step until you complete the fields.

- 5. Expand the new signaling group node, click Recording Clusters, click Add, complete the field, and then click OK to create the new recording cluster.
- 6. Complete the fields for the Recording Cluster and then click Save.

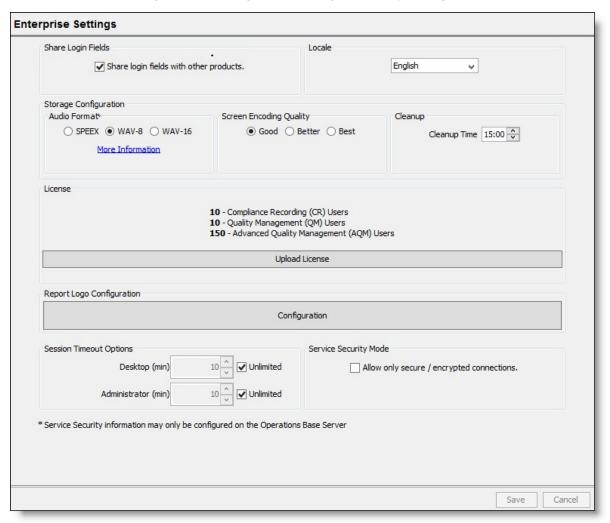
Configuration Settings Used By Services

If you change the settings for a telephony group, the following table shows when your changes take effect.

Telephony Group Type	Service	Configuration settings applied when
CUBE	CUBE SIP CTI Service	Restart the service.
MediaSense	Monitoring and Recording Medi- aSense Sub- scription service	Restart the service.
Unified CM	Recording CTI Service	Restart the service.
	Quality Management Administrator (VoIP Devices)	Reload the VoIP Device window.
	Desktop Recording service	Restart the service.
	Network Record- ing service	Restart the service.
	3	Note: If you add a backup Recording CTI Service from the postinstall.exe while in Update Mode, you must restart the Network Recording service.

Enterprise Settings

Use the Enterprise Settings window configure the settings for Quality Management.



The Enterprise Settings window allows you to:

- Share login fields with other products. See the following topics for more information:
 - Sharing Unified Workforce Optimization with Multiple Products
 - Share Login Fields
- Configure the locale for your system if your version of Quality Management supports
 other languages in addition to English. See Configuring Quality Management for more
 information.
- Choose the default audio format for your recordings.

Select the quality of your screen recordings:

Quality Level	Encoding Bit Rate	Screen Speed	Screen CPUs
Good	200	1 (real-time)	0 (1 code)
Better	400	2 (better)	1 ((cores/2)-1)
Best	600	2 (better)	2 (cores-1)

The higher the quality level selected, the more system resources are used.

- Specify when the DB Cleaner service runs.
- View license information and update software licenses, if you are not using an ACD, by importing a new software license file. See Configuring Quality Management for more information.
- Configure the report logo that appears in reports generated in the Reporting application.
 See Report Logo Configuration for more information.

Note: The Report Logo Configuration button is only enabled from postinstall.exe or Quality Management Administrator on the Web Base server.

- Configure session timeouts for Recording and Quality Management and Quality Management Administrator. See Session Timeout Options for more information.
- Configure the security mode to allow only secure and encrypted connections. See Service Security Mode for more information.

Sharing Unified Workforce Optimization with Multiple Products

Unified Workforce Optimization allows you to access several different products from a single login page. You can choose to access all products with a single password or separate passwords for each product when you run the postinstall.exe.

Best Practice: If you are using multiple Unified Workforce Optimization products, you should configure your Jetty web server to use 1024 MB of RAM for each product.

Share Login Fields

You can choose to allow access to one or more of the following products from Unified Workforce Optimization:

- Quality Management
- WFM

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 each product, users are prompted for a single set of common login credentials.

Best Practices: Select the Shared Login Fields check box.

If a user is not configured for multiple Cisco products or the user wants to log into both of the Cisco 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 Cisco product.

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

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

Locale

Use the Locale section to enable the default language in the Unified Workforce Optimization interface. Users can change the default language when they log in to Unified Workforce Optimization.

Note: The Locale section only appears when multiple locales are available.

To change the default locale for the Unified Workforce Optimization interface:

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

Storage Configuration

Use Storage Configuration to manage the storage of recordings, including: the default audio format and the database cleanup time.

Choose the default audio format. Your options are as follows:

- SPEEX—provides the smallest file size. Choose this option if your greatest concern is to maximize storage space. When upgrading from 10.0 or lower, the default is SPEEX.
- WAV-8—files are approximately four times larger than SPEEX files. Choose this option if you want to compromise between greater audio fidelity and storage space.
- WAV-16—files are approximately twelve times larger than SPEEX files. Choose this option if you want the maximum audio fidelity and you are not concerned with storage space.

The Database Cleanup Time field specifies when the DB Cleaner utility runs. This utility deletes expired recordings from the database. The value provided must be between 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.

License

This section displays the available licenses and allows you to import licenses. The license type determines what Quality Management records. When a user logs into Unified Workforce Optimization, that user has access to all Quality Management applications allowed by the license and roles assigned to that user. The license determines what is recorded, not what is viewed, in Unified Workforce Optimization.

Example: If Agents X and Y use AQM or AQMS+ license, they can record their screens. For more information on Licensing, see "Mixed Mode Licensing" in the *Design Guide*.

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 postinstall.exe, 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 CR license to the AQM license), 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).

Note: Beginning with QM 11.0, only the AQM and AQMS+ licenses are available. QM and QMA licenses are not available.

Contact your sales representative to obtain a new license file.

To import a Cisco CR license file:

1. Click the Upload License button.

The Upload License File dialog box appears.

- 2. Navigate to the folder where your updated Cisco CR license file is stored, and select the file.
 - If you are fixing a corrupted license, upload your existing license file.
- 3. Click Upload File.

The Licensing Server uploads the Cisco CR license file.

Report Logo Configuration

Report Logo Configuration allows you to customize the logo that appears in reports generated by the Reporting application in Unified Workforce Optimization.

Custom logos must conform to the following specifications:

- The logo must be 60 × 60 pixels
- It must be in PNG format
- The file must be named "logo.png"

To replace the default logo with your own custom logo:

- 1. Navigate to the C:\Program Files\Cisco\WFO_QM\Jetty\report_solutions\reports folder, copy the original logo.png and save it to a backup folder.
- 2. Copy and replace the custom logo.png to the following folders:
 - C:\Program Files\Cisco\WFO QM\Jetty\report solutions\reports
 - C:\Program Files\Common Files\QM\config

Note: By copying your custom logo file into the Common Files folder, it will be available even if you upgrade to a new version. PostInstall automatically copies it from the Common Files folder to the correct folder within the Quality Management file structure every time it is run.

- 3. Start postinstall.exe or Quality Management Administrator.
- 4. On the Enterprise Settings window, click Report Logo Configuration.
- 5. Click Select New Logo, browse to the location of your logo, and then click Select Image.
- 6. Click Save.
- 7. Restart the Jetty service.

To restore the default logo:

- 1. On the Enterprise Settings window, click Report Logo Configuration.
- 2. Click Use Default Logo and then click Save.
- 3. Restart the Jetty service.

Session Timeout Options

You can configure Quality Management Administrator or Recording and Quality Management in Unified Workforce Optimization for one of the following options:

- Close all open popup windows and log off the user after a specified number of minutes of inactivity (session timeout)
- 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 Recording and Quality Management applications, each 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 customer conversation, the session remains in an active state. Unified Workforce Optimization does not time out when you are playing a customer conversation.

Service Security Mode

If you configured the servers to run with Secure Socket Layer (SSL) and plan to use Hypertext Transfer Protocol Secure (HTTPS), some traffic will continue through non-secure transport. Specifically, voice and screen uploads will continue over non-secure transport as the data is already encrypted.

Select the Allow secure / encrypted connections check box to enable secure (HTTPS) connections for traffic other than voice and screen upload. When this check box is selected, you must use HTTPS when connecting to Unified Workforce Optimization. Once enabled, you will not be allowed to play back recordings or live monitor a user if you are using HTTP to connect to Unified Workforce Optimization.

When the check box is selected, the useSSL flag for web, voice, and screen servers will be set to true and their httpPort setting will use the statically defined value of 7001.

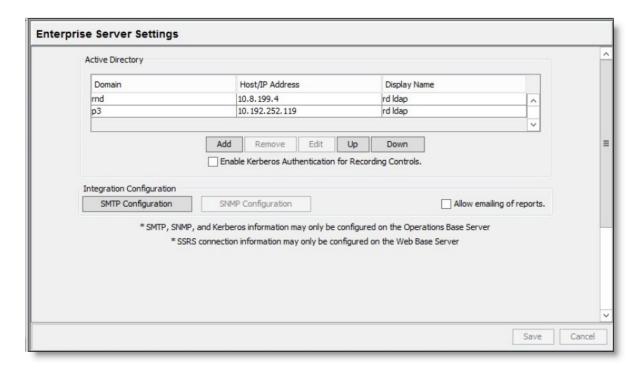
Note: You will need to manually block port 80 if required. See the "Quality Management Port Usage" in the *Installation Guide* for more information on port usage.

When the check box is cleared, the useSSL flag for web, voice, and screen servers will be set to false, and their httpPort setting will use port 80.

Pack no Enterprise Server Settings

Use the Enterprise Server Settings window to configure Active Directory. You can also configure the method (SMTP or SNMP) used to notify administrator or supervisors of system problems, and enable the ability to email reports.

Note: The Active Directory section appears in the Enterprise Settings window only if your system is configured to use Active Directory.



The Enterprise Server Settings window allows you to:

- Configure Microsoft Active Directory domains (in an Active Directory system only). See
 Active Directory for more information.
- Enable Kerberos Authentication for Recording Controls. When enabled, a user must enter their AD credentials to access Recording controls. This check box is enabled only when Active Directory is enabled.

Note: You will be prompted to restart the Jetty service. Changes to Kerberos Authentication goes into effect after the Jetty service is restarted.

 Configure the method (SMTP or SNMP) used to notify administrators or supervisors of a system problem and decide if emailing reports will be allowed.

Configuration Settings Used By Services

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

Service	Configuration settings applied when
Quality Management Administrator (AD Authentication and Administrator session timeout change)	Log into Quality Management Administrator.
Unified Workforce Optimization (AD Authentication and localization changes)	Start the Data API service.
Kerberos Authentication for Recording Controls	Restart the Jetty service

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.

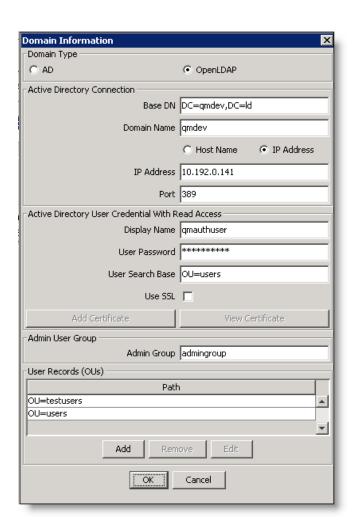
- There must be at least one domain configured
- Each domain must have at least one user path configured

To add or delete an Active Directory domain from the Enterprise Settings window:

- 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.

Domain Information

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



Field	Description
Domain Type	Select the domain type:
	Active Directory
	■ OpenLDAP
Base DN	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.

Field	Description	
Domain Name	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.	
Host Name/IP Address	The host name or IP address of the Active Directory server.	
	Best Practices: Use a hostname in all instances where you are required to specify a hostname or IP address, if possible.	
Port	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).	
	Note: 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.	
Display Name	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.	
User Password	The user's password.	
User Search Base	The node in the Active Directory folder under which the user resides. Maximum number of characters allowed = 1000.	
Use SSL	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.	

Field	Description
Admin Group	The name of the security group in Active Directory. Only users assigned to this security group can be assigned the system administrator role.
	Note: All users in the Admin Group must belong to the same domain specified in the Base DN field.
	Note: AD Account users associated with the Security Group setting are not given an administrator role by default.
	To assign the system administrator role to a user in this security group, see <i>Administrator Configuration</i> .
	Best practice: Create a security group with a unique name in Active Directory and add the users who you want to have system administrator privileges in Quality Management Administrator and Unified Workforce Optimization. Specify the name of that security group in this field. This prevents any conflict with default security groups in Active Directory. Note that adding users to the Domain Admins group is not appropriate in this instance because the users in the Domain Admins group also have permission to make changes in Active Directory.

Field	Description
Add Certificate	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:// <active address="" directory="" hostname="" ip="" or="" server="">/<certsrv></certsrv></active>
	You can use certificate enrollment tools other than certsrv in this command.
	Note: Quality Management can only import Distinguished Encoding Rules (DER) encoded binary X.509 or Base-64 encoded X.509 formatted certificates. These files typically have one of the following extensions: der, pem, or cer.
	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.
	Note: After you import the certificate and save your changes, log out of Quality Management Administrator and log back in to verify the certificate works.
View Certificate	View the certificate associated with Active Directory.

Field	Description
User Records (OUs)	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
Add	Add a user record.
Remove	Remove a user record.
Edit	Modify a user record.
ОК	Save your changes.
Cancel	Exit without saving changes.

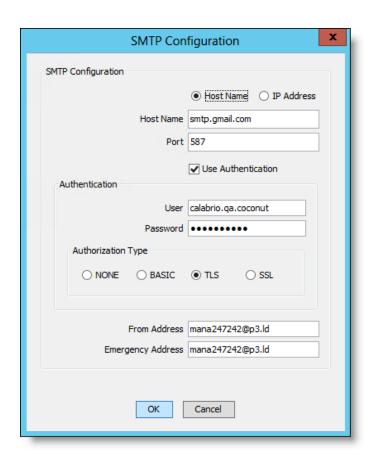
SMTP Configuration

SMTP Configuration allows you to configure the SMTP email connection.

Note: This feature is only enabled on the Web Base server.

Notifications can be sent to 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 Web Base server.



Field	Description	
Host Name/IP Address	Choose Host Name or IP Address, and then enter the hostname or IP address of the SMTP server.	
	Best Practices: Use a hostname in all instances where you are required to specify a hostname or IP address, if possible.	
Port	The port used by the MANA service to communicate with the SMTP server.	
Use Authentication	Select this check box if authentication is needed to access the SMTP server.	
User	The username required to access the SMTP server.	
Password	The password required to access the SMTP server.	

Field	Description
Authorization Type	The type of authorization required. Your options are as follows:
	■ NONE
	■ BASIC
	■ TLS
	■ SSL
From Address	The email address from which all notifications will come.
Emergency Address	The email address where notification will be 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 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.

To configure SMTP settings for email:

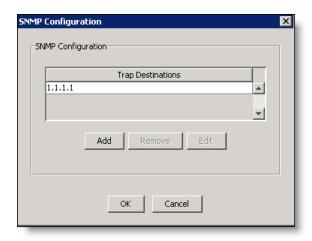
• Click SMTP Configuration, complete the fields, and then click OK.

SNMP Configuration

SNMP Configuration allows you to configure the Simple Network Management Protocol (SNMP) connection.

Note: This feature is only enabled on the Web Base server.

Notifications can be sent by SNMP. SNMP is an application-layer protocol that provides a message format for communication between Quality Management and a trap destination.



Field	Description
Trap Destinations	The available trap destinations.
Add	Add a trap destination.
Remove	Remove a trap destination.
Edit	Edit a trap destination.

To configure SNMP settings for notification:

- Click SNMP Configuration, choose one of the following options, and then click OK.
 - · 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.

Restart the Windows SNMP service to enable your changes.

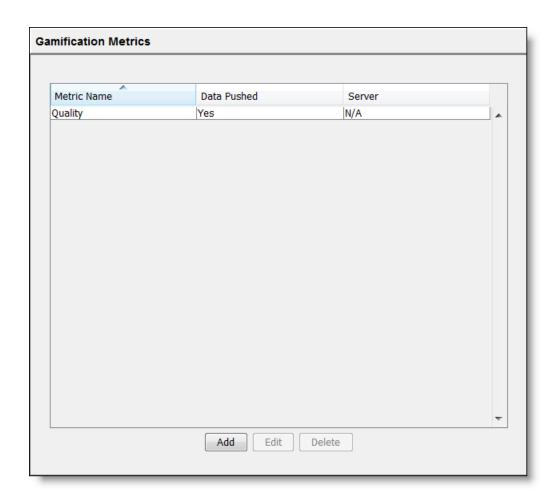
Note: You must restart the SNMP service any time you make a change in trap destinations.

Allow Emailing of Reports

When selected, the Allow Emailing of Reports check box allows you to email a report to a specific person or distribution list. For more information on creating a distribution list, see *Notification Distribution*.

Gamification Metrics

Use the Gamification Metrics window to configure the connection settings to allow the retrieval or posting of gamification metrics. Additional configuration options are provided in Recording and Quality Management when you log in to Unified Workforce Optimization.

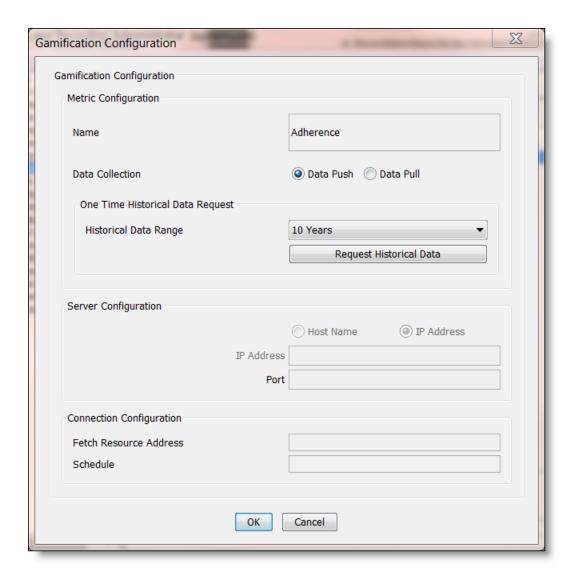


The default metric for this window is Quality; you can add one or more additional metrics, either Quality or Adherence.

Field or Button	Description		
Metric Name	The name of the metric. The available metrics are as follows:		
	 Adherence—the agents' adherence data. This metric is pulled from WFM and requires additional configuration. Once configured, Quality Management will retrieve the nightly, as well as historical performance data from WFM. 		
	 Quality—the agents' performance data from evaluations. This metric is pushed from Recording and Quality Management and required no additional configuration. 		
Data Pushed	Indicates how the data is collected. The options are as follows:		
	Yes—the data is pushed (or posted)		
	■ No—the data is retrieved (or pulled)		
Server	The hostname or IP address of the server.		
Add	Add a new metric.		
Edit	Modify a selected metric.		
Delete	Remove a selected metric.		
Туре	Select the metric type (Adherence). When you click Add, the Add Gamification Metric dialog box displays this field.		

Gamification Configuration

Use the Gamification Configuration dialog box to configure the connections settings for a selected metric.



Field or Button	Description			
Name	The name of the metric. The available metrics are as follows:			
	 Adherence—the agents' adherence data. This metric is pulled from WFM and requires additional configuration. Once configured, Quality Management will retrieve the nightly, as well as historical performance data from WFM. 			
	 Quality—the agents' performance data from evaluations. This metric is pushed from Recording and Quality Management and required no additional configuration. 			
Data Collection	Choose one of the following options:			
	 Data Push–When you select this option, the data is pushed (or posted) to the specified server. 			
	 Data Pull—When you select this option, the data is retrieved or pulled from the specified server. 			
Historical Data Range	Select an historical date range from the drop-down list.			
	This field is enabled when you select Data Push.			
Request Historical Data	When clicked, Quality Management pushes historical data to the specified server.			
	This button is enabled when you select Data Push.			
Server Configuration Host- name or IP Address	The hostname or IP address of the server container for the gamification metric. This field is enabled when you clear the Data Push check box.			
	For the adherence metric, specify the hostname or IP address of the WFM container.			
Server Configuration Port	The port number for the server for the gamification metric. This field is enabled when you clear the Data Push check box.			
Connection Configuration Fetch Resource Address	The location of the API where the performance data will be retrieved from. When you choose the Adherence metric, this field is prepopulated with the path to the performance data and cannot be changed.			

Field or Button	Description
Connection Configuration Schedule	The schedule for retrieving the performance data. By default the value is * * * * *. You can adjust the retrieval schedule to suit your needs.
	This field accepts a free form text value of the cron formatted (http://www.nncron.ru/help/EN/working/cron-format.htm) schedule.

Managing Gamification Metrics

To update connection details for a metric:

 Click Update Connection Details, complete the fields in the Gamification Configuration dialog box, and then click OK.

Administrator Configuration

Note: When you upgrade to from 10.5 or earlier, the only administrator that exists will be the default administrator. The default administrator is a system administrator. Users who were assigned the administrator role in 10.5 or earlier will require additional configuration. After upgrading to , you need to assign your administrator users based on the new hierarchical administrative roles.

The Administrator Configuration window allows you to assign the system administrator role to users who belong to the Admin Group. See the *Domain Information* for a description of the Admin Group and Administrator for a description of the administrator roles.

Important: Once you assign the system administrator role to a user in a non-Active Directory environment, the default administrator user becomes obsolete and you can no longer log in as a default administrator.

Note: You can only promote users to system administrator from postinstall.exe on the Web Base server.

If you are using Active Directory, the Administrator Configuration window will only display users in the security group that have a complete configuration (including a Last Name).

If you are not using Active Directory, the Administrator Configuration window will display users configured in the User Administration window.

Last Name	First Name	User ID	Is System Admin	Windows Login	Domain	
Wolff	Greg	0.183	True	wolffg	P3	^
Kelly	Josh	0.184		Josh.Kelly	P3	
lames	Gale	0.185		gale.james	P3	
Decker	jonathan	0.186		Jonathan.Decker	P3	
Bunkowske	Mark	0.187		bunkowm	P3	
.ong	Ed	0.188		longe	P3	
sheldon	Amos	0.189		sheldoa	P3	
(lein	Alan	0.190		alan.klein	P3	
Halbach	Ben	0.191		ben.halbach	P3	
Jser	System	0.192	True	systemuser	P3	
ıser	end4	0.193		end4	P3	
James	Gale	0.194	True	jamesg	P3	
Kadrie	Brett	0.195	True	brett.kadrie	P3	
gong3	zhuo3	0.196		22073	P3	
Dahlman	June	0.197		June.Dahlman	P3	
nanson	jon	0.198		jon.hanson	P3	
.aehn	Taylor	0.199		taylor.laehn	P3	
Ihok	Oishong	0.200		oishong.chok	P3	
Helker	Karen	0.201		karen.helker	P3	
(u	Eric	0.202		eric.ku	P3	
Jser	business	0.203		businessuser	P3	
Gong	Zhuo	0.204	True	gongz	P3	
.oeck	Ryan	0.205		loeckr	P3	
.anctot	Dan	0.206		dan.lanctot	P3	
WFM	Supervisor3	0.207		Sup3	P3	\ \

Field or Button	Description
Last Name	The user's last name.
First Name	The user's first name.
User ID	
Is System Admin	When True appears in the field, the user is assigned to the system administrator role. A blank field indicates the user is not a system administrator.
	To assign the business or telephony administrator role to a user, see <i>User Administration</i> .
Windows Username	The user's Windows user name.

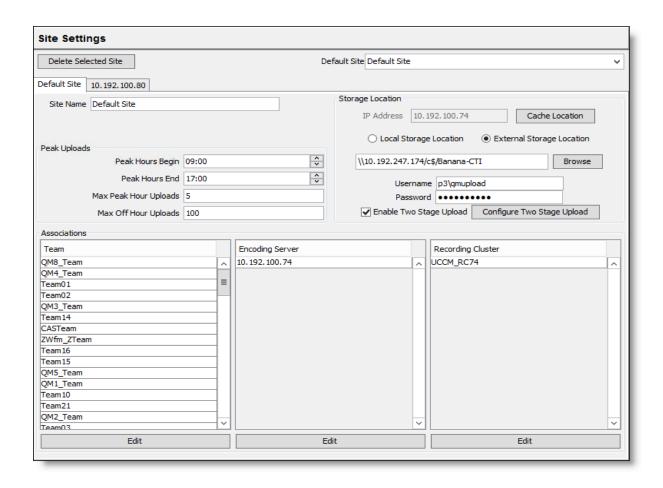
Field or Button	Description
Domain	The user's domain name.
Add System Admin Role	To assign the system administrator role, select one or more users who are not system administrators and click the Add System Admin Role button.
Remove System Admin Role	To remove the system administrator role, select one or more users who are system administrators and click the Remove System Admin Role button.

Managing Administrators

- To assign the system administrator role, select one or more users who are not system administrators and click the Add System Admin Role button.
- To remove the system administrator role, select one or more users who are system administrators and click the Remove System Admin Role button.

Site Settings

Use the Site Settings window to configure one or more sites and associate teams and Recording Clusters with each site.



When you install the Site Upload Server on a server, this is the first screen to appear in postinstall.exe.

Note: The Site Settings window only appears when you install the Site Upload Server.

You can use the Site Settings window to do the following:

- View the current site configuration
- Modify or remove a site
- Add or remove teams from a site
- Add or remove Encoding Servers from a site
- Add or remove Recording Clusters from a site
- Change the default site
- Specify when, where, and how many uploads can occur

- Schedule uploading of peak and off-peak recordings from the agent desktops to the Site
 Upload servers
- Configure storage locations
- Enable and configure two stage upload

Field	Description	
Delete Selected Site	Remove an existing site.	
Default Site	The default site is assigned to new teams that have not been associated with a site. In rare circumstances, it also becomes the default site when a service cannot find a site for a recording.	
Site Name	The name of the site.	
Peak Hours Begin	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.	
Peak Hours End	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.	
Max Peak Hour Uploads	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.	
Max Off Hour Uploads	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.	

Field	Description			
Storage Location	You can change the storage location to any local or external folder. You do not have to store recordings on the machine that hosts the Site Upload Server.			
	If you change the storage location, you must run the Set Recording Home Directory tool to restart the services.			
	Note: If you are using remote storage, the Media API that is part of the Site Upload Server must run as a user who has access to the location you choose for recordings.			
IP Address	The IP address of the machine that hosts the Site Upload Server and the voice recordings, and the path where voice recordings are stored.			
Cache Location	(Cloud-based storage only) The location where unencrypted voice and screen recordings are stored. These files are used for playback. The specified directory must be accessible by the local system users and each of the Encoding servers. External location credentials must be shared with the permanent storage location.			
	A cache location is required if you are using cloud-based storage. Unencrypted files must be stored separate from the permanent storage location for performance reasons. Note that the Jetty service must be restarted when you change the cache location for the changes to go into effect.			
Local Site Cache Location	Choose this option to store the unencrypted voice and screen recording in a local site cache location.			
	Best Practices: If there is only one configured Media Encoder and it is local, choose the Local Site Cache Location for best performance.			

Field	Description			
External Site Cache Location	Choose this option to store the unencrypted voice and screen recording in an external site cache location.			
	Best Practices If there are one or more Media Encoders and they are not local, choose the External Site Cache Location. You can specify any network location accessible to the Jetty services and all Media Encoder services configured for this site.			
Site Cache Location User- name	Enter the username required to access the site cache location. This user must meet these requirements:			
	 The site cache location must know the user (the user is a trusted domain user). 			
	If the user is a domain user, the domain specified must be trusted by the site cache location. This means the site cache location that you are configuring has to be on a domain that trusts or is trusted by the domain you are entering.			
	■ The user must be able to log on as a service.			
	 The user must have read and write access to both the site cache drive location entered AND the location where Quality Management is installed on the local server. 			
	Note: The Jetty and Media Encoder services must be running as this user.			
Site Cache Location Password	Enter the password required to access the site cache location.			
Local Storage Location	Choose this option to store the voice and screen recordings on the Quality Management server.			

Field	Description			
External Storage Location	Choose this option to store the voice and screen recordings on an external server.			
	Note: The default path is C:\Program Files\Common Files\QM\Recordings. If you need to change the path, do not specify the root directory (for example, D:\ or E:\). Always include at least one folder in the path (for example, D:\Cisco).			
Storage Location Path	The path where voice and screen recordings are stored. Click Browse and navigate to the storage folder.			
	Note: The default path is C:\Program Files\Common Files\QM\Recordings. If you need to change the path, do not specify the root directory (for example, D:\ or E:\). Always include at least one folder in the path (for example, D:\Cisco).			
Browse	Locate a folder.			

Field	Description		
Storage Location Username	If you selected an external storage location, enter the username required to access that location. If the user is a domain user, enter the name with the format <domain>\<username>.</username></domain>		
	For external screen storage and playback to work, you must provide a domain user that has read and write access to the local server and the external storage system.		
	This user must meet these requirements:		
	 The local server must know the user (the user is a trusted domain user). 		
	If the user is a domain user, the domain specified must be trusted by the local server. This means the Recording Server that you are configuring has to be on a domain that trusts or is trusted by the domain you are entering.		
	■ The user must be able to log on as a service.		
	 The user must have read and write access to both the external drive location entered AND the location where Quality Management is installed on the local server. 		
Storage Location Password	If you selected an external storage location, enter the password required to access that location.		

Field	Description		
Enable Two Stage Upload	When selected, two stage upload is enabled. Two stage upload immediately uploads screen and audio recordings to a temporary storage location. You can then configure a workflow to upload files from the temporary storage location to the permanent storage location at the End of Day.		
	Two stage upload functions in one of two manners:		
	 If you are using Desktop Recording (or Gateway Recording), the Desktop Recording service will round robin through all Recording Servers associated with the site. This will happen regardless of the location of the Recording Servers. If you are using Desktop Recording and need to limit your uploads to a local Recording Server, you will need to configure a site for that location. 		
	 If you are using Server Recording, the Desktop Recording service will round robin through Recording Servers that are in the same cluster as the agents. All recordings will go to your local Recording Cluster. If no configuration information is available for your local Recording Cluster, no recordings will upload from those agents. 		
	Enable two stage upload when:		
	Your contact center has multiple sites that are separated by a WAN and you want to use the Immediate Upload fea- ture but you have limited bandwidth.		
	You are using Desktop Recording and your contact center requires the agents to shut down their desktop at the end of a shift. Shutting down the desktop interrupts the scheduled upload based on the agent's workflow. Two stage upload ensures the recordings are immediately uploaded to the temporary storage location after a call.		
	On startup, the Desktop Recording service retrieves all site information, including all two stage upload locations. When a call ends, recordings are moved to a temporary storage location and then uploaded to the permanent		

Field	Description			
	storage location. The files are moved in the following order: voice, screen, ini. If there are no two stage upload locations, two stage uploads are turned off. Recordings are uploaded using the round-robin method to the available storage locations.			
	Note: When two stage upload is enabled, it is possible that voice and screen recordings for a call might be stored in different storage locations.			
	When cleared, recordings are uploaded directly to the central storage location. When the upload occurs is determined by the workflow assigned to the agent.			
	This check box is only enabled when at least one Recording Cluster is assigned to the site.			
Configure Two Stage Upload	Click this button if you want to configure a temporary storage location. The Two Stage Upload Configuration dialog box will display the Recording Servers associated with the Recording Clusters assigned to the site. Click the Modify button associated with the selected server to configure the UNC path, username, or password to that server.			
	This button is enabled when you select Enable Two Stage Upload and at least one Recording Cluster is assigned to a site.			
Two Stage Upload Configuration Server	The IP address or hostname of the of the Recording server that hosts the temporary storage location.			
	This field appears in the Two Stage Upload Configuration dialog box.			

Field	Description		
Two Stage Upload Configuration UNC	The storage location path to the TwoStageLocation folder on the Recording server where voice and screen recordings are temporarily stored. The path must be in UNC format. The default path is as follows:		
	\\ <server>\TwoStageLocation</server>		
	where <server> is the IP address or host name of the Recording server that host the temporary storage location.</server>		
	The TwoStageLocation folder is automatically created the first time the Recording server is started. The default path is as follows on the Recording server:		
	<temporary location="" recording="" storage="">\TwoStageLocation</temporary>		
	where <temporary location="" recording="" storage=""> is the path to the temporary recording directory. See <i>Set Temporary Recording Directory</i> for more information.</temporary>		
	Important: The TwoStageLocation folder properties must be shared using Advanced Sharing and a username and password must be configured to access this folder. The user must be allowed the following permissions: Full Control, Change, and Read. Quality Management uses this path and the specified user name and passwords to access the TwoStageLocation folder.		
	This field appears in the Two Stage Upload Configuration dialog box.		
Two Stage Upload Configuration Username	Enter the username required to access the TwoStageLocation folder on the Recording server.		
	This field appears in the Two Stage Upload Configuration dialog box.		
Two Stage Upload Configuration Password	Enter the password required to access the TwoStageLocation folder on the Recording server.		
	This field appears in the Two Stage Upload Configuration dialog box.		
Modify	Click this button to modify the fields in the selected row.		
	This button appears in the Two Stage Upload Configuration dialog box.		

Field	Description		
Team	A list of assigned teams.		
Encoding Server	A list of assigned Encoding Servers.		
Recording Cluster	A list of assigned Recording Clusters.		
	Note: Assigning a Recording Cluster to a site takes precedence over a team. So a if a user is assigned to Team 1 on Site 1, but is associated with Recording Cluster A on Site 2, the recordings for that user will be uploaded to Site 2.		
Edit	Modify the assigned teams, Encoding Servers, or Recording Clusters.		

Site Considerations

If you plan to use multiple recording storage locations, you can associate each recording storage location to a site.

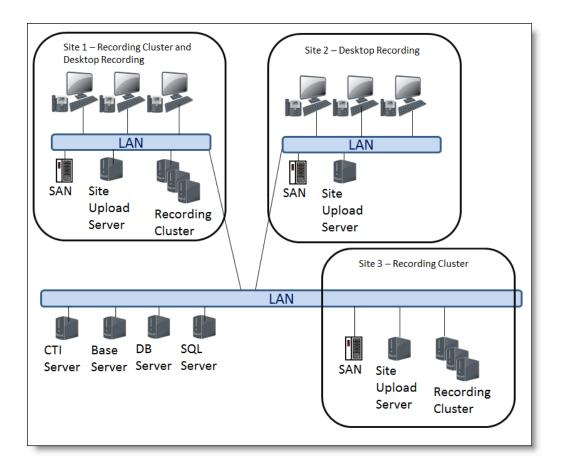
When configuring sites, consider the following:

- A site is a single Site Upload server associated with a set of teams. A site can be configured to be the system's default site. The default site is used for teams that have not been associated with a site or whenever a recording service cannot find a site for a recording (this can happen in rare circumstances).
- You can configure one or more sites for a Quality Management system and define the teams that are assigned to each site.
- When a site is taken down for maintenance or failure, the recordings created by the agents while the site was down will be uploaded when the site recovers.
- When upgrading from 9.0 or earlier, Quality Management will create a single site and assign the Site Upload server, Upload Controller service, and all defined teams to that site. Peak and off-peak settings will also be moved to the site. Once Quality Management is installed, you can add more sites.
- When an agent plays a recording from the Recordings application, the Recordings application will play back the recording from the Site Upload server that is associated with the agent's team.

■ For Desktop Recording, Quality Management records the agent's calls while the agent is logged in to the desktop. When the agent logs out, the recordings are uploaded to the Site Upload server that is associated with the agent's team. It is possible to have two different agents using the same computer at different times and have their recordings uploaded to different Site Upload servers.

The following figure shows three sites—two external sites that communicate with the rest of the system over a WAN and one site that communicate over a LAN. Each site has a Site Upload server with an Upload Controller and a Recording Cluster. Each site has one or more teams assigned to it and the users in those teams will upload to the proper site.

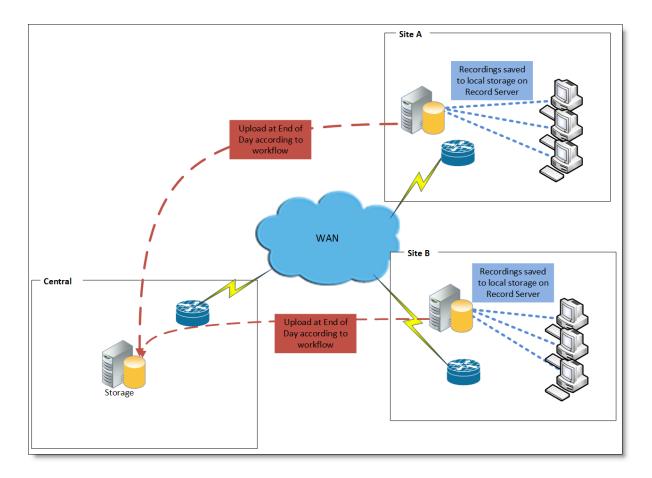
Multiple site configuration example



Site recording storage location example: The Web Base server is located in the United States (site 3) and a Site Upload server is located in Germany (site 1) and all the German teams or groups are assigned to the German site. When a German agent records a call, the recording is uploaded to the German site recording storage location in Germany. When the agent plays

back the recording, the recording is retrieved locally and avoids wide area network (WAN) traffic.

The following figure shows two sites using two stage upload feature.



Two stage upload example: Immediately after a call, Site A and Site B upload the recordings to their Recording server that hosts the temporary storage location. At the End of Day, the recordings are then uploaded to the permanent storage location.

Managing Site Settings

- To view the existing site configuration, click Site Settings.
 - The Site Settings window appears.
- To view a different site, click the tab associated with the site.

New sites appear in Site settings when you install Quality Management on the server associated with the new site and configure the new site in the Site Settings window.

■ To remove a site:

- 1. Click the tab for the site you want to remove.
- 2. Click Delete Selected Site.
- 3. Click Yes in the Confirm Delete dialog box.
- 4. Choose where you want to move recordings from the deleted site, and then click OK.
- 5. Manually remove the recording files stored at the deleted site, and then click OK.
- 6. Open the Services window on the server and stop the following services:
 - · Quality Management DB Proxy Service
 - Quality Management DB Cleaner Service
- 7. Click OK in the Proceed? dialog box to continue.
- 8. Click OK to dismiss the Save Successful dialog box.

The Manually Move Recordings dialog box appears. You need to manually move the existing recordings from the server associated with the old site to the server associated with the new site. The teams from the old site are now assigned to the new site and future recordings for those teams will now be stored on the server for the new site.

- To modify a site, select the site's tab, complete the fields, and then click Save.
- To change the default site, select a site from the Default Site drop-down list, and then click Save.
- To modify the current upload settings for a site, click the site's tab, complete the fields under Peak Uploads, and then click Save.
- To change the recording storage location:
 - a. Complete the fields under Storage Location and then click Save.
 - b. Select Tools > Set Recording Home Directory to restart the services.
- To enable two stage upload:
 - a. Select Enable Two Stage Upload.
 - b. Click Configure Two Stage Upload.

- c. Click Modify and complete the fields.
- d. Click OK.
- To modify the list of assigned teams, Encoding Servers, or Recording Clusters to a site, select the site's tab, click Edit under Team, Encoding Server, or Recording Cluster, and choose one of the following options: select one or more teams, Encoding Servers, or Recording Clusters from the Teams, Encoding Servers, or Recording Clusters list and click the > button to move the teams to the Assigned Teams or Assigned Recording Clusters list. To move all teams or Recording Clusters to the Assigned Teams or Assigned Recording Clusters list click the >> button, and then click Save.
 - Add teams, Encoding Servers, or Recording Clusters. Click Edit under the option
 that you want to modify, select one or more items from the available list and click
 the > button to move the selected items to the assigned list, or click the
 >> button to move all items to the assigned list, and then click OK.
 - Remove teams, Encoding Servers, or Recording Clusters. Click Edit under the
 option that you want to modify, select one or more items from the assigned list
 and click the < button to move the selected items to the available list, or click the
 << button to move all items to the available list, and then click OK.

Configuration Settings Used By Services

If you change the settings on the Site Settings window, the following table shows when your changes take effect.

Service	Configuration settings applied when		
Upload Controller service	The next End of Day applies the configuration settings. If you want the changes to take effect immediately, restart the Uploa Controller service.		
DB Cleaner service	The next cleanup time applies the configuration settings. If you want the changes to take effect immediately, restart the DB Cleaner service.		
Media webapp (Jetty service)	Restart the Jetty service.		
Network Recording service	If two stage upload is enabled and you move a Recording Cluster from one site to a different site, you must restart the Network Recording service for that Recording Cluster for the changes to take effect.		

External Storage and Services

If you select External Storage Location in the Site Settings window in System Configuration Setup, you must configure the Jetty service.

This step must be done after you install the Quality Management Web Base Services and before you start recording contacts.

To enable external storage and services:

- Create a username and password for the external storage user on the external storage server.
- 2. Configure the Jetty service for external storage.

To configure services for external storage:

1. Select Start > Administrative Tools > Services.

The Services window appears.

2. Right-click Monitoring and Recording Jetty service and choose Properties.

The Monitoring and Recording Jetty Service Properties window appears.

3. Click the Log On tab, choose This Account by providing the username and password for the external storage server, complete the fields, and then click Apply.

If the provided information is correct, the following message will appear:

```
The account .\<username> has been granted the Log On As A Service right.
```

where <username> is the username you provided in the This Account field.

Inclusion List

Quality Management uses the Inclusion List window to determine which calls to record and which calls to ignore. Quality Management only records calls that match the extension patterns in the Patterns to be Recorded list.



A tab appears in the Inclusion List window for each configured telephony group. You can configure extension patterns for inclusion or exclusion for each telephony group.

The Patterns to be Recorded list contains extension patterns that will be recorded. By default, the Patterns to be Recorded list displays an asterisk (*) in the Pattern column, Extension in the Type column, and Either in the Direction column. This indicates that all incoming and outgoing calls on all extensions in the telephony group will be recorded. As soon as specific extension patterns are configured in the Patterns to be Recorded list, recording is limited to those extension patterns only.

The Pattern column lists the extension pattern that will be filtered in the Patterns to be Recorded or Patterns to be Excluded from Recording lists. You can use the following wildcards to configure ranges:

- 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.

Extension patterns can be further filtered by selecting:

- The direction of the call (for recorded calls only). Your options are:
 - Inbound—filters all inbound calls that match the extension pattern
 - Outbound—filters all outbound calls that match the extension pattern
 - Either—filters all inbound and outbound calls that match the extension pattern

See Gateway Recording Considerations and Cisco MediaSense Recording Considerations for more information.

- The type of call. Your options are:
 - Any—filters all called, calling, and extensions calls that match the extension pattern
 - Called—fillers all calls received by the phone numbers that match the extension pattern
 - Calling—filters all calls made by the phone numbers that match the extension pattern
 - Extension—filters all extensions that match the extension pattern
 - Excluded—excludes all inbound or outbound calls that match the extension pattern.

To rearrange the order of extension patterns that appear in the Patterns to be Recorded list, select an extension pattern from the list and use the Up or Down arrow buttons to move the extension pattern to the desired location. Extension patterns are filtered starting at the top of the list and continues down to the bottom of the list.

The Patterns to be Excluded from Recording list displays extension patterns that will not be recorded. Extension patterns that appear in the Patterns to be Excluded from Recording list are filtered before any extension patterns that appear in the Patterns to be Recorded list. Only extension patterns found in the Patterns to be Recorded list will be recorded.

You can also import or export an inclusion/exclusion list for a single telephony group. Changes to the inclusion/exclusion list take effect the next time the CTI service polls for configuration (five minutes at

most). Importing or exporting a large inclusion/exclusion list is quick (Less than five seconds). However, it might take up 30 seconds to save a large inclusion/exclusion list to the database.

Any changes you make to the Inclusion List take window take effect at the next recording client login.

Field	Description		
Add	Add an extension pattern.		
Remove	Remove an extension pattern.		
Modify Type	Change the call type associated with an extension pattern.		
Modify Direction	Change the direction associated with an extension pattern.		
Import	Allows you to select the location and name of an inclusion/exclusion file to import. The file must be in CSV format (see <i>CSV Format</i> for more information). Importing an inclusion/exclusion list overwrites the existing file. An import does not merge changes.		
	Note: If the CSV file has errors in it, the import will fail and the existing data will remain unchanged. An error message will indicate why the import failed and identify the record that failed if applicable.		
	After importing a CSV file, you must click Save to save your changes.		
Export	Allows you to select the location and specify a name for the exported inclusion/exclusion list. The file must be in CSV format. Once exported, you can open the file in Microsoft Excel.		

CSV Format

The CSV file containing the inclusion/exclusion list must use the following format:

Pattern	Туре	Bounds
A number pattern with optional * and ? wild-cards	One of the following types:	One of the following directions:
	■ Extension	■ Inbound
	■ Calling	■ Outbound
	■ Called	■ Either
	■ Any	■ Excluded

When creating an inclusion/exclusion list, remember the following points:

- Exclusions are matched before inclusions, but exclusions can appear anywhere in the CSV.
- Within each group (inclusions and exclusions), patterns are matched starting from the top and working down the list.
- Additional columns after Pattern, Type, and Bounds are allowed in an imported CSV.
 However, the additional columns will be ignored.

Gateway Recording Considerations

The considerations in this topic apply to the following Gateway Recording method:

■ Cisco CUBE Recording via SIP Recording

When the call direction cannot be determined, the Inclusion List will only match a Direction with a value of Either. All calls, both inbound and outbound, appears as inbound. Cisco recommends setting the value of the Direction to Either when creating an exclusion for a Gateway Recording method.

Cisco MediaSense Recording Considerations

If you are using Cisco MediaSense Recording, the Inclusion List affects which recordings are uploaded to Quality Management. Initial recording decisions are based on the Cisco MediaSense configuration.

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

- The entire call is recorded and saved on the Cisco MediaSense Recording cluster.
- Quality Management only downloads Cisco MediaSense recordings that appears in the Patterns to be Recorded list.
- Quality Management does not download Cisco MediaSense recordings that appear in the Patterns to be Excluded from Recording list.

When the call direction cannot be determined, the Inclusion List will only match a Direction with a value of Either. Cisco recommends setting the value of the Direction to Either when creating an exclusion for Cisco MediaSense Recording.

Managing Extension Patterns

To manage extension patterns:

- 1. Select the appropriate telephony group cluster tab in the Inclusion List window.
- 2. Choose one of the following options:
 - Add an extension pattern. Click Add beneath the Patterns to be Recorded or Extensions to be Excluded, type a number in the Add Pattern dialog box, click OK, and then complete the remaining fields in the table.

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

Enter This:	To Record:						
6124	Number 6124.						
61*	Any number that start with 61 and are of any length.						
	Example: 6124, 61555, 613						
61??	Any number that start with 61 and are 4 digits long.						
	Example : 6124, 6125, 6126						

- Modify a call type. Select an extension pattern, click Modify Type, select the different type from the drop-down list, and then click OK.
- Modify a call direction. Select an extension pattern, click Modify Direction, select a different direction from the drop-down list, and then click OK.
- Remove an extension pattern. Select the extension pattern in Patterns to be Recorded or Extensions to be Excluded, click Remove, and then click OK.
- Import an inclusion/exclusion list. Click Import, select the location, the file name of the inclusion/exclusion list, click OK, and then click Save.

- Export an inclusion/exclusion list. Click Export, select the location, type the file name of the inclusion/exclusion list, and then click OK.
- 3. Click Save.

Excluding Extension Patterns

If you have a limited number of extension patterns you want to exclude from being recorded, you can configure the Inclusion List to ignore only those extension patterns and record all others.

Example: If you want to record all extension patterns except for extensions 3411, 3412, and 3413, configure your inclusion list so that there is an asterisk in the Patterns To Be Recorded list, and extensions 3411, 3412, and 3413 listed in the Patterns To Be Excluded From Recording list.

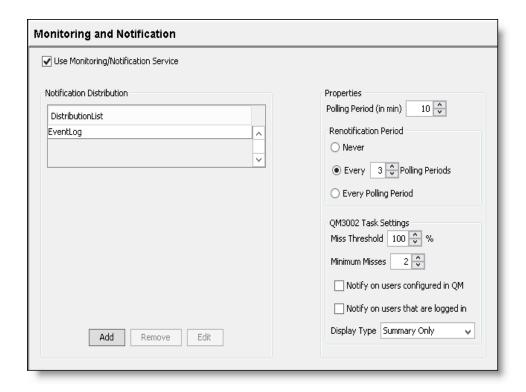
Extension patterns listed in the Patterns To Be Excluded From Recording list always take precedence over extension patterns listed in the Patterns To Be Recorded section. You cannot use the same extension pattern (specifically or through the use of wildcards) in both lists.

Example: 12* cannot appear in both lists.

Monitoring and Notification

Use the Monitoring and Notification window to enable the Monitoring and Notification (MANA) service and add a distribution list for notifications.

The following image displays the Monitoring and Notification window for Unified CCX.



Only one notification trigger requires configuration: Problem ID QM3002 under QM Task Settings. This trigger compares data in the Unified CM's Call Detailed Records (CDR) Report (for Unified CM versions 8.x+ and 9.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, Network Recording, or Desktop Recording and Cisco MediaSense Recording are used together, the CDR Report will not be accurate since Cisco 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 Notification Distribution dialog box.

You can create multiple distribution lists. For each distribution list, you can choose to specify the events that trigger notification.

Example: You can set up a distribution list for global outages (all QM1000 level errors) and all "JTAPI not associated with a device" (specific QM2002 error).

You can also configure the following information:

- Distribution list of persons receiving notification, if you configure email as a means of notification
- 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 postinstall.exe or Quality Management Administrator on the Web Base server. The Monitoring and Notification window in Quality Management Administrator on a desktop is read-only.

Connection information is saved locally to the Web 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.

Field or Button	Description					
Use Monitoring/ Notification Service	Select this check box to enable the MANA service. If enabled, at least one notification method (event viewer, SNMP, or email) must be enabled as well. This check box is selected by default.					
Distribution List	The available distribution lists.					
Add	Add a distribution list.					
Remove	Remove a distribution list.					
Edit	Edit the selected distribution list.					
Polling Period	Sets the interval at which the MANA service checks for the selected notification triggers. Default = 10 minutes, Minimum = minutes, Maximum = 1440 minutes (1 day). The timer starts when the last polling task is complete.					
	Note: When you change the polling period, it takes one polling cycle before the new polling period goes into effect.					

Field or Button	Description			
Never	Choose this option if you do not want to be renotified of a problem after the initial notification.			
Every N Polling Periods	Choose this option if you want to specify how frequently you want renotification to occur after the initial notification and specify the number of polling periods. 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.			
Every Polling Period	Choose this option if you want renotification to occur every polling period after the initial notification.			
QM Task Settings	The fields listed in the QM Task Settings section are used to configure QM3002.			
Miss Threshold	Percentage of missed CDRs required to trigger notification.			
Minimum Misses	Lowest number of missed CDRs required to trigger notification			
Notify on users configured in QM	When you select this option, Quality Management only generates notifications about users who are configured in Quality Management.			
Notify on users that are logged in	When you select this option, Quality Management only generates notifications about users who are currently logged in to a desktop where the Desktop Recording service is installed. This only applies to the Desktop Recording service.			
Display Type	Choose one of the following options.			
	 Summary Only—displays 1 row per agent with missed CDR that meet the above criteria. See Summary Only for an example. 			
	 Details (Tab Delimited)—displays each missed CDR in tab delimited format. See <i>Detail (Tab Delimited)</i> for an example. 			
	 Details (Plain Text)—displays each missed CDR in text format. See Detail (Plain Text) for an example. 			

Configuration Settings Used By Services

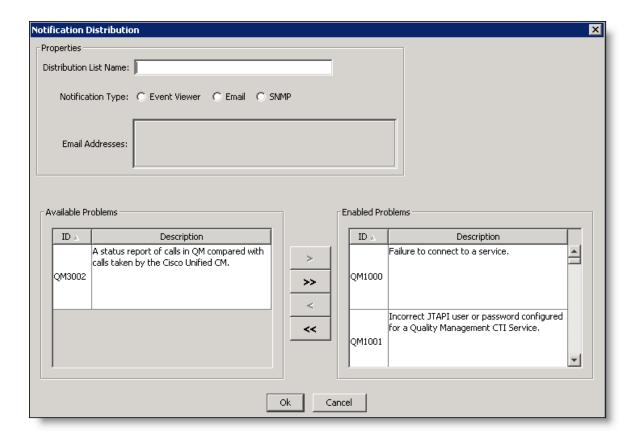
If you change the settings on the Monitoring and Notification window, the following table shows when your changes take effect.

Service	Configuration settings applied when
MANA service	The next polling period applies the configuration settings.

Notification Distribution

The Notification Distribution dialog box allows you to create a distribution list, specify the notification type for the distribution list, and assign the type of MANA alerts that are sent to the distributions list.

The following image displays the Notification window for Unified CCX.



The MANA alerts are classified as follows:

- QM1xxx—indicates a global outage that might affect recording for the entire system.
- QM2xxx—indicates individual outages that might affect recording for individual users.

- QM3xxx—indicates a possible configuration problem. The notifications might not point to an actual issue, so you might want to turn these notifications off to avoid unnecessary notifications.
- QM4xxx—indicates a problem with MANA that prevents it from reporting problems.

Field	Description
Distribution List Name	The name of the distribution list.
Notification Type	The type of notification you want to use to send notification messages. Your options are:
	 Event Viewer–use the Event Viewer for displaying notification messages
	■ Email—use email for sending notification messages
	 SNMP—use SNMP for sending notification messages
Email Addresses	The list of email addresses to which notification is sent. Maximum = 5 email addresses. A comma is required to separate two or more email addresses.
	Example: jane.doe@acme.com, john.smith@acme.com, robert.dee@acme.com
	Note: This field is enabled when you select Email as your notification type.
Available Problems	The list of problems that will not trigger notification. Move any problem that does not require notification to the Available Problems list. QM3002 appears in this list by default.

Field	Description
Enabled Problems	The list of problems that will trigger notification. By default, all problems are enabled, except for QM3002. You must configure QM3002 under QM Task Settings in the Monitoring and Notification window before you can enable this Call Detail Record (CDR) task.
	Note: QM3002 is not supported with Cisco MediaSense Recording.
	See Configuring the QM3002 Notification Trigger for more information.

Managing Notification Distribution Lists

To manage notification email addresses:

- To add a distribution list, perform the following steps.
 - Click Add in the Notification Distribution section.
 - Type the name of the distribution list in the Distribution List Name field.
 - Type the email addresses that are included in the distribution list in the Email Addresses field.
 - Move the type of problems you want sent to this distribution list to the Enabled Problems list.
 - · Click OK.

The new distribution list appears in the Distribution List.

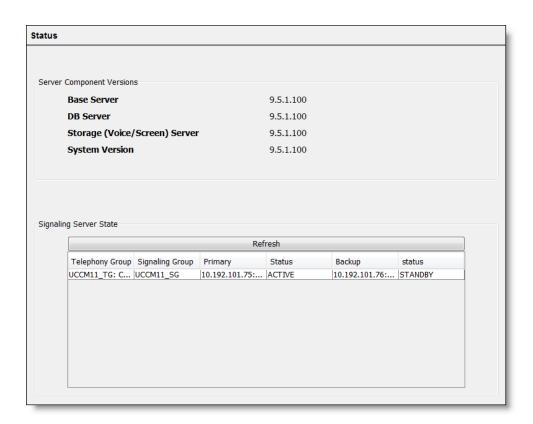
 To remove a notification distribution list, select the distribution list from the Distribution List, click Remove, and then click OK.

The distribution list is removed from the Distribution List.

■ To edit a notification distribution list, select the distribution list from the Distribution List, and click Edit. In the Notification Distribution dialog box, modify the distribution list that you want to change, and then click OK.

Status

The Status window reports the version of the installed Quality Management components and displays the status of the signaling servers by telephony group. Click refresh to see the latest signaling server information.



Configuration Settings Used By Services

If you change the product version, the following table shows when your changes take effect.

Service	Configuration settings applied when
Upload Controller service	Periodically check for a version mismatch.

Manually Installing the Cisco JTAPI Client

Follow the instructions in this task only if the postinstall.exe did not automatically install the Cisco JTAPI Client in the Cisco environment.

Note: This task is not required if you are configuring Quality Management for Cisco MediaSense Recording.

To manually install the Cisco JTAPI Client:

- 1. Stop the Recording CTI service or CUBE SIP CTI service.
- 2. Download the Cisco JTAPI Client from the Unified CM Plug-ins webpage.
- 3. Install the Cisco JTAPI Client on the Quality Management server where the Recording CTI service or CUBE SIP CTI service is installed.
- 4. Copy the jtapi.jar file from the C:\WINDOWS\ java\lib folder to the C:\Program Files\Cisco\WFO_QM\ext folder

If you are not using the default path to the java\lib folder specified in step 4, copy the jtapi.jar file to correct folder.

- 5. Start the Recording CTI service or CUBE SIP CTI service.
- 6. Start postinstall.exe in C:\Program Files\Cisco\WFO_QM\bin.
- 7. Choose Tools > Test CTI Service.

The CTI Service Ready dialog box appears and displays the following message:

The CTI Service test completed successfully.

8. Click OK to dismiss the dialog box and close the System Configuration Setup window.

Rules for Upgrading or Modifying the ACD Database in Update Mode

Observe the following rules when you change access to the Unified CCX Administration database in update mode:

- Do not change the location of the Unified CCX Administration database after initial setup. If you do, you might be unable to access Quality Management historical data if the structure and contents of the new database is not the same as that of the old database.
- Stop the Sync Service and disable this service on startup to protect the Quality
 Management database before you upgrade or rebuild the Unified CCX Administration database.

Stopping the Sync Service Before Upgrading the ACD Database

Perform this task before you upgrade the Unified CCX Administration database.

To stop the Sync service:

- 1. Select Start > Administrative Tools > Services. The Services window appears.
- 2. Right-click Monitoring and Recording Sync Service and choose Stop.
- 3. Right-click Monitoring and Recording Sync Service again and choose Properties.

The Monitoring and Recording Sync Service Properties window appears.

- 4. Choose Disabled from the Startup Type drop-down list, and click OK to save your changes.
- 5. Upgrade or rebuild the Unified CCX Administration database.
- 6. Return to the Services window, right-click Monitoring and Recording Sync Service and choose Start.
- 7. Right-click Monitoring and Recording Sync Service again, choose Automatic from the Startup Type drop-down list, and then click OK to save your changes.

This action enables the Sync Service on startup.

Note: Do not start Sync Service and enable the Sync Service for the hardware profile until both Unified CCX Administration databases (if using High Availability) are running and synchronized because the Sync Service reads data from the Unified CCX Administration database. Failing to do so could potentially deactivate users if there is a problem with the Unified CCX Administration upgrade or rebuild.

8. Verify the teams and agents in the upgraded Unified CCX Administration appear correctly.

Changing the Web Base Server

To change the IP address or host name for the Web Base server:

From the postinstall.exe, choose File > Choose Base Server.

The System Configuration Setup dialog box appears window appears.

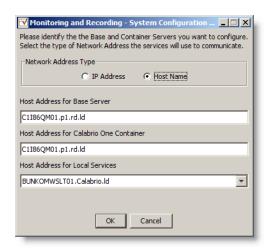
- 2. Choose the network address type. Your options are:
 - IP Address—the IP address of the base server.
 - Host Name—the FQDN or hostname of the base server.
- 3. Enter the IP address or hostname of base server.

The base server is the computer where you installed the Web Base Services, Database Services, Voice/Screen Services, and signaling service.

4. Enter the IP address or hostname of the Unified Workforce Optimization Container.

The Unified Workforce Optimization Container is located on the base server.

If you also purchased WFM, this product will share this container once it is configured to point to this container. The following figure displays the System Configuration Setup dialog box.



- 5. Choose one of the following options:
 - If you are running postinstall.exe on the base server, choose the IP address or hostname of the base server from the Local Services drop-down list, and then click OK.
 - If you are running postinstall.exe on a different server, choose the IP address or hostname for the server from the Local Services drop-down list, and then click OK.

Example: If you want to run Network Recording on a different server and installed the Network Recording service and Monitor service on that server, choose the IP address for the Network Recording server from the IP Address for Local Services drop-down list. If the computer has multiple NICs, multiple addresses appear in the IP Address for Local Services drop-down list. Choose the IP address used for network traffic.

To change the configuration data in update mode:

1. Start postinstall.exe.

This executable is located in the C:\Program Files\Cisco\WFO_QM\bin folder.

- 2. Select the window you want to modify from the left pane, enter the new data in the right pane, and then click Save on the toolbar or File > Save from the menu bar.
 - You can display the windows in any order you wish.
 - If you modify something in a window, you must click Save to save your changes before you move on to another window.
 - If you make a change to a window but need to change back to the original setting, click the Revert to Saved button on the toolbar. This discards any changes you made that have not been saved, and restores the settings in the window to the last saved version.
- 3. When you finish, choose File > Exit or click Close.
 - System Configuration Setup closes.
- 4. Stop and restart the modified service and all desktops for the change to go into effect.

System Configuration Setup Tools

System Configuration Setup (postinstall.exe) provides a number of tools you can use to update your site information. These tools are available through the Tools menu. These tools normally run during the initial installation of Quality Management.

The Tools menu, in postinstall.exe, only enables tools when the tools are available on the server where you are running the postinstall.exe.

The following table displays the available tools and the servers on which they are located.

Tool availability in Postinstall

Tool	Web Base	Opera- tions	Data base	Site Upload	СТІ	Voice Record & Mon- itor	Media Encoding
Start Local Services	х		х	х	х	х	х
Create Database Catalogs	х		х				

	Servers						
Tool	Web Base	Opera- tions	Data base	Site Upload	СТІ	Voice Record & Mon- itor	Media Encoding
Generate Info for MSI Clients	х						
Download/Install JTAPI					х		
Encrypt Audio Files				х			
Set Recording Home Directory				х			
Generate SSL Certificates	х			х			
Test CTI Service(s)	х		х	х	х	х	
Test MediaSense Subscription Ser- vice	х		х	x	х	х	
Display Metadata Encryption Key	х		х	x	х	х	х
Choose Monitor Adaptor						х	
Remove Recording Services	х		х	х	х	х	х
Set Temporary Recording Directory						х	
Set Temporary Encoding Directory							х
SIP Trunk Cer- tificate					x*	х	
Change IP Addresses or Host Names				х		х	x

	Servers						
Tool	Web Base	Opera- tions	Data base	Site Upload	СТІ	Voice Record & Mon- itor	Media Encoding
Recording File Encryption Key							х

^{*} When using secure SIP or SRTP, the CTI server requires a SIP Trunk Certificate.

Start Local Services

This tool offers a convenient way to start all the Quality Management that are on the local computer. You can run this tool any time. However, you should notify users because restarting services might cause outages.

Create Database Catalogs

This tool creates a new Quality Management database if one does not exist or updates an existing database to the latest schema version without overwriting any existing data. You can use this tool to recreate your Quality Management database if you have no backup database and your database was corrupt and you deleted it. This tool populates a fresh database when the Unified CCX and Data API sync with it.

Generate Info for MSI Clients

This tool updates the information required by the MSI client installation programs to successfully install the Desktop Recording service, Recording Thin Client, and Quality Management Administrator.

Download/Install JTAPI

Use this tool when you upgrade Unified CM. This tool downloads and installs JTAPI.

Encrypt Audio Files

This tool enables you to encrypt any unencrypted audio files. Run this tool only after you upgrade all desktops to the latest version of Quality Management. All audio files are encrypted after you run this tool.

Set Recording Home Directory

This tool allows you to restart services after you update the Site Settings window. Run this tool when upgrading from the Basic license to the Advanced license.

Generate SSL Certificate

This tool generates a security certificate for the Media webapp and Unified Workforce Optimization-generated reports. Use this tool if your certificate is corrupt or if the IP address of the server changes (the user sees a Security Alert dialog box whenever the Media webapp or Reports runs). This tool is

available only when you run postinstall.exe on the Quality Management server (for reporting) and the Site Upload server (for Media webapp).

When you run the tool, you see a Security Alert dialog box. Click View Certificate to display the Certificate dialog box, and then Install Certificate to install a new certificate.

Test CTI Services

This tool verifies that the local Recording CTI service or CUBE SIP CTI service has the correct JTAPI and accepts connections. The tool makes a request to each running Recording CTI service or CUBE SIP CTI service and, if all succeed, returns a success message. If any requests fail, Quality Management reports the failure and lists which succeed. The reports are available in Unified Workforce Optimization.

Note: This tool is not required for Cisco MediaSense Recording.

If you made any changes to the Recording CTI service or CUBE SIP CTI service in postinstall.exe, you must restart the Recording CTI service or CUBE SIP CTI service before you run this test.

Test MediaSense Subscription Service

This tool verifies that the running MediaSense Subscription Service has the correct connection and authentication information and accepts connections. This tool makes a request to the MediaSense Subscription Service and, if it succeeds, it returns a success message. If the request fails, Quality Management reports the failure.

If you made any changes to the MediaSense Subscription Service in postinstall.exe, you must restart the MediaSense Subscription service before you run this test.

Display Metadata Encryption Key

This tool displays the customer-specific key used for Advanced Encryption Standard (AES) encryption. This key can be used by external applications to access encrypted user-defined metadata directly from the Quality Management database. You must provide the administrator's user name and password to access this information.

Choose Monitor Adaptor

This tool displays a dialog that asks for the IP address of the NIC card used for the Monitor service and server-based monitoring. This might be different from the network IP address you entered during System Configuration Setup (postinstall.exe).

The monitor adapter dialog pops up automatically during postinstall.exe if multiple NIC cards are on the box and the box hosts the Monitor service. You should choose the IP address of the NIC card that you connected to the SPAN port on the switch.

Note: This tool is not required for Cisco MediaSense Recording.

Remove Recording Services

Use this tool to finalize the removal of Network Recording service and Monitor service servers by removing them from database. Uninstall the services from the server before you use this tool.

Set Temporary Recording Directory

This tool allows you to choose a temporary storage location for recordings before they are uploaded. You can change the temporary storage location at any time. When you change the temporary storage location, postinstall.exe moves the recordings to the new location.

Set Temporary Encoding Directory

This tool allows you to choose a temporary storage location for encodings before they are uploaded. You can change the temporary encoding location at any time. When you change the temporary encoding location, postinstall.exe moves the encodings to the new location.

SIP Trunk Certificate

Use this tool to generate, upload, or download a SIP trunk certificate. A SIP trunk certificate is required when your system is configured for Network Recording with Cisco Unified CM 8.5 or later. See the Cisco CUCM documentation for any changes to the required CUCM configuration for your version.

Note: This tool is not required for Cisco MediaSense Recording.

To manage a SIP trunk certificate:

- Select Tools > SIP Trunk Certificate, choose one of the following options, and follow the prompts:
 - Generate SIP Trunk Certificate—use this tool to generate a SIP trunk certificate. The SIP trunk certificate is saved to the C:\Program Files\Common Files\QM\Certificates folder.
 - Upload SIP Trunk Certificate—Use this tool to upload a SIP trunk certificate from a flash drive or folder.
 - Download SIP Trunk Certificate—Use this tool to download the SIP trunk certificate to a
 flash drive or folder. Follow the upload instructions in the Cisco Unified Communications
 Manager Administration Guide to upload the certificate to Cisco Unified CM.
- Copy and upload both the Certificate and Key files generated to any additional CTI servers
 using the same menu if you want every server to use the same certificate. Otherwise
 repeat this entire process for each CTI server.
- 3. Upload the Certificate file to your CUCM OS Administrator.

Change IP Addresses or Hostnames

This tool allows you to change the IP address or hostname for the Site Upload server (Site Services), Recording Server, Monitor server, and Media Encoding server (Encoding Server). During an upgrade, this feature runs automatically after the Quality Management Quality Management database is initialized.

Recording File Encryption Key

This tool enables you to generate and manage your own encryption keys if desired. It is available only on servers that host the Media Encoder Service. With it, you can generate a new key and export and import the keystore to and from a specified location.

About Encryption

Quality Management provides a set of default encryption keys. These default keys are global, not customer specific. They do not require backup because they can be restored when you reinstall the Site Upload Server bundle. Creating your own private encryption keys with the Recording File Encryption Key tool is optional.

IMPORTANT: If you decide to generate new encryption keys, you must generate them on only one Media Encoder Service server, and then import the keystore from that server to all other Media Encoder Service servers in your system. Do not generate keys on multiple Media Encoder Service servers.

Best Practice: It is strongly recommended that you export your keystore to a secure location for safekeeping. If you lose the keystore, you will not be able to read any of your encrypted files. The keystore cannot be recovered or regenerated.

Encrypting voice and screen recordings protects sensitive information such as Social Security numbers and credit card numbers. The encryption feature complies with the Payment Card Industry Data Security Standard (PCI DSS). When a recording is encrypted, the recording file stored on the agent's computer or on the storage server cannot be copied and played back.

When you use the Recording File Encryption Key tool, you generate a new set of customer-specific keys. This provides a higher level of security for your contact center by ensuring that the encryption keys are unique. Recording file encryption uses an asymmetric key pair (public/private) to encrypt recording files. Once new keys are generated, the public key is published and all new recordings going forward are encrypted using the newly created public key. The private keys are used to decrypt the recordings for playback.

The Media Encoder service automatically detects new keys and uses these new keys within ten minutes of your generating the keys. The keys are stored locally on the Media Encoder service server under the Common Files folder. This ensures the keys are not modified or lost during an upgrade.

Recordings are placed in a queue for encryption after the recording ends. The time it takes to complete the encryption depends on the system's volume and load. They are then uploaded through an encrypted connection to the storage server.

Managing Encryption Keys

To generate a new key, follow these steps:

- 1. On a Media Encoder Service server, choose Tools > Recording File Encryption Key > Generate New Key. A warning dialog box appears.
- 2. Read the warnings, and then click Yes to continue.

Note: If the warning tells you that this server does not have the latest keystore, it means that a new key was previously generated on a different Media Encoder Services server and that this server does not have that key, making it impossible for this server to decrypt recordings encrypted with the newer key. You should import the latest keys to this server before generating a new key on it.

3. The new key is generated and placed in the local keystore, located here:

C:\Program Files\Common Files\QM\config\filecryptokeystore

WARNING: Never change the filecryptokeystore file in any way, delete it, or paste a changed version over the file. Doing so makes recording calls impossible.

Always use the PostInstall Recording File Encryption Key import/export options to export the filecryptokeystore file. Always remember to keep the file in a secure place.

Note: When upgrading from a previous version of QM that used Proxy screen recordings (such as version 9.3 and earlier), keep your filecryptokeystore file from the earlier version to use with the RecToM4VEncoder utility. This utility needs that file to decrypt the older screen recordings, and to re-encode them for playback in the new version.

To export a keystore, follow these steps:

- On the Media Encoder Service server where you generate new keys, choose Tools > Recording File Encryption Key > Export Keys.
- Browse to a location to save the keystore, such as a portable flash drive, or to a secure location for safekeeping.
- 3. Name the keystore, then click Okay to export the keystore. You cannot overwrite an existing exported keystore.

To import and merge new keys into the local keystore on another Media Encoder Service server, follow these steps:

- On one of the Media Encoder Service servers in your system, choose Tools > Recording File Encryption Key > Import Keys.
- 2. Navigate to the location where you exported the keystore, select the keystore, and click Okay.
- 3. The new keys in the keystore are merged into the local keystore on this server, located at:

```
{\tt C:\Program\ Filesl\Common\ Filese\QM\config\filecryptokeystore}
```

- 4. Repeat these steps on all Media Encoder Service servers in your system except the one from which the keystore was exported.
- 5. After the keystore is imported to all Media Encoder Service servers, restart all instances of the following services:
 - Desktop Recording Service
 - Network Recording Service (VoiceRecordServer.exe)
 - Recording Thin Clients (ScreenRecordServer.exe)

The new key will not be used for encryption until these services are restarted.

Record Server Configuration

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

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

You can enable Server Recording, Network Recording, and Network Based 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) in a Unified CCX environment
- Agents using Citrix or Microsoft Terminal Services thin clients (audio and screen recording)
- Agents using just a phone, and no PC (audio recording only)

If an agent's phone is configured for Server Recording, Network Recording, and Network Based Recording,

- The agent can be recorded
- Supervisors and managers can monitor a live call

Note: You cannot monitor the default user, even if the default user is recorded using Network Recording, or Network Based Recording.

Server Recording, Network Recording, and Network Based Recording have the following limitation: a device cannot be simultaneously registered for Server Recording and Network Recording or Network Based Recording. You can, however, change the configuration from Server Recording to Network Recording or Network Based Recording, or from Network Recording or Network Based Recording to Server Recording.

VoIP Devices

The VoIP Devices window supports VoIP devices in the telephony groups (Unified CM clusters) for Server Recording (SPAN), Network Recording, or Network Based 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. See *Enabling VoIP Devices for Recording* for more information.

The VoIP Devices window allows you to search for the devices configured in Unified CM and enable the devices for Server Recording, Network Recording, or Network Based Recording. You can then associate an agent, a Monitor service server (Server Recording only), and a Recording Cluster with those devices.

Field	Description		
Users Assigned to Site	The site's IP address. You can filter knowledge workers by site. You can choose from the following:		
	■ All Sites		
	Default Site		
	<site's address="" hostname="" ip="" or=""></site's>		
In Telephony Group	The IP address for the telephony group. Your options are as follows:		
	Unified CCX:		
	■ All Groups		
	<telephony address="" group's="" hostname="" ip="" or=""></telephony>		
Where	Search devices by a specify component. You can choose from the following:		
	■ Agent		
	Device Name		
	■ Extension		
	(Unified CCX only) Monitor Server		
	■ Recording Cluster		
	■ Recording Type		
	■ Signaling Group		
Matches	The name or extension number of the component.		
	You can use wildcards (*) and question marks (?) in this field, in addition to a specific string.		
	Note: This field is case sensitive.		

Field	Description		
Find	When clicked, locates every device that matches the search criteria. Note: The VoIP Devices window must be populated before the Find button can display search results. See Enabling VoIP Devices for Recording for more information.		
Device Name	The name of the device.		
	Accepted prefixes in device names are IPC, CSF, and SEP, for example, IPC <username>. Devices with these prefixes are treated as IP phones.</username>		
Device Type	The type of device. The device types are:		
	■ All Types		
	■ Cisco Phone		
	User Profiles		
	■ Remote Agent Port		
Telephony Group	The IP address for the telephony group (Unified CM cluster).		
Extension	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.		

Field	Description		
Agent or Configure Agent	Allows you to assign one of the following login options to a device. User Login Required—choose this option to configure the device for Hot Desking. If you choose this option, the device will not be recorded until an agent or knowledge worker logs in using the Recording API. 		
	 <last (user="" first="" id)="" name,="">—choose this option to assign a specific agent, knowledge worker, or default hoteling agent to the device.</last> 		
	You can double-click the Agent field or click the Configure Agent button when you want to associate a login option with a device. Before you click Configure Agent, you must select one or more devices. When using the Agent drop-down list or the Configure Agent button to a assign device to an agent or a knowledge worker, consider the following: Recording and Quality Management is licensed by the number of named users. Named users are users who are configured and licensed.		
	Example: agents, knowledge workers, supervisors, managers, evaluators, and archive workers		
	The total number of devices that you can assign to Default Hoteling Agents is equal to the total number of licenses for your system.		
	Assigning a device to a Default Hoteling Agent does not use or consume a license, it just puts a limit to the number of devices that can be assigned to a Default Hoteling Agent. This prevents a situation where Login commands are not processed when the Web Base server is not avail- able or there is an error when a user tries to log into the system. It ensures the device is recorded no matter what		

Field	Description			
	the situation is.			
	 Do not assign a Default Hoteling Agent to Extension Mobility profiles. 			
	If you do not assign the device to a Default Hoteling Agent and intend to use Hot Desking you must choose User Login Required from the Configure Agent drop-down list. This ensures that the device will be recorded when someone logs into the device using Extension Mobility or the Login API command.			
Monitor Server or Configure Monitor Server	Allows you to associate the IP address for the Monitor server with this device. If a Monitor server is not applicable, the field displays No Configuration.			
	Example: You cannot associate a Monitor server with a Remote Agent Port or User Profile.			
	You can double-click the Monitor Server field or click the Configure Monitor Server button when you want to associate a Monitor server with a device. Before you click Configure Monitor Server, you must select one or more devices.			
Signaling Group	Displays the signaling group associated with this device.			
Recording Cluster or Configure Recording Cluster	Allows you to assign the Recording Cluster to a device. If a Recording Cluster is not applicable, the field displays No Configuration.			
	Example: You cannot associate a Recording Cluster with a User Profile.			
	You can double-click the Recording Cluster field or click the Configure Recording Cluster button when you want to assign a Recording Cluster to a device. Before you click Configure Recording Cluster, you must select one or more devices.			

Field	Description		
Recording Type or	Allows you to assign recording type to a device.		
Configure Recording Type	You can double-click the Recording Type field or click the Configure Recording Type button when you want to select a recording type for a device. Before you click Configure Recording Type, you must select one or more devices.		
	You can choose from the following options:		
	 Event Notification—Choose this option when you are not using Server Recording, Network Recording, or Network Based Recording but you would like to use Live Monitoring and/or Screen Recording: 		
	 Server Recording —choose this option to use Server Recording (SPAN). 		
	Reconciliation—choose this option when the only type of recording you are doing is reconciliation. You do not need to choose this option to enable reconciliation, all calls are reconciled. Choose this option when you are not using Event Notification, Server Recording, Network Based Recording, or Network Recording. This option is appro- priate for MediaSense or Gateway Recording.		
	 Network Recording—choose this option to use Network Recording. 		
	Example: Assign Event Notification to a device configured for Cisco MediaSense Recording to allow Live Monitoring and Screen Recording.		
	You cannot configure the recording type for a User Profile device.		
Remove From Configuration	When clicked, Remove from Configurationallows you to remove one or more devices from the VoIP Devices table.		
	Note: You must select one or more devices before clicking the button.		

Field	Description		
Import Devices	Allows you to select the location and name of devices file to import. The file must be in CSV format (see <i>CSV Format</i> for more information). Importing a device list merges with the existing file and adds new devices or modifies existing devices. It does not remove existing devices. If a configured devices does not appear in the imported file, it will not be affected by the import. Note: If the CSV file has errors in it, the import will fail and the existing data will remain unchanged. An error message will indicate why the import failed and identify the record that failed if applicable. After importing a CSV file, you must click Save to save your changes.		
Export Devices	Allows you to select the location and specify a name for the exported device list. The file must be in CSV format. Once exported, you can open the file in Microsoft Excel.		
Enable Unified CM Devices for Recording	When clicked, Enable Devices for Recording allows you to search for devices in Unified CM and enable those devices for recording in Quality Management.		
Synchronize Devices With Clusters	When clicked, Synchronize Devices With Clusters allows you to synchronize device 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.		

Field	Description		
Create/Edit Default Hoteling Agent	When clicked, allows you to create or modify one or more Default Hoteling Agents. You must provide the following information for each Default Hoteling Agent:		
	■ First Name—the Default Hoteling Agent's first name.		
	 Last Name—the Default Hoteling Agent's last name. 		
	 Windows Username—the login ID for the Default Hoteling Agent. 		
	 Teams—the team assigned to the Default Hoteling Agent. The assigned team determines the scope for the Default Hoteling Agent. 		
	This is a generic user profile. The agent does not log into the phone using this user profile. It is assigned to a device in case an agent does not log in. The total number of Default Hoteling Agents is equal to the total number of licenses for your system.		

The following items must be associated with each recording type.

Recording Type	Associated Items	
Server Recording	Agent	
	Monitor server IP address	
	Recording Cluster name	
	Recording type of "Server Recording"	
Network Recording	Agent	
	Recording Cluster name	
	Recording type of "Network Recording"	
Network Based Recording	Agent	
	Recording type of "Reconciliation"	

When configuring VoIP devices using Gateway Recording for agents, consider the following:

- Unified CM telephony group:
 - The Endpoint only Does Screen Recording check box must be selected in the Unified CM Configuration dialog box (see *Unified CM Configuration*).

Note: If the Endpoint only Does Screen Recording check box is cleared, the phone device will default to Desktop Recording (Endpoint).

■ ACD agent:

- If the agent's phone is daisy-chained you do not need to configure the device in the VoIP Devices window.
- If the agent's phone is not daisy-chained the device must be configured in the VoIP Devices window.
- Knowledge worker:
 - The agent's phone must be configured in the VoIP Devices window.
 - If the agent requires screen recording in a CUBE or MediaSense Recording environment, you need to assign Event Notification to the device and a Recording Cluster that connects to a CTI server and has no Recording Servers assigned to it.

When configuring VoIP devices using Gateway Recording and you plan to use Recording Controls, consider the following:

- The Endpoint only Does Screen Recording check box must be selected in the Unified CM Configuration dialog box (see *Unified CM Configuration*) when you configure the Unified CM telephony group.
- Recording Type must be set to either Event Notification or Reconciliation.

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

- The CTI service checks for valid licenses every sync.
- If a license becomes invalid or a user's license is added, removed, or changed, the change will take effect the next time the CTI service syncs.
- If the license server is unavailable, the CTI service will use the last licensing state that it successfully received.

Consider the following when you configure a VoIP device for Server Recording, Network Recording, or Network Based Recording.

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

Example: 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 in a Unified CCX environment
- Sharing the same extension
- Logging into the Recording API—see the API Programmers Guide for more information on the Recording API

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 use the Login and Logout commands for the Recording Controls API.
- If an agent is already logged in to a different device, 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 Controls API to log into the device (the login will be ignored).
 - The agent can use the Recording Controls API to log into a different 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 Controls 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 Controls 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 service supports Hot Desking, provided the agents use their own accounts to log in and log out of their client machine.

Synchronization Issues

Note: This information only applies to Unified CCX.

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 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.

Enabling VoIP Devices for Recording

To enable VoIP devices for recording:

On the VoIP Devices window, click Enable Devices for Recording.

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 ?) or specific numbers in the Matches field. This field is case sensitive.

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

The devices you selected appear on the list of VoIP devices.

Configuring Devices for VolP

To configure a device for VoIP monitoring:

Note: To configure multiple devices, see *Managing VoIP Devices*.

1. Enable the devices for recording.

See Enabling VoIP Devices for Recording for more information.

2. Find the devices to be configured.

See Filtering VoIP Devices for more information.

- 3. Assign a device to a Recording Type.
- 4. Assign a device to an agent, the default hoteling agent, or User Login Required.
- 5. Assign a device to a Recording Cluster.

The Recording Cluster is not required for User Profiles.

- 6. Assign a device to a Monitor server.
- 7. Assign a device to a recording type.
- 8. Click Save.

Filtering by Site

To filter agents or knowledge workers by site:

• Choose a site from the Users Assigned to Site drop-down list.

The agents or knowledge workers associated with the selected site appear in the VoIP Devices window.

Filtering VoIP Devices

To filter VoIP devices:

- 1. On the VoIP Devices window, choose a site from the Users Assigned to Site drop-down list.
- Choose the type of device you want to locate from the Find Devices of Type drop-down list in the Device Search pane.
- 3. Choose the IP address for the cluster from the In Cluster drop-down list.
- 4. Enter the name of the device or extension for the device in the Where drop-down list You can use wildcards * and question marks? in this field, in addition to a specific string.
- 5. Click Find.

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

Extension Mobility

When configuring agents for extension mobility in a Network Recording, Network Based Recording, or Server Recording environment, you need to ensure the following:

- A user profile is associated with each agent
- Every phone an agent can log in to is associated with a Recording Cluster

When an agent logs in to a phone, their calls are recorded by the Recording Cluster 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 Devices 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.
- You can also configure Extension Mobility Cross-Cluster (EMCC), in which the physical phone is unregistered and in CUCM a new (temporary) phone is created and used by CUCM. The new temporary phone in the visiting CUCM cluster inherits everything from the home CUCM cluster. EMCC is configured by setting the Device Type to User Profile, Recording type to Network Recording, and then selecting a signaling group and recording cluster for the device.

Note: The Build in Bridge (BIB) must be enabled on the visiting cluster in the callManager service parameters before EMCC is configured.

To configure a user for Extension Mobility:

- 1. From the VoIP Devices window, select a device assigned to the Extension Mobility profile (Device Type is User Profile) created in Cisco Unified CM, and then click Configure Agent.
 - The Configure Agent dialog box appears
- 2. Choose Default Hoteling agent or User Login Required from the Configure Agent drop-down list.
 - To ensure all calls are recorded on the phone, choose the default Hoteling agent from the Configure Agent drop-down list.
- 3. Assign the device to a recording cluster.
- 4. Assign the device to a signaling group.
- 5. Assign the device to a recording type.
- 6. Click Save.

CSV Format

The CSV file containing the device list must use the following format:

CSV Column	Value	Required	Notes
DeviceName	The MAC address or extension of the device	Yes	If you are using hard phones and IP Communicator in a Unified CM environment, use the following format when inserting the device name: SEP <mac> where <mac> is the MAC address for the device. If you are using Jabber or EM in a Unified CM environment, Quality Management supports Jabber beginning with CSF and EM profiles have no required naming convention.</mac></mac>

CSV Column	Value	Required	Notes
DeviceType	The type of device	No	If you do not include the type of device, Quality Management will insert standard device type associated with your telephony platform. The supported device types are as follows: • Phone—Quality Management will use the appropriate phone type for the telephony group type. The default recording types by ACD are as follows:
			Cisco: Server RecordingCS1000: CS1000
			 RemoteAgentPort—Only supported for Unified CM telephony groups. The default recording type is Server Recording.
			UserProfile—Only supported for Unified CM telephony groups. The default record- ing type is None.
Extensions	One or more extensions associated with the device	No	The extensions associated with the device.

CSV Column	Value	Required	Notes
TelephonyGroup	The name of the telephony group associated with the device	No	If you do not include the telephony group: Quality Management will insert the first telephony group found in the database. The update will fail for any device names that appear in multiple telephony groups.
DisplayID	The agent's display ID	No	When identifying an agent, Quality Management filters matching fields
Username	The agent's Windows username	No	in the following order: 1. Display ID
DomainName	The agent's Windows domain	No	Username (if no domain is provided); username and
LastName	The agent's last name	No	domain (if a domain is provided).
	Note: If you supply the first the first name, the last name is required. Likewise, if you supply the last name, the first name is required.		3. Last name and first name.
FirstName	The agent's first name	No	
MonitorServer	The Monitor Server for this device.	No	Only used for the Server Recording Type.
Recording Cluster	The name of the Recording Cluster	No	

CSV Column	Value	Required	Notes
RecordingType	The recording type for the device	No	If you do not include the recording type, Quality Management inserts Default for the device type. See Supported Recording Types for more information.

Managing VolP Devices

Before you configure VoIP devices, follow the steps as described in *Enabling VoIP Devices for Recording* to populate the list of VoIP Devices.

To manage VoIP devices:

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

When configuring a Monitor Server, note the following:

- The Recording Type must be Server Recording (SPAN)
- 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.
- Import a device list, click Import Devices, select the location, the file name of the device list, click OK, and then click Save.

- Export a device list, click Export Devices, select the location, type the file name of the device list, and then click OK.
- 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 remove one or more devices, select the devices from the list, click Remove From Configuration, click Yes, and then click Save.
- To assign multiple devices to a Recording Cluster, select the devices from the list, click Configure Recording Cluster, select the name of the Recording Cluster from the dropdown list, click OK, and then click Save.
- To assign the agent association for multiple devices, select the devices from the list, click Configure Agent, choose the agent association from the drop-down list, click OK, and then click Save.

You can only assign the following agents association to multiple devices.

Default Hoteling Agent—all recordings on the device will be associated with the
Default Hoteling Agent until another agent or knowledge worker logs into the
device.

Personnel

The Personnel node allows you to create groups and teams and assign roles, groups, teams, and licenses to users.

You can configure existing ACD users or create non-ACD users. If you are using Active Directory (AD) you can link AD users to ACD or non-ACD users.

User Roles and Privileges

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 Unified Workforce Optimization, the user can access all roles and privileges assigned to that user.

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.

Example: Managers have the ability to access archive recordings for their groups.

Quality Management defines a user's scope by roles and privileges. Scope refers to the data (such as recordings and evaluations) that a user can view.

Administrator

The administrator responsibilities are partitioned into the following hierarchical roles: system administrator, telephony administrator, and business administrator.

You can configure system administrators when you run postinstall.exe. Configuring system administrators is a two-step process:

1. Create users in Quality Management Administrator.

Note: If you are using Active Directory, the users must be assigned to the Admin Group. See the description of Admin Group in *Domain Information* for additional information.

Assign users to the system administrator role in Administrator Configuration under postinstall.exe.

Important: Once you assign the system administrator role to a user in a non-Active Directory environment, the default administrator user becomes obsolete and you can no longer log in as a default administrator.

The system administrator is primarily responsible for server configuration, IP changes, integration points, and passwords. The system administrator can configure telephony and business administrators.

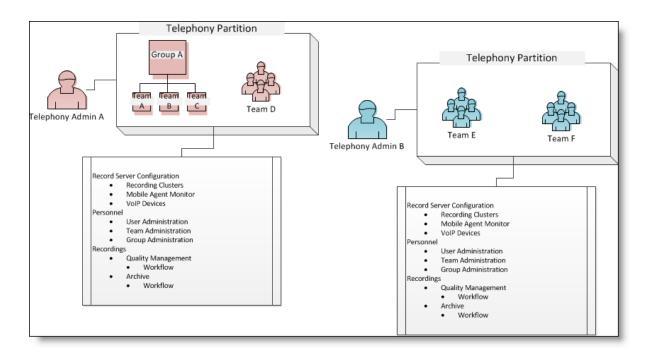
A telephony partition is a group and/or team to which a telephony administrator is assigned. If you want the telephony administrator to administer a specific set of groups or teams, you must assign the manager or supervisor role to the telephony administrator, and then assign the groups or teams.

Example: If you want a manager to be responsible for administering a specific group, assign the telephony administrator role to the manager.

The telephony administrator is primarily responsible for who is configured and/or recorded, the workflows, and the type of devices and recording methods used in the assigned groups and teams within the telephony partition. The telephony administrator can also determine who has the following privileges in Unified Workforce Optimization.

- Accessing recordings
- Evaluating recordings
- Reporting on recordings
- Exporting recordings

The telephony administrator can configure business administrators within the telephony partition.



The business partition is a group and/or team to which a business administrator is assigned. If you want the business administrator to administer a specific set of groups or teams, you must assign the manager or supervisor role to the business administrator, and then assign the groups or teams.

Example: If you want a supervisor to be responsible for creating and configuring evaluation forms and templates for assigned teams, assign the business administrator role to the supervisor.

The business administrator is primarily responsible for creating and configuring evaluation forms and templates for assigned groups and teams within the business administrator partition.

When managing administrators, consider the following points:

- In an Active Directory environment, the system, telephony, or business administrator must have an AD Account user associated with the Security Group security setting.
- In a non-Active Directory environment, the system administrator is created when you installed/upgraded Quality Management.
- Telephony and business administrators can be promoted to system administrators.
- System, telephony, and business administrators can log in to Quality Management Administrator.
- The system administrator does not require a license to log into Recording and Quality
 Management. However, a Recording and Quality Management license is required if you

want the system administrator to manage the Dashboard application in Unified Workforce Optimization.

The scope for each administrator role is shown in the following table.

Area	Window or fea- ture	System Admin- istrator	Telephony Administrator	Business Admin- istrator
System Con- figuration or	System Data- base	×		
postinstall.exe	Data Syn- chronization	×		
	Telephony Groups	X		
	Enterprise Set- tings	X	×	
	Gamification Metrics	X		
	Administrator Configuration	X		
	Site Settings	×		
	Recording Clusters	X		
	Mobile Agent Monitor	X		
	Inclusion List	×	×	
	Monitoring and Notification	x	x	
	Status	Х	Х	
Record Server Configuration	Mobile Agent Monitor	×	X	
	VoIP Devices	X	X	

Area	Window or fea- ture	System Admin- istrator	Telephony Administrator	Business Admin- istrator
Personnel	User Admin- istration	x	X	
	Team Admin- istration	x	X	
	Group Admin- istration	х	Х	
Recordings	Quality Management Workflows	X	X	
	Evaluation Forms	х	Х	х
	Templates	×	Х	X
	Forms	X	Х	Х
	Archive Work- flows	х	Х	
	Metadata	×	Х	
	Export	×	Х	
	Call Events Administration	х	Х	
	Recording Vis- ibility Admin- istration	X	X	
	Interface Configuration	X	X	

Area	Window or fea- ture	System Admin- istrator	Telephony Administrator	Business Admin- istrator
Unified Work- force Optim- ization	Dashboard: con- figuring dash- boards by role	Х		
	Dashboard: lock down dash- board	Х		
	Recordings	Х		
	Live Monitoring	Х		
	Recording Mon- itoring	Х	X	X
	Application Management	Х	X	X
	Reporting: Recording Access by User	Х	X	
	Reporting: Recording Access by Contact	X	Х	
	Reporting: User Recording Status	Х	Х	
	Reporting: System Status	Х	х	
	Reporting: Audit Trail	Х		

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 Unified Workforce Optimization and access their customer conversations.

Access all recordings marked as Training

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 scored evaluations
- Update their previously-scored 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
- Access customer conversations 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 scored 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
- Access customer conversations for their group

Evaluators

Depending on how the permissions were configured in the User Administration window, an evaluator has the following privileges:

- Evaluate conversations that occur within one of the following scopes:
 - All Teams—evaluators can evaluate any conversation, including their own conversation.
 - Scope Additions—evaluators can evaluate only conversations for teams within their scope, their own conversations, and the teams listed under Evaluator's Teams in the User Administration window. If there are no teams within the evaluator's scope or listed under Evaluator's Teams, the evaluator can only evaluate their own conversation.

Best Practices: To allow an agent or knowledge worker to perform self evaluations, assign the evaluator role and select Scope Additions from the Evaluator scope drop-down list in the User Administration window.

- Conversations can be either automatically assigned to an evaluator for evaluation or the evaluator can choose which conversation to evaluate next.
- Approve evaluations, if required
- Export recordings within their scope, if enabled
- Update their previously-scored evaluations
- Designate contacts for retention as Training or HR contacts

Assign the evaluator role to agents and knowledge workers if you want them to evaluate their own conversations.

Archive Users

Archive users can view all archived call contacts made by all active and inactive groups, teams, and agents. Archive users have the following privileges:

 Search and review customer conversations for all of the agents and knowledge workers across the enterprise

- Export customer conversations, if enabled
- Access customer conversations for deleted users

User Administration

The User Administration window allows you to assign roles, groups, teams, and licenses to users.

The User Administration window displays one of two versions, depending on whether or not you configure your system to interface with Microsoft Active Directory. See Active Directory Systems or Non-Active Directory Systems for more information.

Note: Whenever you modify a user in the ACD (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 **Getting Started** for more information).

The User Administration window has tabs that sort users into categories according to their roles and status within Quality Management. You can use Shift+click or Ctrl+click to select items in a tab's table and then copy and paste the results to other applications. When more than one user is selected, the User Properties panel and bulk modifications are disabled.

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 last name in Active Directory.
- ACD User. A user set up as an agent and/or supervisor and assigned to a team in the ACD. You can assign an ACD user to manager, evaluator, and archive user roles in Quality Management.
- Non-ACD User. A user created in Quality Management.

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

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.

The following table describes the buttons.

Tab	Description
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 user from the ACD 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 the ACD. Like ACD users, you must link non-ACD users to an Active Directory Account to be part of the Quality Management system.
License Users	Assign a user with a license. See <i>License/Unlicense Users</i> for more licensing information.
Delete User	Remove a non-ACD user. See <i>Deleting an ACD User</i> for information on deleting an ACD user.
Link User	Link the selected ACD user to an Active Directory account.
Add	Add an ACD team, QM team, or group to a list.
Remove	Delete an ACD team, QM team, or group from a list.
Save	Saves your changes.
Cancel	Cancels your current changes.

The following table describes the search fields. The search fields are disabled until you click the Search tab. Use one or more filters when running a search. A search with no filters returns all users.

The following filters can use the * wildcard at the beginning or end of a search string: Last Name, First Name, Windows Username, and Extension. If the search string does not contain an *, the results will display all results that contain the specified search string.

Tab	Description
Last Name	Filters the search by the user's last name.
First Name	Filters the search by the user's first name
Group	Filters the search by the name of the group.
Team	Filters the search by the name of the team.
Windows Username	Filters the search by the user's Windows user name,
Extension	Filters the search by the user's extension.

The following table describes the tabs.

Tab	Description
Linked Users	Active Directory users linked to an ACD or non-ACD users. This includes the administrator.
Managers	ACD and Non-ACD users assigned to the manager role.
Evaluators	ACD and Non-ACD users assigned to the evaluator role.
Archive Users	ACD and Non-ACD users assigned to the archive user role.
Supervisors	ACD users assigned to the supervisor role or non-ACD users assigned to the supervisor role.
Agents	Users assigned to the agent role in the ACD.
Knowledge Worker	Non-ACD users assigned to the knowledge worker role.
Unlinked ACD Users	ACD users who are not linked to an Active Directory user.
Unassigned Users	Non-ACD users not assigned to the manager, evaluator, knowledge worker, supervisor, or archive user roles. This tab only lists non-ACD users, because ACD users always have at least one role.

Tab	Description
Administrators	Users assigned to the administrator role.
Search	Users found by the search feature.

The following table describes the information that appears about the users on each tab.

Column	Description
License	The license assigned to the user. The possible licenses are:
	■ CR
	■ CRS+
	■ AQM
	■ AQMS+
	A user must be licensed to be able to log into Unified Workforce Optimization and be recorded.
Last Name	The user's last name, as set up in the ACD or Quality Management. The name appears as it is configured in Active Directory.
	For Active Directory authentication, the first and last names 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 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 in a Unified CCX environment, the format is <agent's pg="">.<agent's icm="" number="" peripheral="">.</agent's></agent's>
	If the user is a Quality Management user, the Quality Management system assigns a number.
Assigned Team	The team assigned to the agent or knowledge worker.
Assigned Group	The group assigned to the agent.
Windows Username	The user's Windows user name.

Column	Description	
Top Admin Role	The highest administrator role assigned to the user. Use the Admin Role drop-down list to assign the business or telephony administrator role to a user. The possible values are as follows: None—no administrator roles are assigned to the user. Business—assigns the business administrator role to the user.	
	Note: Only a system administrator or telephony administrator can assign the business administrator role to a user.	
	 System—indicates the user is a system administrator. 	
	Note: The Administrator Role drop-down list is disabled when the user is a system administrator. See <i>Administrator Configuration</i> for more information on assigning users to the system administrator role.	
	 Telephony—assigns the telephony administrator role to the user. 	
	Note: Only a system administrator can assign the telephony administrator role to a user.	
Extension	The extension associated with the Active Directory user.	
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 the following table.

Column	Description
License	The license assigned to the user.

Column	Description
First Name	The user's first name, as set up in the ACD or Quality Management.
Last Name	The user's last name, as set up in the ACD or Quality Management
Assigned Team	The team assigned to the agent or knowledge worker.
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="" number="" peripheral="">. If the user is a Quality Management user, the Quality Management system assigns a number.</agent's></agent's>
Windows Username	The user's Windows user name.
Domain	The user's Domain.
Evaluator Scope	 The evaluation scope assigned to the user. The scope defines who the evaluator can evaluate. The options are as follows: All Teams—evaluators can evaluate any conversation, including their own conversation. When this option is selected, Evaluator's Teams will be disabled. Scope Additions—evaluators can evaluate only conversations for teams within their scope, their own conversations, and the teams listed under Evaluator's Teams. If there are no teams within the evaluator can only evaluate their own conversation.
	Best Practices: To allow an agent or knowledge worker to perform self evaluations, assign the evaluator role and select Scope Additions from the Evaluator scope drop-down list.
	This field is enabled when the Evaluator check box is selected.

Column	Description	
User Time Zone	The time zone in which the user resides. The drop-down list shows Coordinated Universal Time (UTC) time zone codes.	
	The time listed in contacts reflects the time zone selected in this field.	
	Example: For agents in Chicago, select [-0600/-500] America/Chicago.	
Roles	The roles assigned to the user. The available check boxes are as follows:	
	 Agent–available for ACD users only and disabled by default. 	
	 Knowledge Worker—available for non-ACD users only. 	
	 Supervisors—disabled by default for ACD users. 	
	■ Evaluator	
	■ Manager	
	■ Archive User	
Administrator	The administrator roles assigned to the user. The available check boxes are as follows:	
	■ Business	
	■ Telephony	
	 System—indicates the user is a system administrator. This check box is disabled by default. See Administrator Con- figuration for more information on configuring system administrators. 	
Supervisor's ACD Teams	Lists the ACD teams assigned to the supervisor in a Unified CCX environment.	
Supervisor's QM Teams	Lists the QM teams assigned to the supervisor.	
Evaluator's Teams	Lists the teams assigned to the evaluator.	
Manager's Groups	Lists the groups assigned to the manager.	

To link ACD users to Active Directory accounts when you initially set up Quality Management:

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

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

You can select one or more user paths from this list. You can select one or more user paths from this list.

4. Click Find.

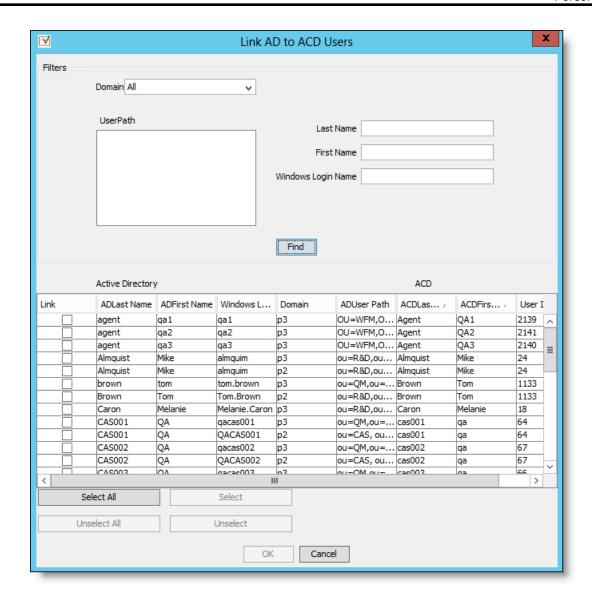
The users who exactly match the search query appear in the list. The first five columns display information from Active Directory. The last three columns display information from the ACD.

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

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.

The following figure displays selected users in the Link Active Directory to ACD Users dialog box.



The ACD users that you linked to Active Directory accounts appear on the Linked Users tab.

To link an ACD user to an Active Directory account:

- 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.

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).

Important: If the Active Directory account you are trying to link to an ACD user is already assigned to the system administrator role, the following message appears:

AD user <Doe, John> is already designated as a QM user. Delete user <Doe, John> first.

Delete the user as instructed (see *User Administration*), create a new non-ACD user (see Creating a non-ACD User using Active Directory or Creating a Non-ACD User without Active Directory) and then reassign the system administrator role to the user (see Managing Administrators).

In a non-Active Directory environment, you must ensure that there is a replacement non-Active Directory user assigned to the system administrator role because the default administrator role in a non-Active Directory environment is no longer available the moment you assign a user to the system administrator role in *Administrator Configuration*.

- 3. Optional: Select the Active Directory domain that your users are in from the Domain dropdown list.
- 4. Optional: 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 Username

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

6. Click Find.

The users who match the search query appear 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.

The user you just linked now appears under the Linked Users tab.

To create a non-ACD user:

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

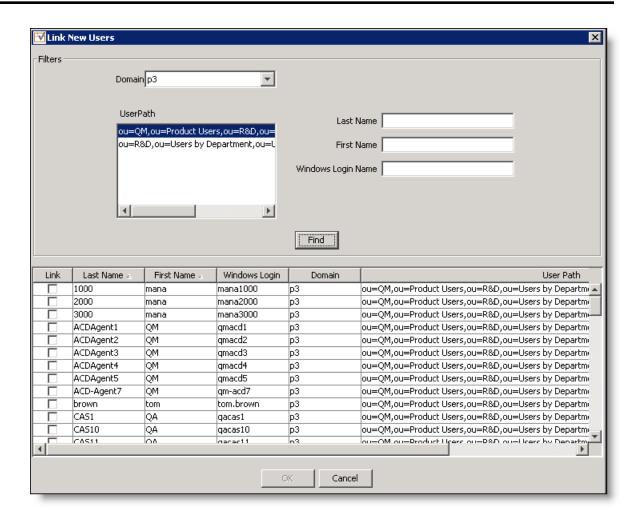
The Link New Users dialog box appears.

- 2. Optional: Select the Active Directory domain that your user is in from the Domain drop-down list.
- 3. Optional: 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 Username

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

5. Click Find.

The users who match the search query appear in the list.



6. Select the specific Active Directory account that you want to link, and then click OK.

The non-ACD user you created appears in the Linked Users tab.

To assign Quality Management user roles to an ACD user:

Select the ACD user from the Linked Users tab in the User Administration window.

The user's properties appear in the User Properties section of the window.

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

You cannot assign the agent role to an ACD user from Quality Management Administrator. You can only assign agent and supervisor roles in.

You cannot assign the supervisor role to an ACD user from Quality Management Administrator. You can only assign supervisor role in Unified CCX.

Note: To assign the system administrator role to a user, see *Administrator Configuration*.

- 3. If the user is assigned to the supervisor, evaluator, or manager role, assign the teams or groups to the user and click Add.
- 4. 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 the ACD. You can assign an ACD user to manager, evaluator, and archive user roles in Quality Management.

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.

Note: An ACD user is not a part of Quality Management system until you configure the ACD user in Quality Management Administrator.

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

A non-ACD user exists only in Quality Management. The non-ACD user does not exist in the ACD. A non-ACD user can be an evaluator, manager, supervisor, knowledge worker, and/or archive user, but not an agent.

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

The following table describes the buttons.

Tab	Description
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 the ACD. You must link non-ACD users to an Active Directory Account to be part of the Quality Management system.
License Users	Assign a user with a license. See <i>License/Unlicense Users</i> for more licensing information.

Tab	Description
Delete User	Remove a non-ACD user. See <i>Deleting an ACD User</i> for information on deleting an ACD user.
Edit User	Configure the user properties.
Add	Add an ACD team, QM team, or group to a list.
Remove	Delete an ACD team, QM team, or group from a list.
Save	Saves your changes.
Cancel	Cancels your current changes.

The following table describes the tabs.

Tab	Description
Configured Users	All non-ACD users who have been set up in Quality Management. This includes the administrator.
Managers	Non-ACD users assigned to the manager role.
Evaluators	Non-ACD users assigned to the evaluator role.
Archive Users	Non-ACD users assigned to the archive user role.
Supervisors	Non-ACD users assigned to the supervisor role.
Agents	Non-ACD users assigned to the agent role in the ACD.
Knowledge Worker	Non-ACD users assigned to the knowledge worker role.
Not Configured Users	Non-ACD users who have not yet been set up in Quality Management.
Unassigned Users	Non-ACD users not assigned to the manager, evaluator, knowledge worker, supervisor, or archive user roles.
Administrators	Users assigned to the administrator role.
Search	Users found by the search feature.

Each tab displays information about the users that fall into its category, as shown in the following table.

Column	Description	
License	The license assigned to the user. The possible licenses are:	
	■ CR	
	■ AQM	
	A user must be licensed to be able to log into Unified Workforce Optimization and be recorded.	
Last Name	The user's last name, as set up in the 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.	
First Name	The user's first name, as set up in the ACD or Quality Management.	
User ID	The user ID assigned to the user.	
	If the user is an ACD user in a Unified CCX environment, the format is <agent's pg="">.<agent's icm="" number="" peripheral="">.</agent's></agent's>	
	If the user is a Quality Management user, the Quality Management system assigns a number.	
Assigned Teams	The team assigned to the agent or knowledge worker.	
Assigned Groups	The group assigned to the agent.	
Windows Username	The user's Windows user name.	

Column	Description
Top Admin Role	The highest administrator role assigned to the user. Use the Admin Role drop-down list to assign the business or telephony administrator role to a user. The possible values are as follows: None—no administrator roles are assigned to the user. Business—assigns the business administrator role to the user.
	Note: Only a system administrator or telephony administrator can assign the business administrator role to a user.
	System—indicates the user is a system administrator.
	Note: The Administrator Role drop-down list is disabled when the user is a system administrator. See <i>Administrator Configuration</i> for more information on assigning users to the system administrator role.
	Telephony—assigns the telephony administrator role to the user.
	Note: Only a system administrator can assign the telephony administrator role to a 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 the following table.

Column	Description
License	The license assigned to the user.
First Name	The user's first name, as set up in the ACD or Quality Management.
Last Name	The user's last name, as set up in the ACD or Quality Management.

Column	Description	
Assigned Team	The team assigned to the agent or knowledge worker.	
	Note: The Assigned Team drop-down list only displays teams containing knowledge workers.	
User ID	The user ID assigned to the user. Quality Management assigns a number to the user ID.	
Windows Username	The user's Windows user name.	
Domain	The domain assigned to the user.	
Evaluator Scope	The evaluation scope assigned to the user. The scope defines who the evaluator can evaluate. The options are as follows:	
	 All Teams—evaluators can evaluate any conversation, including their own conversation. When this option is selected, Evaluator's Teams will be disabled. 	
	 Scope Additions—evaluators can evaluate only conversations for teams within their scope, their own conversations, and the teams listed under Evaluator's Teams. If there are no teams within the evaluator's scope or listed under Evaluator's Teams, the evaluator can only evaluate their own conversation. 	
	Best Practices: To allow an agent or knowledge worker to perform self evaluations, assign the evaluator role and select Scope Additions from the Evaluator scope drop-down list.	
	This field is enabled when the Evaluator check box is selected.	
Auto Assign Evaluations	When selected, a new evaluation is automatically assigned to an evaluator when the evaluator finishes the evaluation and chooses Complete and Get Next Evaluation or goes to the Recordings Evaluation Queue in the Recordings application. When cleared, evaluators can choose which conversation to evaluate next. This field is enabled when the Evaluator check box is selected.	

Column	Description	
Roles	The roles assigned to the user. The available check boxes are as follows:	
	 Agent–available for ACD users only and disabled by default. 	
	■ Knowledge Worker—available for non-ACD users only.	
	 Supervisors—disabled by default for ACD users. 	
	■ Evaluator	
	■ Manager	
	■ Archive User	
Administrator	The administrator roles assigned to the user. The available check boxes are as follows:	
	■ Business	
	■ Telephony	
	 System—indicates the user is a system administrator. This check box is disabled by default. See Administrator Con- figuration for more information on configuring system administrators. 	
Supervisor's ACD Teams	Lists the ACD teams assigned to the supervisor in a Unified CCX environment.	
Supervisor's QM Teams	Lists the QM teams assigned to the supervisor.	
Evaluator's Teams	Lists the teams assigned to the evaluator.	
Manager's Groups	Lists the groups assigned to the manager.	

To configure the ACD user for Quality Management:

- 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 Username and Quality Management Password.

The Windows user 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. (Optional) Select a desired role from the Administrator Role drop-down list.
- 4. (Optional) Select the desired scope from the Evaluator Scope drop-down list.
- 5. 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 in a CCX environment, 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.

6. Click Save.

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.

To create a non-ACD user:

1. Click Create User.

The Create User dialog box appears.

2. Complete the fields, and then click OK.

The Windows user name must be unique, but users can have the same first and last names.

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 Username) 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.

To assign roles to a non-ACD user:

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

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 dropdown 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.

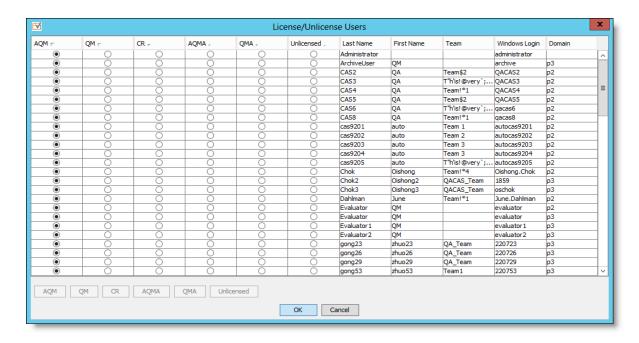
Note: To assign the system administrator role to a user, see *Administrator Configuration*.

- 3. If the user is assigned to the supervisor, evaluator, or manager role, assign the teams or groups to the user and click Add.
- 4. Click Save.

License/Unlicense Users

The License/Unlicense Users dialog box 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.



Users must be licensed to log into Unified 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 the users are licensed or unlicensed.

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*.

To change a user's license status:

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

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 lists of users.
- 3. Select the license type you want to assign to the selected users and click OK. The possible recording types are:

- AQM
- AQMS+
- CR
- CRS+
- Unlicensed—removes a license from a user.

The license is assigned to the users. The users can log into Unified 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 an ACD User

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

Deleting a Non-ACD User

To assign roles to a non-ACD user:

- 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.

A dialog box asks you to confirm that you want to delete the selected non-ACD user.

4. Click Yes.

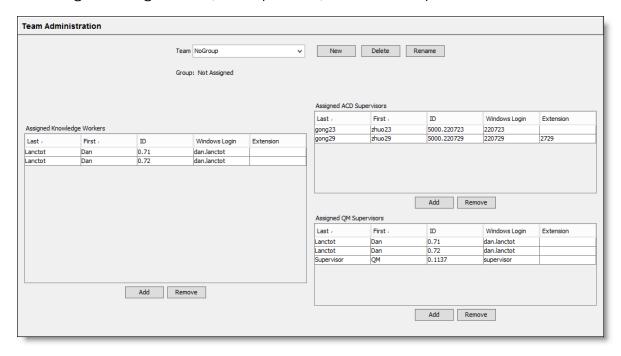
The non-ACD user is deleted.

Team Administration

The Team Administration window enables you to:

- View the agents, supervisors, and group 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.



Assign agents and ACD supervisors to teams in Unified CCX. You cannot change team assignments in Quality Management Administrator.

You cannot assign knowledge workers to the same team as agents. Knowledge workers must belong to a non-ACD team made up only of knowledge workers.

You can assign non-ACD supervisors to an ACD team and ACD supervisors to a non-ACD team.

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

Managing Teams

To manage teams:

- To configure an ACD team in a Unified CCX environment, choose an ACD team from the Team drop-down list, add or remove QM supervisors, and then click Save.
 - 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. Click Add under the each role and select the desired names from the list, and then clicking OK. When the new team is complete, click Save.

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. under the each role and select the desired names from the list, and then clicking OK. When the update is complete, click Save.

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, click Remove underneath the section, and then click OK.
- To rename a team, select the team you want 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 want to delete from the Team drop-down list, click
 Delete, and then click Yes

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.

To delete a team, select the team you want to delete from the Team drop-down list, click
 Delete, and then click Yes

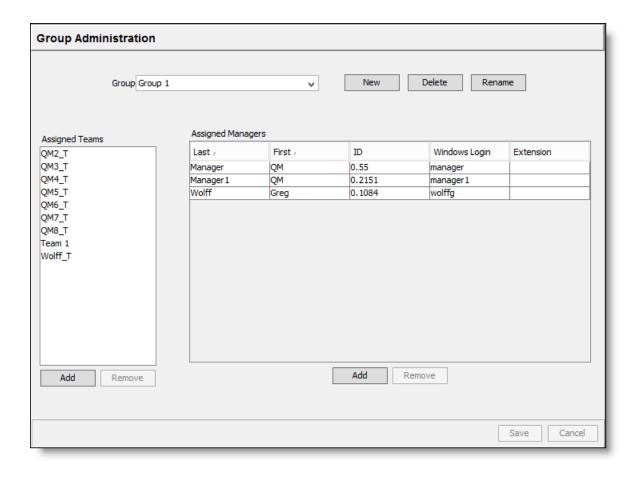
Remove the team from the quality management workflow before you delete the team.

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, you can:

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



To manage groups:

■ 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.

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.

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 want 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 want to delete from the Group drop-down list, click Delete, and then click Yes

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 allows you to configure when a customer conversation is recorded.

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 teams to a workflow. 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 voice or screen recordings that are longer than 12 hours. If you think a call will last longer than 12 hours, you need to stop recording the call before the call reaches the 12 hour mark, and then start a new recording.

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.

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).

Use the Recordings node to:

- Configure recording retention periods for a workflow
- Create quality management workflows for a team
- Create and maintain evaluation forms

- Create archive workflows for a team
- Configure and manage user-defined metadata
- Configure thresholds for talkover and silence events in the Unified CCX environment

8-bit and 16-bit QM Recording

QM initially creates 16-bit recordings, but when the customer selects WAW-8 format recordings option, it converts the 16-bit linear PCM data to 8-bit linear PCM. This process removed data from the recording, and in cases where the audio volume was low, it could produce 8-bit audio that contained static or a background hiss.

QM changes the internal definition of 8-bit to be WAV files containing u-Law compressed audio. This stores the samples as 8-bit values without losing any information from the audio.

The following modules, processes, and services need to call the appropriate functions in the ASP library to convert a u-Law WAV file to a 16-bit PCM WAV file if required for their processing of the audio data:

- Media Encoder service
- Silence/talkover processing
- Phonetic speech processing module
- LVCSR processing

If customers record to 8-bit WAV files and upgrade to anything less than 9.3 SR3 ES4, 9.4 SR3 or 9.5 SR2 ES1, they will not be able to play back recordings.

Cisco MediaSense Recording Considerations

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.

Example: If an agent places a call on hold, two contacts are created that will be evaluated individually for a workflow. In this instance, 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 Cisco MediaSense Recording might result in one of multiple contacts (sessions) being uploaded. It is also 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 Unified Workforce Optimization.

Recording Retention

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

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.

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.

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 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.

Time	Data	Applications in Unified Workforce Optimization where you can access the data
For 6 months	Screen recording	Recordings
For 10 years	Audio recording	Recordings
For 13 months	Metadata	Recordings

- A quality management workflow retention period is assigned at the End of Day (EOD).
- 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: Remember that reducing a retention period after it has been initially set 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 retain the last known retention times for the deleted workflow.

Quality management contacts are retained according to the limits shown in the following table.

Note: For retention purposes, 1 month = 30 days, and 1 year = 365 days.

Recording Type	Retention Period
Scored	1 day-unlimited (default = 30 days)
Unscored	1 day—unlimited (default = 30 days)
HR	1 day—unlimited (default = 6 months)
Training	1 day—unlimited (default = 6 months)
Tagged	1 day—unlimited (default = 120 months)
Metadata	13 months
	Note: You cannot change the recording retention period for metadata.

Archive workflow contacts are retained according to the limits shown in following table.

Recording Type	Retention Period
Archive (audio recordings only)	1 month–Unlimited (default = 84 months)
Tagged	1 month–Unlimited (default = 120 months)
Contact Information	13 months minimum in both the Dashboard and Reporting applications

Customizable Retention Rules

You can assign a different retention period for contacts with specific custom metadata and from one or more specific geographic areas, based on the contact's area code (ANI/DNIS). The retention period you set can be different than that for the user's regular workflow.

Note: The customized retention policies you set are given the highest retention rule priority; previously set retention rules could be overridden by custom retention policies.

For more information, refer to Retention Rules.

About Workflows

A workflow allows you to specify rules and classifiers to designate the types of contacts you want to record. There are two types of workflows:

- quality management workflow—specifies the types of calls you want to save for quality management recordings
- archive workflow—specifies the types of calls you want to save for archive recordings

Changes to a workflow take effect immediately.

The following list describes when workflow processing occurs:

 Beginning of Call (BOC)—this occurs when Voice Recording services get a message that recording has started.

Note: This does not occur for screen recordings or Cisco MediaSense Recordings. They only insert contacts after the recording is complete (EOC).

- End of Call (EOC)—this occurs when the Voice Recording services are complete and the recording has been converted, and the duration and derived metadata has been discovered.
- Non-Call Evaluation—this occurs when a user creates a non-call evaluation from the Recordings application in Unified Workforce Optimization.
- Metadata Reconciliation—this occurs when metadata is sent to the Server API to assign metadata to a contact.
- Quality Workflow Processing—This occurs after EOD for each configured quality workflow.

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)

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.

Quality Management Workflows

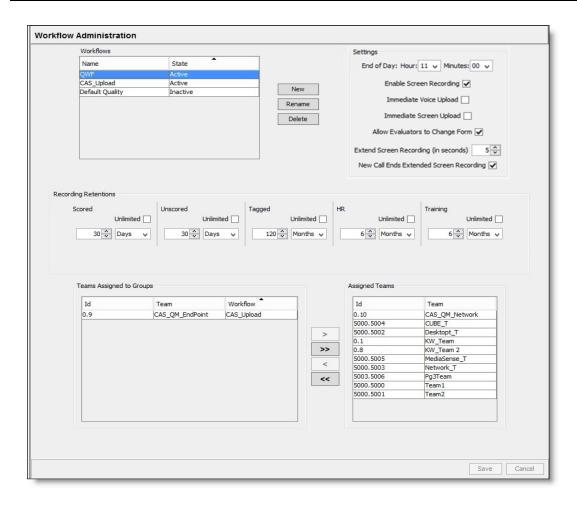
This topic describes the Workflow Administration window and provides tasks to create and maintain quality management workflows.

Note: Quality Management workflows are only available if you have quality management licenses.

When a non-contact call is created or an Archive contact is marked for quality in 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 contacts. 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 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.



Field	Description
Workflows	Lists the existing 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 active archive workflow from the list.
Name	The name of the quality management workflow.

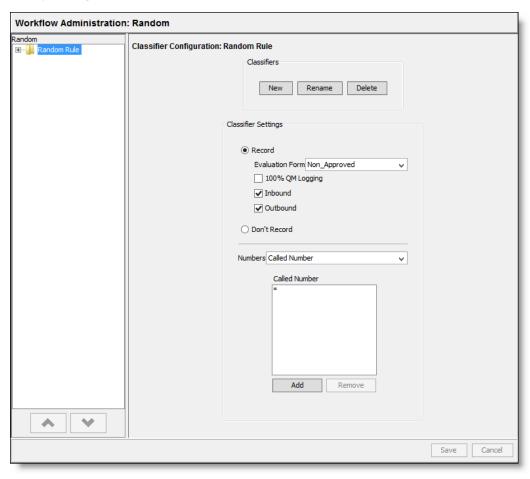
Field	Description
State	The status of the workflow. The Possible states are as follows:
	 Active—The entire workflow can be modified.
	Inactive—The modifiable parts of the workflow are limited to the fields under Settings and Recording Retentions. An inactive workflow is a default workflow that is not associated with any agent. That is, the columns (Agent, Team, and so on) remain blank in the search results.
End of Day	The workflow is uploaded at the end of the selected day. Recording still continues, but those recordings are uploaded after the next EOD. Enter the time for the end of the work day in 24-hour format.
	If the EOD is changed, the new EOD goes into effect immediately and the Data API service will process calls using the new EOD time. If the EOD changes after the Upload Controller gets the original EOD, the Upload controller might wait to upload recordings until after the original EOD time has passed.
Enable Screen Recording	When this check box is selected, screen recording is enabled on the agents' desktops and the Recording Controls application. When the check box is clear, screen recording is disabled on the agents' desktops and the Recording Controls application.
Immediate Voice Upload	When this check box is selected, audio recordings 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. This option applies to all recording types.
	If you change the Immediate Voice Upload option during the day, the change does not go into effect until the quality management workflow is reloaded after the End of Day.
	For Desktop Recording, it is possible that audio recordings waiting for upload can be lost if an agent's PC crashes. Enabling immediate uploading prevents this problem.
	If you enabled two stage upload, audio recordings are uploaded immediately using the two stage upload process.

Field	Description
Immediate Screen Upload	When this check box is selected, screen recordings 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. This option applies to all recording types.
	If you change the Immediate Screen Upload option during the day, the change does not go into effect until the quality management workflow is reloaded after the End of Day.
	For Desktop Recording, it is possible that screen recordings waiting for upload can be lost if an agent's PC crashes. Enabling immediate uploading prevents this problem.
	If you enabled two stage upload, screen recordings are uploaded immediately using the two stage upload process.
	Note: In some cases, screen recordings in a Gateway Recording environment configured for immediate upload might take up to 10 minutes after the associated call is reconciled to begin uploading. To avoid this delay and ensure that screen recordings are uploaded immediately after they complete, enable two stage upload in Site Settings.
Allow Evaluators to Change Form	Choose this option if you want to allow evaluators to select the evaluation form they want to use.
Extend Screen Recording (in seconds)	The number of seconds screen recording continues to record after-call work after a call is dropped.
	When you enter a value in this field, after call work screen recording continues when a new call starts. This can consume storage resources.
New Call Ends Extended Screen Recording	When a value is entered in Extend Screen Recording , you can choose this option to automatically end the first call's screen recording when a new call starts.
Recording Retentions	Set the length of time you want the various types of recordings to be retained.
Teams Assigned to Groups	Teams assigned to groups appear in this list.

Field	Description
Assigned Teams	Teams assigned to this quality management workflow appear in this list. A team can belong to only one quality management workflow at a time.

Classifier Configuration

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



Field/Option	Description
Evaluation Form	Select the form you want to use to evaluate the recorded calls.

Field/Option	Description
Record	Select this option to record calls, and then choose from the following options:
	■ 100% Recording Logging
	■ Inbound
	■ Outbound
100% QM Logging	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 for more information.
Inbound and/or Outbound	Select which calls to be recorded—inbound, outbound, or both. You must select at least one call direction.
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 two 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.

Field/Option	Description
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 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
	Example: 6125551212
	 Number ranges using wildcards
	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

You must assign a team to a 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.

To create a new quality management workflow:

- In the navigation tree, select Recordings > Quality Management > Workflows
 The Workflow Administration window appears.
- 2. Next to the Workflows section, click New.

The Workflow Name dialog box appears.

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

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.

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.

- Select Immediate Voice Upload if you want to upload an audio recording immediately after the recording is completed.
- 7. Select Immediate Screen Upload if you want to upload an audio recording immediately after the recording is completed.
- 8. Select the Allow Evaluators to Change Form check box if you want to allow evaluators to choose the evaluation form they want to use.
- 9. Specify the time, in seconds, the screen recording should continue after the call ends.
- 10. Set the length of time you want the various types of recordings to be retained

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.

11. Assign teams to the quality management workflow.

A team can belong to only one quality management workflow at a time. If a team that you want to assign to this quality management workflow already belongs to another quality management workflow, it will automatically be reassigned to this quality management workflow. Quality Management Administrator displays a warning message telling you that it reassigned the team from another quality management workflow.

- 12. Assign teams to the quality management workflow.
- 13. When you finish configuring the quality management workflow in this window, click Save.

Setting up Classifiers for a Quality Management Workflow

To set up classifiers for a quality management workflow:

- Under the Quality Management > Workflows node, select the workflow you just created
 The Classifier Configuration: <workflow name > window appears.
- 2. In the Classifiers section, click New to create a new classifier.
 - The Classifier Name dialog box appears.
- 3. Enter a name for your new classifier, and then click OK.
 - 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.

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 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

Quality Management Administrator enables action settings by default.

To configure actions for ringing, answered, and dropped events:

- Under Ringing Event, choose Actions and select the Screen Recording Upload check box if you want to upload screen recordings after the call ends.
 - Screen Recording Upload is not available at the CR or QM license level.
- 2. Under Answered event, choose Actions, and select the Start Voice Recording check box if you want to start voice recording when the call is answered.
- 3. Under Dropped Event, choose Actions and select the Stop Voice Recording check box if you want to stop audio recording when a call is dropped:
- 4. Click Save to save the action settings.

Modifying a Quality Management Workflow

To modify a quality management workflow:

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

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.

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.

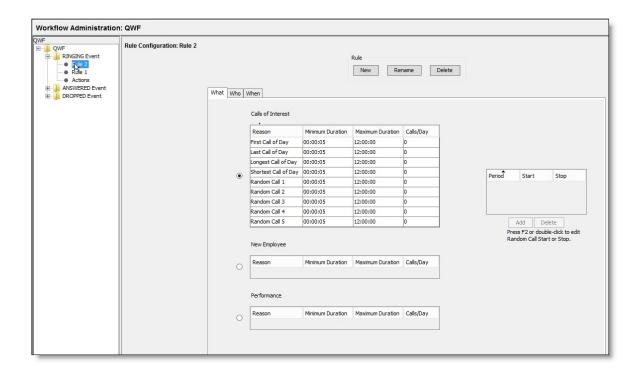
Setting up Rules for a Classifier's Ringing Event

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.

To set up rules for a classifier's ringing event:

- In the workflow navigation tree, under the classifier, select Ringing Event.
 - The Rule Configuration window appears.
- 2. Click New to add a new rule.
 - The Rule Name dialog box appears.
- 3. Enter a name for the new rule, and then click OK.
 - Quality Management Administrator adds the new rule to the workflow navigation tree underneath the Ringing event and the What, Who, and When tabs appear (see the following figure).



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.

Note: You can configure up to five random call rules, as well as the minimum and maximum call duration.

5. Click the Who tab.

The Who tab on the Rule Configuration window appears.

- 6. Select 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.

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 calls associated with the workflow or reactivate the 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.

To delete a quality management workflow:

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

The Workflow Administration window appears.

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

The Confirm Deletion dialog box appears.

3. Click Yes to confirm the deletion

Quality Management Administrator deletes the quality management workflow and the status of the workflow changes to Inactive. 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.

Best Practices for Agent Evaluations

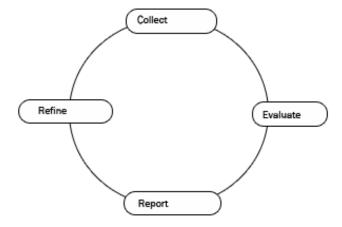
This section describes best practices for agent evaluations using Quality Management.

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 experience. 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.



The quality management training process requires you to:

- 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

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.

Quality Management:

- Eliminates time sifting through irrelevant calls—using workflows allows you to eliminates 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.

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.

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).

Example: Your contact center's business goals could be to increase revenue, improve customer satisfaction, or reduce overall cost.

A KPI can have a positive or negative impact on your contact center's business goals.

Example: If an agent turned an unhappy customer into a happy customer, the agent had a positive impact on the your contact center's business goals. If another agent lost a potential sale, that would have a negative impact on your contact center's business goals.

When you know what your business goals are you can incorporate those goals as answers to questions in the evaluation form and assign KPIs to those questions. 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.

Evaluation Goal Administration

The Evaluation Goal Administration window allows you to assign goals to evaluators.

Note: Evaluation Goal Administration is directly related to Auto Assign Evaluations. Use Evaluation Goal Administration to determine how many evaluations to automatically assign to an evaluator.

The Evaluation Goal Administration window displays the following information.

Field	Description
Goal	The goal's ID.
Name	The name of the goal.
Action	The required action of the goal. The options are as follows:
	Calibrate. Calibrate these contacts.
	■ Evaluate. Evaluate these contacts.
	 Review. Listen to all or a specified percentage of the contacts.

Field	Description
Status	The current status of goal. The options are as follows:
	 Editable. The goal can be modified, renamed, and deleted. It is not yet available for evaluators to use.
	 Active. The goal is available for evaluators. Only the assigned evaluators can be modified. An active goal can- not be deleted.
	Inactive. The goal is no longer available for use by evaluators. It will be deleted automatically as soon as all goals based on it are removed from the database.
Add	Create a new goal. See <i>Managing Evaluation Goals</i> for more information.
Rename	Rename a selected goal.
Edit	Modify a selected goal.
Сору	Copy a selected goal.
Last Name	The evaluator's last name.
First Name	The evaluator's first name.
ID	The evaluator's ID.
Windows Username	The evaluator's Windows user name.
Goals Assigned	The goals assigned to the evaluator. Assigned goals can be active and editable. Only active goals are actually used.

Managing Evaluation Goals

To add an evaluation goal:

- 1. Click Add.
- 2. Enter the name for the goal and then click OK.
- 3. Complete the fields in the Add/Edit Goal Information dialog box. The fields are described in the table below.
- 4. Click Add to save the evaluation goal.

To rename an evaluation goal:

- 1. Select a goal under Goals and click Rename.
- 2. Enter a new name for the goal, and then click OK.

To modify an evaluation goal:

- 1. Select a goal under Goals and click Edit.
- 2. Complete the fields in the Add/Edit Goal Information dialog box. The fields are described in the table below.
- 3. Click Update to save the evaluation goal.

To copy an evaluation goal:

- 1. Select a goal under Goals and click Copy.
- 2. Enter the new name for the copied evaluation goal, and then click OK.

Field	Description
Add/Edit Goal Information	

Field	Description
Goal	Enter the number of evaluations to perform in the first field and choose an option from each of the following lists:
	Choose one of the following evaluation types:
	Call evaluations—When selected, the goal applies to call evaluations.
	 Text evaluations—When selected, the goal applies to text evaluations.
	 Email evaluations—When selected, the goal applies to email evaluations.
	■ Choose one of the following options:
	 Agent—When selected, indicates that the number of evaluations to perform is per agent.
	 Team—When selected, indicates that the number of evaluations to perform is per team.
	Choose how frequently these evaluations have to be performed. Your options are as follows:
	 Day–00:00.00.00 to 23:59:59.5999
	 Week–Monday 00:00 to Sunday 23:59
	 Month–first day of month (1) 00:00 to last day of month (28, 29, 30, 31) 23:59:59
	Specific Date—Select a day to perform evaluations
	Date Range—Use the Effective and Contact ranges to specify the dates to perform evaluations

Field	Description
Classifiers	Evaluation goal classifiers are a hierarchical ordering of items that determine what type of contacts to assign for this goal. Classifiers can be added, sorted, edited, and removed.
	When you add a new classifier, the classifier is based on the evaluation type assigned to the goal. The possible evaluation types are: call evaluations, email evaluations, and text evaluations. Each type of evaluation will have different types of classifiers that can be assigned to the evaluation goal.
	Example: If you choose the Quality Reason classifier option for a call evaluation type, the available Quality Reason options are based on the quality reason code setup in the quality workflow panel.
	If you specify multiple classifiers, classifiers are processed in the order they are listed (from top to bottom). Use the up and down arrow keys to the right of the classifiers to sort the classifiers.
	The following algorithm is used to assign evaluations to evaluators who are configured as Auto Assign Evaluators. If no goals are assigned to them, then a random contact within their scope will be assigned. If goals are assigned to them, an unfilled goal will be chosen in round-robin fashion from their list of incomplete goals. A list of potential teams/agents that have not satisfied the goal will be created. An agent/team will be selected randomly from this list. The classifier at the top of the list will be used first to find a contact to assign to an evaluation goal. If no contact matches the first classifier, the next classifier will be used to find a contact, and so on. If no contact matches any of the classifiers in the list, then another team/agent from the list will be chosen at random, and the classifiers will be evaluated in order for that contact. If no contact can be found to evaluate for the list of agent/teams for that goal, no contact will be assigned for that evaluation goal. If an evaluator has more than one goal assigned, then the next goal will be processed. If no contacts meet the defined classifiers for any goals, no contacts will be assigned to the evaluator at that time.
	Best Practices: Specify Any Call, Any Email, or Any Text as the final classifier. These classifiers choose a random contact that is in the evaluator's scope that meets the

Field	Description
	definition of the goal. This ensures the highest chance to find a contact to assign to that evaluator if the other classifiers cannot be met.
Add	Add a classifier
Remove	Delete a selected classifier.
Edit	Modify a selected classifier.
Evaluators	Lists the available evaluators.
Assigned Evaluators	Lists the assigned evaluators.
Effective Range	These fields define the dates the goals are active.
	■ This goal is in effect as soon as it is active
	 This goal is only in effect during these specified dates
Start Date	Date the goal becomes active. The default start effective range date is the first day of the next month.
Stop Date	Date the goal stops being active. The default stop effective range date is the last day of the next month.
Contact Range	These fields define the contacts to which the goals are applied.
	■ This goal selects contacts from any available date
	■ This goal selects contacts from these specified dates
Start Date	Date the goal begins selecting contacts. The default start contact range date is the first day of the current month.
Stop Date	Date the goal stops selecting contacts. The default stop contact range date is the last day of the current month.
Editable	The goal can be modified, renamed, and deleted. It is not yet available for evaluators to use.
Active	The goal is available for evaluators. Only the assigned evaluators can be modified. An active goal cannot be deleted.
Inactive	The goal is no longer available for use by evaluators. It will be deleted automatically as soon as all goals based on it are removed from the database.

Field	Description
Add/Edit Classifier Information	

Field	Description
Options	The options are based on evaluation type. The possible options are as follows:
	Call evaluations:
	Quality Reason—select one of the following quality workflow reasons:
	First Call of Day
	 Longest Call of Day
	Random Call
	Performance
	Marked for Quality
	Last Call of Day
	Shortest Call of Day
	New Employee
	• 100% Logging
	 Call Length less than—specify the maximum length of the call in HH:MM:SS.
	 Call length greater than—specify the minimum length of the call in HH:MM:SS.
	 Has metadata key-choose the metadata key associated with the call.
	Has metadata key with value—choose the metadata associated with the call and specify the value associated with the metadata.
	 Any Call—automatically choose a random contact that is in the evaluator's scope that meets the definition of the goal.
	Text evaluations:
	 To—specify the address for the person who received the text.
	■ From—specify the address for the person who sent the

Field	Description
	text
	 Has metadata key-choose the metadata key associated with the text.
	 Has metadata key with value—choose the metadata asso- ciated with the text and specify the value associated with the metadata.
	 Any Text—automatically choose a random text that is in the evaluator's scope that meets the definition of the goal.
	Email evaluations:
	 To—specify the email address for the person who received the email.
	 From—specify the email address for the person who sent the email
	 Has metadata key-choose the metadata key associated with the email.
	 Has metadata key with value—choose the metadata associated with the email and specify the value associated with the metadata.
	 Any Text—automatically choose a random email that is in the evaluator's scope that meets the definition of the goal.

Guidelines for Evaluation Forms

Consider the following when you create an evaluation form:

■ Identify the activity type you want to evaluate, and create an evaluation form for that specific contact.

Example: Call recording, live monitor of voice or screen, counter work, chat, or other social media

This allows Quality Management to accurately report non-call activities in the Dashboard and Reporting applications.

Clearly outline factors to rate performance.

Example: How does the agent perform when greeting a customer, handling an application, empathizing with a caller, using tools during order entry, or closing a call? You can rate an agent's performance for each action.

- 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 implements new initiatives.

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.

- When using percentage-based scoring, apply weighting and scoring where relevant.
- Identify key points of "failure." If the question 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.

- Avoid long or complex questions, and do not include questions within a question.
 - Limit the scope of a question to a single measurable event.

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 or no answer whenever possible.
 - Yes or no questions provide clear and concise answers.
 - Yes or no questions require less documentation and collaboration efforts to get consistent evaluation measurements. These types of answers are less subjective.

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.

Example: You could create three sections named Greeting, Order Entry, and Closing.

- When using percentage-based scoring, indicate the relative importance of questions and sections by assigning them different weights.
- Use up to 50 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 Forms

Note: Evaluation forms are only available if you have quality management licenses.

The Evaluation Forms node allows 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 the read-only templates that come with Quality Management Administrator.

When you create a new evaluation form, you specify one of the following evaluation types:

PERCENTAGE-BASED SCORING (PERCENTAGE)

The evaluation is scored based on a percentage. Sections and Questions are weighted (0-100%) and the final score is a percentage.

Example: If an agent scores 4 out of 5 questions correctly and the questions are evenly weighted, the agent's final score is 80%.

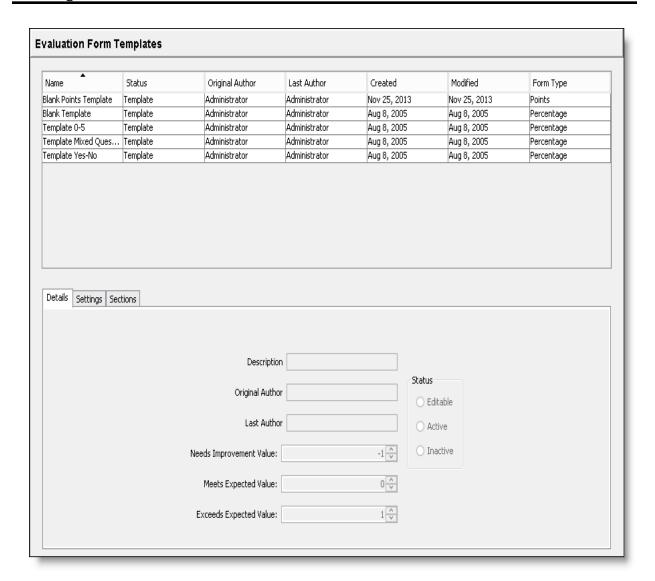
POINT-BASED SCORING (POINTS)

The evaluation is scored based on a point system. Point-based scoring is often used in incentive-based performance. Agents accumulate points and when they have enough points they can cash the points in for tangible rewards (much like credit card points). In this environment, 0 is the normal score and points are awarded for going above and beyond the normal expected outcome. Points can also be subtracted for poor service. The evaluation form allows you to assign positive or negative scores to questions.

Example: If an agent positively demonstrates understanding during a call, the value is 10 points. If the agent fails to demonstrate understanding during a call, the value is -5 points.

Evaluation Form Templates

The Evaluation Form Templates window lists the templates that you can use to create an evaluation form in the Evaluation Form Administration window.



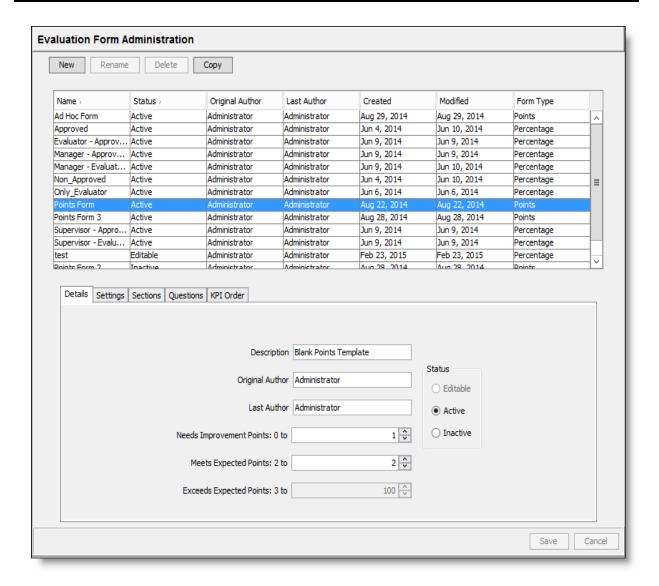
The following table describes the default templates.

Template Name	Description
Blank Points Template	Allows you to choose the question types as either scored on a scale of 0 to 5, answered with Yes or No, or customized.
	Use this template for point-based scoring.
Blank Template	Configured for mixed question types that are scored on a scale of 0 to 5 or answered with Yes or No. The template has no preexisting sections or questions.
	Use this template for percentage-based scoring.

Template Name	Description
Template 0-5	Configured for questions that are scored on a scale of 0 to 5. The template comes with preexisting sections and questions. Use this template for percentage-based scoring.
Template Mixed Questions	Configured for mixed question types that are scored on a scale of 0 to 5 or answered with Yes or No. The template comes with preexisting sections and questions. Use this template for percentage-based scoring.
Template Yes-No	Configured for questions that are answered with Yes or No. The template comes with preexisting sections and questions. Use this template for percentage-based scoring.

Evaluation Form Administration

The Evaluation Form Administration window 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.



Creating an Evaluation Form

To create a new evaluation form:

 In the navigation tree, select Recordings > Quality Management > Evaluation Forms > Forms.

The Evaluation Form Administration window appears.

2. Click New.

The Evaluation Form Configuration dialog box appears.

3. Select the type of score calculation that you want to use. Your options are:

- Percentage—Select this option if you want to use percentage-based scoring.
- Points—Select this option if you want to use point-based scoring.
- 4. Choose an evaluation form template from the drop-down list. Your options are:
 - Percentage: Template 0-5, Template Yes-No, Blank Template, or Template Mixed Questions
 - Points: Template Points Form
- 5. Type a unique name for the evaluation form and then click OK.

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

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.

Field	Description
Description	A descriptive name of the form or template. The default description is the name of the template used to create the form.
Original Author	The name of the person who originally created the form or template. The default is Administrator.
Last Author	The name of the person who last modified the form or template. The default is Administrator.
Needs Improvement Percentage	The evaluation score range that indicates the agent's performance needs improvement. The lowest value is 0. If you change the highest value, all other score ranges change accordingly.
	Example: A value from 0 to 74% is a below average score that indicates the agent needs additional coaching.
	This field only appears if the evaluation form uses percentage- based scoring.

Field	Description
Meets Expected Percentage	The evaluation score range that indicates the agent's performance meets expectations. If you change the highest and lowest value, all other score ranges change accordingly.
	Example: A value from 75 to 89% can be considered an adequate or average score.
	This field only appears if the evaluation form uses percentage- based scoring.
Exceeds Expected Percentage	The evaluation score range that indicates the agent's performance exceeds expectations.
	Example: A value from 90 to 100% is an above average score that indicates an agent performed beyond the normal expected outcome.
	This field is not editable. The value in this field it depends on the values set in the lower two score range fields. The maximum value is 100.
	This field only appears if the evaluation form uses percentage- based scoring.

Field	Description
Needs Improvement Points	The evaluation points range that indicates the agent's performance needs improvement.
	Example: Negative values are subtracted for poor service. In this instance, a value from -1 to -50 is a below average score that indicates the agent needs additional coaching.
	The minimum integer value can be less than 0. Note that the minimum value for this range is determined by the total of all minimum values that you assign to questions. If you change the highest value, the lowest value for Meets Expected Points changes accordingly.
	Note: You cannot change the value in this field until you create questions and assign maximum and minimum values to those questions.
	This field only appears if the evaluation form uses point-based scoring.
Meets Expected Points	The evaluation points range that indicates the agent's performance meets expectations.
	Example: A value from 0 to 2 can be considered an adequate or average score.
	If you change the value, all other score ranges change accordingly.
	Note: You cannot change the value in this field until you create questions and assign maximum and minimum values to those questions.
	This field only appears if the evaluation form uses point-based scoring.

Field	Description
Exceeds Expected Points	The evaluation score range that indicates the agent's performance exceeds expectations.
	Example: Positive values are awarded for exceptional service. In this instance, a value from 3 to 50 is an above average score that indicates an agent performed beyond the normal expected outcome.
	This field is not editable. Note that the maximum value for this range is determined by the total of all maximum values that you assign to questions.
	Note: The maximum value in this field does not change until you create questions and assign maximum and minimum values to those questions.
	This field only appears if the evaluation form uses point-based scoring.
Status	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 <i>Form Status</i> for more information about statuses.

To configure an evaluation form's details:

- 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.

The form's properties appear in the tabbed section at the bottom of the window.

3. Click Save.

Form Status

A form's status determines if it is available for use and if it can be modified. The following table describes the possible states.

Status	Description
Editable	The form can be modified, renamed, and deleted. It is not yet available for evaluators to use.
Active	The form is available for use by evaluators, supervisors, or managers. Everything that does not affect the score in the evaluation can be modified, including:
	Details tab (including ranges)
	Settings tab
	 Sections tab (including names and chart results, but not weights or number of sections)
	 Question tab (including text, description, and answer label, but not number of questions, KPI, or weights)
	An active form cannot be deleted.
Inactive	The form is no longer available for use by evaluators, supervisors, or managers. It will be deleted automatically as soon as all evaluations based on it are removed from the database.

The following figure displays normal life cycle of an evaluation form.



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.

Example: You cannot go from Editable to Inactive.

To change a form's status:

- 1. In the navigation tree, select Recordings > Evaluation Forms > Forms.
 - The Evaluation Form Administration page appears.
- 2. Select the form whose status you want 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 configuration settings for evaluation, approval, and alerts. It appears at the bottom of the Evaluation Form Templates window and the Evaluation Form Administration window.

Field	Description
Evaluation and Approval	Choose one of the following evaluation and approval options:
	 Comments are Editable—when selected, allows users to edit any existing comment created by a person within the user's scope.
	Example: An agent can only edit their own comments. A supervisor can edit the comments made by agents within the supervisor's scope and the supervisor's own comments.
	 Self Evaluation Calibration Needed—When selected, allows all agents and knowledge worker to be able to evaluate their own contacts using this evaluation form.

Field	Description
Needs Approval	Choose one of the following approval options for this evaluation form:
	 No Evaluations—when selected, no evaluations require approval.
	 Self Evaluations—when selected, all self evaluations require approval.
	 All Evaluations—when selected, all evaluations require approval.
Approves	Choose one or more of the following roles that can approve this evaluation form:
	■ Evaluator
	■ Manager
	■ Supervisor

Field	Description
Alert	Choose one or both of the following alert options for this evaluation form.
	When Evaluation is Scored—when selected, an alert is sent when an evaluation is scored. Choose one or more of the following roles to notify when the evaluation is scored:
	 Agent's Manager(s)—Quality Management sends an alert to the agent's manager(s) when an eval- uation is scored.
	 Agent's Supervisor(s)—Quality Management sends an alert to the agent's supervisor(s) when an eval- uation is scored.
	 Agent/Knowledge Worker—Quality Management sends an alert to the agent or knowledge worker when their evaluation form is scored.
	Example: If you only want Quality Management to send an alert to Agent's Supervisor(s), clear the Agent's Manager(s) and Agent/Knowledge Worker check boxes.
	When Evaluation Needs Approval—when selected, and alert is sent when an evaluation needs approval. Choose one or more of the following roles to notify when the evaluation needs approval:
	 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.

Field	Description
	Example: If you only want Quality Management to send an alert to the Agent's Supervisor(s), clear the Evaluator(s) and Agent's Manager(s) check boxes.

To configure an evaluation form's settings:

- 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.

The form's settings appear in the tabbed section at the bottom of the window.

3. Click Save.

Sections Tab

The section tab allows you to specify the number of sections that appear in the evaluation form. There can be a maximum of 50 sections in a form. Sections are automatically numbered from 1 to 50.

You can use these default sections as they are in the evaluation form, or customize them to suit your needs by renaming them or deleting them.

You can also specify which sections appear in the chart results for point-based scoring.

If you are using percentage-based scoring, remember the following points when assigning weight to a section:

- You can assign a weight to each section that can affect how an evaluation is scored. The score weight percentages assigned to the sections must add up to 100 percent.
- You can assign zero (0) to a section weight if there is 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.

Field	Description
Weigh Sections Evenly	When you click this button, the values in the Score Weight Percentage columns are assigned the same weight.
	This button only appears if the evaluation form is associated with percentage-based scoring. The button is disabled when the form is Active.
Number	The number assigned to the section.
Name	The name of the section.
Chart Results	Choose the starting gradient color that will be associated with this section in a chart for a point-based evaluation form. The ending gradient color is predefined based on the starting gradient color. If you choose None, the section will not appear in the chart.
	Note: This field can be changed on an active evaluation form.
Score Weight Percentage	Adjust the weight of each section. The weights of all the sections must add up to 100%. The weight for each section will show a percentage value that includes up to 2 decimal places.
	This field only applies to percentage-based scoring.
New	Adds a new section. Quality Management supports up to 50 sections.
Rename	Changes the name of a selected section.
Delete	Deletes a selected section.

To manage sections:

- 1. Choose one of the following options:
 - To add a new section, click New under the Sections tab, type a name for the new section, and then click OK.

The Question tab appears the first time you add a new section.

- 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.
- 2. If this form uses percentage-based scoring, change the score weights for each section until they add up to 100% or click the Weigh Sections Evenly button.
- 3. Click Save.

Understanding How Sections are Weighted

Note: This topic only applies to percentage-based scoring.

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

Questions Tab

The Questions tab allows you to configure the questions and answers associated with a section. When configuring questions and answers, note that you can:

- Enter up to 100 questions per form with a limit of ten sections per form.
- Use a combination of answer of Yes/No or 0-5 scale, or custom answers on a question-

by-question basis. A minimum of two answers per question is required.

Example: Your evaluation can include not only Yes/No questions about an agent's mandatory skills but also 0-5 scale questions about the agent's soft skills.

If you use the Template 0–5, Template Mixed Questions, or the Template Yes-No to create your new form, you already have questions set up. You can use these default questions as they are in the evaluation form, or customize them to suit your needs by adding, editing, or deleting questions.

If you used the Blank Template or Template Points Form, 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.

The Questions tab displays up to 50 subordinate tabs. The names of these tabs are defined in the Sections tab. See Sections Tab for more information.

Field	Description
Section	List of sections on the form.
Number	The number assigned to the question.
Question	A question in the evaluation form. You can enter a combined maximum of 500 characters in the Question and Description fields. This field allows HTML formatting.
Description	A comment associated with the 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 Unified Workforce Optimization, a popup dialog displays the text in this field to the user.
KPI	Indicates whether or not the question has been marked as a Key Performance Indicators (KPI) question. The valid values in the KPI field are: • Yes • No
Туре	Click the Options button to define the answers to the questions. See Configure Question Options for more information.

Field	Description
Min	The minimum score for this question determined when the question options were configured. Positive or negative numbers can appear in this field.
	This field only appears if the evaluation form is associated with point-based scoring.
Max	The maximum score for this question determined when the question options were configured. Positive or negative values can appear in this field.
	This field only appears if the evaluation form is associated with point-based scoring.
Score Weight	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.
	Example: 12.55%
	See <i>Understanding How Sections are Weighted</i> for more information.
	This field only appears if the evaluation form is associated with percentage-based scoring.
New	Enter the name of a new section.
Rename	Enter a new name for a selected section.
Delete	Delete a selected section.
Weigh Questions Evenly	When you click this button, the values in the Score Weight columns are assigned the same weight.
	This button only appears if the evaluation form is associated with percentage-based scoring. The button is disabled when the form is Active.

To manage questions:

- 1. Choose one of the following options:
 - 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.
 - To add a description to a question, double-click the Description field, and type an explanation of the question.
 - To define the possible answers to the question, double-click the Type field, complete the fields in the Configure Question Options dialog box, and then click Done.

The KPI Order tab appears the first time you define an answer type as KPI.

■ To delete a question, select the question you want to delete, click Delete, and then click Yes to dismiss the Delete Question dialog box.

Quality Management Administrator removes the question from the list.

- 2. If this form uses percentage-based scoring, change the score weights for each question until they add up to 100% or click the Weigh Questions Evenly button.
- 3. Click Save.

Understanding How Questions are Weighted

NOTE: This information applies only to percentage-based scoring.

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

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:

- 20 = 10 points
- 40 = 20 points
- 60 = 30 points
- 80 = 40 points
- 100 = 50 points

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

- 20 = 5 points
- 40 = 10 points
- 60 = 15 points
- 80 = 20 points
- 100 = 25 points

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

- No = 0 points
- Yes = 50 points

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

- No = 0 points
- Yes = 25 points

The following tables show the results for several sections in a sample evaluation form.

Scored example for a 3 question section

Question	Weight	Туре	Score	Weighted Score
1	50	0-5	80	40
2	25	0-5	60	15
3	25	Yes/No	Yes	25
Section Score				80%

Scored example for a 4 question section

Question	Weight	Туре	Score	Weighted Score
1	60	0-5	60	36
2	15	0-5	80	12
3	20	Yes/No	No	0
4	5	Yes/No	Yes	5
Section Score				53%

Scored example with N/A as an answer to one of the questions	Scored exam	ple with N/A as a	n answer to on	e of the questions
--------------------------------------------------------------	-------------	-------------------	----------------	--------------------

Question	Weight	Туре	Score	Weighted Score
1	60	0-5	N/A	-
2	15	0-5	80	12
3	20	Yes/No	No	0
4	5	Yes/No	Yes	5
Section Scor	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 shows this scoring system.

Yes/No Question	No	Yes	N/A
Score	0	100	-
Possible	100	100	-

0-5 Question	0	1	2	3	4	5	N/A
Answer	0	20	40	60	80	100	N/A
Possible	100	100	100	100	100	100	-

In the current scoring system, the maximum score per question for a Yes/No question is 100 points. For a 0-5 question the maximum score per question is 100. N/A is ignored.

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

(Actual score/ Maximum score) * Weight = Weighted score

Here are some example calculations for weighted question scores:

Question type	Maximum score	Actual score	Weight	Formula	Weighted score
0-5	100	60	40%	(60/100) * 0.40	24%
0-5	100	40	17%	(40/100) * 0.17	6.8%
Yes/No	100	No	30%	(0/100) * 0.30	0%
Yes/No	100	Yes	45%	(100/100) * 0.45	45%

Configure Question Options

The Configure Question Options dialog box allows you to configure the list of possible answers for a question by:

- Choosing one of the question option templates. These templates define the type of answers that will be used for a specific question. You can choose from the following options:
 - Yes-No—answers to questions are either yes, no, or not applicable (N/A).
 - 0-5—answers to questions are based on a scale from 0-5 or N/A.
 - Custom—allows you to create your own answers.
- 2. Adding or deleting questions.
- 3. Arranging the order in which answers appear by selecting an answer and using the up or down arrows to move the answer to the correct location. In Quality Management Workforce Optimization, the drop-down list for the question will display the answers in the order shown in the Configure Questions Options dialog box.

Template Name	Description
Question Option Template	The template associated with this question. Your options are:
	 Yes/No—the answer is in the form of yes, no, or N/A.
	■ 0 - 5—the answer is scored on a scale of 0 - 5 or N/A.
	 Custom
	See Configure Question Examples for examples.
Label	The text for the answer.

Template Name	Description
Туре	The type of answer. The options are:
	Accumulative—points for this option are added together to get the final score, assuming no Key Performance Indic- ator (KPI) options are selected. In Unified Workforce Optimization the accumulative total will appear in Section Scores. KPI and Not Applicable are excluded from this score in Sections Scores so you can see what the score would have been had a KPI answer not been selected.
	Not Applicable—ignore this answer by not including it in any totals. For point-based scoring, this is similar to assigning a 0 point value. However, the Section Scores ignores this question. For percentage-based scoring, the question is removed from the total possible points.
	KPI-changes the final score to be the value specified by this option. This type of answer is used for questions that have a negative or positive impact on the score. The KPI Order tab appears the first time you define a answer type as KPI. See KPI Order for more information.
Value	The integer value associated with this answer. Essentially, this is how much the answer is worth.
	Percentage-based scoring—This is a whole number value. The valid range of whole numbers are from 0 to 100.
	Example: 20
	Point-based scoring—This is an integer value that consists of natural numbers (1, 2, 3), zero (0), or the negatives of natural numbers (-1, -2, -3,).
	Example: -10

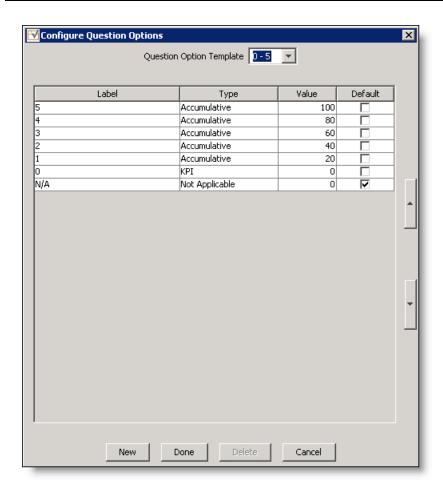
Template Name	Description
Default	When selected, this check box indicates this is the default answer for the question on the evaluation form.
	Example: If an evaluator skips a question on the evaluation form and clicks Complete to submit the completed evaluation, the default answer for the skipped question appears in the completed evaluation form.
	A default answer is required.

Configure Question Examples

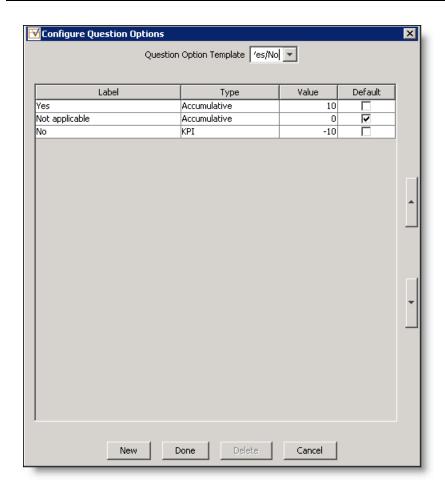
The following examples show how to configure answers for each question option template.

In the following examples, any values that are greater than 100 or less than 0 apply only to point-based scoring. Note that when creating an evaluation form for percentage-based scoring, the range of values are limited to 0 to 100.

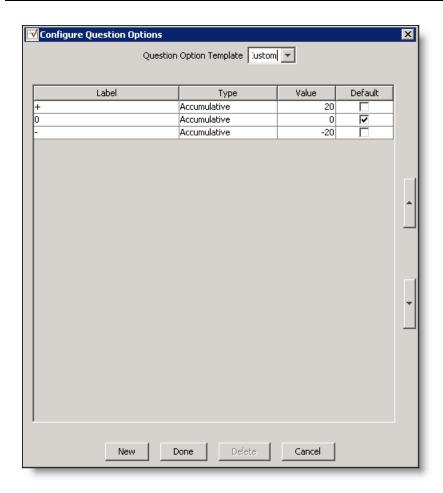
Example 1: If you want your answers to use a scale from 0-5 or Not Applicable (N/A), select 0-5 from the Question Option Template drop-down list.



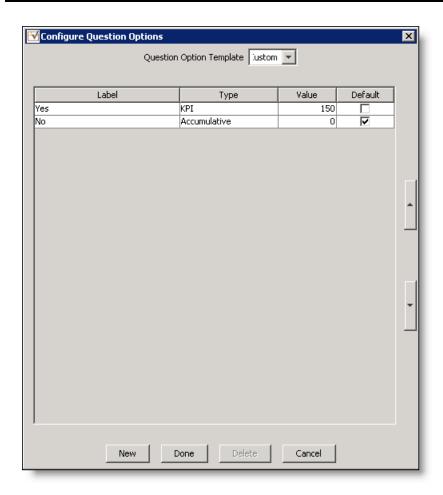
Example 2: If you want answers to use Yes, No, or N/A, select Yes/No from the Question Option Template drop-down list. You can also assign a Key Performance Indicator (KPI) to one of the answers if the answer has a negative impact to your contact center's business goals.



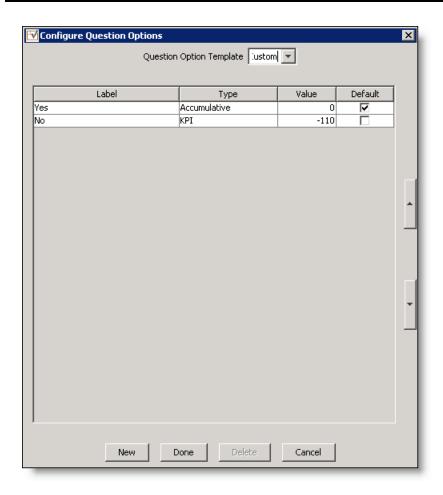
Example 3: You can create a Custom template with +, 0, and - labels.



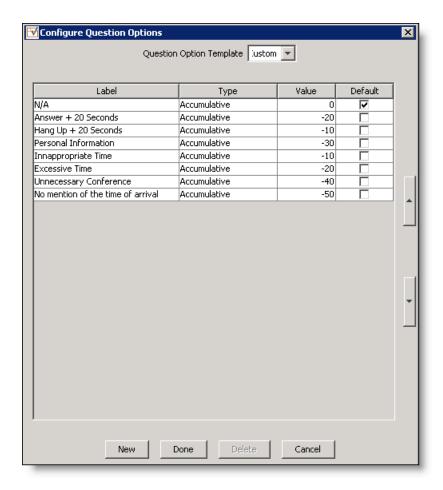
Example 4: You can use the Custom template to add Yes or No answers and then assign a KPI to the Yes answer and a value greater than 100 if you want to reward an agent for a positive KPI result.



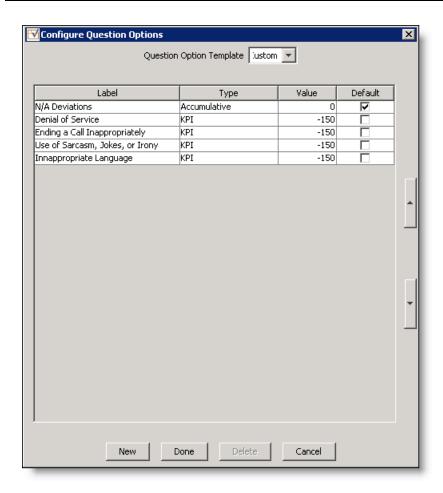
Example 5: You can use the Custom template to add Yes or No answers and assign a KPI to one of the answers.



Example 6: You can use the Custom template to add descriptive words in the Label column.



Example 7: You can use the Custom template to add descriptive words in the Label column and assign KPI to multiple answers.



KPI Order

A KPI answer has an absolute impact on the final score. If multiple KPI answers are defined, the KPI answers will be prioritized to determine which KPI answer will be used to determine the final score. The KPI Order tab ranks KPI questions in order of priority.

Field	Description
Section	The name of the section where the KPI was found.
Question	The question in the evaluation form that has a KPI answer.
Option	The answer to the question that is associated with the KPI.
Order	The order in which KPI answers are prioritized in the evaluation form. 1 is the highest priority.
	To change the priority order of a KPI question, select the KPI item from the list and use the up or down arrows to move the KPI item to the correct location.

Survey Form Administration

QM One Voice allows you to integrate Quality Management with your existing Post Call Survey account or a new Post Call Survey account. This will allow you to identify trends in calls that are causing your customers' perceptions of the company to change.

The Survey Form Administration node allows you to configure the your surveys and email distribution using an existing survey provider. Use the Survey Form Administration node to connect to the survey providers and collect data from the surveys.

The survey application is independent from Recording and Quality Management. Survey data can be collected from Interactive Voice Response (IVR) or can be collected from online survey data retrieved from email distribution. For more information, see "Post-Call Survey API" in the *Developer, API, and Database Schema Guide*.

When the File Observer service finds contacts that require a survey to be distributed, it will trigger an API request to the survey provider to distribute the survey assigned on the Survey Form Administration page. The date on the request is the day before the request is actually crated so the survey will be sent as soon as possible. The File Observer service will then trigger a request for results.

Note: Some survey providers will send the surveys immediately (for example, Qualtrics), others have built in delay for processing withing their environment (for example, Survey Monkey). The last processed Metadata time is stored in the Survey Properties so that the process knows to only send surveys that have not been distributed.

The Recent Surveys widget in Unified Workforce Optimization supports all survey types and shows the data for the active survey. The Survey Score shown for IVR is the final score of the survey. The Survey Score shown for other survey types is the KPI question's answer as final score computation does not apply to these survey types.

Data retention for surveys is the same as the metadata retention time. See *Recording Retention* for more information.

General Guidelines

When creating an account with a survey provider, the following account features are recommended:

- Unlimited responses per survey
- 6 responses or more per second

Qualtrics Requirements

Before you configure the Survey Form Administration node, you will need the following information to connect to the Qualtrics account:

- The full username used to log in to the Qualtrics online portal
- A custom toke for the Qualtrics API

- The IDs of the libraries used for the surveys
- The ID of the message to be sent when requesting a survey

Survey Monkey Requirements

Before you configure the Survey Form Administration node, you will need the following information to connect to the Survey Monkey account:

- A configured Survey Monkey account
- A developer account with Survey Monkey
- The login name, account user, or client ID from the developer account
- The developer API key
- The developer API shared secret code
- A generated token
- A verified email account (if using the Basic plan)

Managing Survey Forms

Field	Description
Survey Provider	Select the survey provider from the drop-down list. Your options are as follows:
	■ None—There is no survey provider.
	■ Generic IVR
	Qualtrics
	■ Survey Monkey
Survey Connection	
Username	Enter the user's email address or username used when logging in to the online portal for Qualtrics or Survey Monkey. This field only appears when Qualtrics or Survey Monkey is the survey provider.
Token	Enter the custom token for the Qualtrics or Survey Monkey API. This field only appears when Qualtrics or Survey Monkey is the survey provider.

Field	Description
Library ID	Enter the library IDs by the Qualtrics account. This field only appears when Qualtrics is the survey provider.
Message ID	Enter the message ID to be sent when requesting a survey. This field only appears when Qualtrics is the survey provider.
Refresh Survey List	When clicked, the Refresh Survey List button triggers the collection of Survey information from the third party provider. After selecting the survey to use from the retrieved request, KPI options are defined, Metadata field selection is made, and the distribution information is added. This field only appears when Qualtrics or Survey Monkey is the survey provider.
API Key	Enter the API key associated with this survey. This field only appears when Survey Monkey is the survey provider.
Shared Secret	Enter the shared secret associated with this survey. This field only appears when Survey Monkey is the survey provider.
Survey Configuration	
Survey	Select a survey from the drop-down list.
Voice of Customer Question	Select a question from the drop-down list.
Generate Eval Threshold	Enter the evaluation threshold by selecting one of the following options and a numeric value:
	■ Greater Than
	■ Greater Than Equals
	■ Less Than
	■ Less Than Equals
	■ Equals

Field	Description
Call Identifier	Select the call identifier that you want to use to link to a survey for a given contact Your options are as follows:
	 Associated Call ID—the survey connects to all contacts with this call identifier.
	 Contact ID—the survey connects to a single contact with this call identifier.
	 ICM Call ID—e survey connects to a specific contact with this call identifier.
	These call identifiers are located in the results column of the first question in the results file. This field only appears for a Generic IVR provider.
Schedule	Select one of the following schedule options:
	■ Every Hour
	■ Every 12 Hours
	■ Every Day at Midnight
	■ Custom—enter the interval in the field. The free form text
	value must be in Con format. See http://www.n-
	ncron.ru/help/EN/working/cron-format.htm for more information on the Cron format.
	This field only appears for a Qualtrics or Survey Monkey provider.
MetaData Field for Dis- tribution	Select the metadata field that identifies which contacts require survey distribution from the drop-down list. This field only appears for a Qualtrics or Survey Monkey provider.
Send From Email	Enter the email address used to send the survey. This field only appears for a Qualtrics or Survey Monkey provider.
Reply to Email	Enter the email address used by the customer to return the survey. This field only appears for a Qualtrics or Survey Monkey provider.
Sender Name	Enter the name of the company or person that sent the survey. This field only appears for a Qualtrics or Survey Monkey provider.

Field	Description
Email Subject	Enter the subject for the Email. This field only appears for a Qualtrics or Survey Monkey provider.
Generic IVR fields	
ID	The survey's ID.
Name	The name of the survey,
Status	 Editable. The form can be modified, renamed, and deleted. It is not yet available for evaluators to use. Active. The form is available for use by evaluators, supervisors, or managers. Once the form is active it cannot be modified.
Created	The date when the survey was created.
Total Points	The total number of points for this survey.
#	The number assigned to the question.
Question	A question in the evaluation form.

Field	Description
Туре	The type of survey question. The options are as follows: • AUDIO. The user answers the question verbally.
	Note: The audio file must be accessible from the browser using a unique HTTP or HTTPS URL on a web accessible file server. Go to the following websites for more information:
	Note: When using Survey Monkey, use only question types with numerical answers. Using any other question type will not allow average scores to be calculated.
	 OPTION. The user selects one of the provided options to answer the question. GREETING. A brief audio introduction for an IVR survey.
Weight	The weight assigned to the question.

Archive Workflows

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

To allow agents and knowledge workers access to their archived recordings:

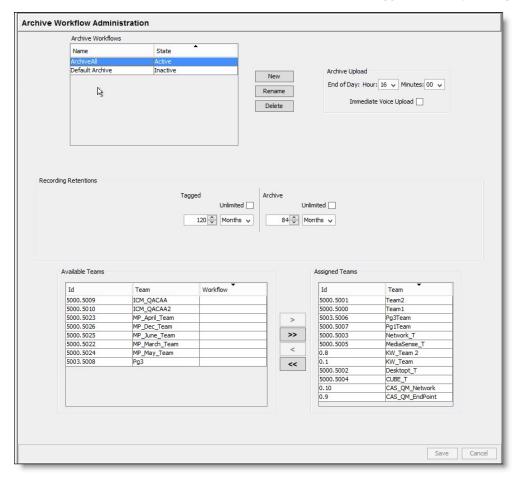
In the navigation tree, select the Recordings > Interface Configuration > Role Permissions.
 The Archive Recordings Administration window appears.

- 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.

The Recordings application appears in the Unified Workforce Optimization when agents and knowledge workers log on.

Archive Workflow Administration

Use the Workflow Administration window 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.



Field	Description
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.
Name	The name of the archive workflow.
State	The status of the workflow. The Possible states are as follows: Active—The entire workflow can be modified. Inactive—The modifiable parts of the workflow are limited
	to the fields under Archive Uploads and Recording Retentions.
End of Day	The workflow is uploaded at the end of the selected day. 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 EOD is changed, the new EOD goes into effect immediately and the Data API service will process calls using the new EOD time. If the EOD changes after the Upload Controller gets the original EOD, the Upload controller might wait to upload recordings until after the original EOD time has passed.

Field	Description
Immediate Voice Upload	When this check box is selected, audio recordings 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. This option applies to all recording types.
	If you change the Immediate Voice Upload option during the day, the change does not go into effect until the archive workflow is reloaded after the End of Day.
	For Desktop Recording, it is possible that audio recordings waiting for upload can be lost if an agent's PC crashes. Enabling immediate uploading prevents this problem.
	If you enabled two stage upload, audio recordings are uploaded immediately using the two stage upload process.
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.

To create a new archive workflow:

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

The Archive Workflow Administration window appears.

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

The Archive Workflow Name dialog box appears.

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

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. To upload audio recordings as soon as a call is completed, select the Immediate Voice 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

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.

Classifiers are filters that determine which calls are recorded.

To set up classifiers for an archive workflow:

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

The Archive Workflow Classifier Configuration window appears.

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

The Classifier Name dialog box appears.

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

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 the route point number if the call was routed, or the agent extension if the call was direct call. 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.

- Line—The extension the agent used to answer the call.
- 6. Click Add to specify the phone numbers you want to filter

The Number dialog box appears.

- 7. Enter the numbers you want to filter. You can enter
 - Specific numbers

Example: 6125551212

Number ranges using wildcards

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

The numbers cannot contain dashes or parentheses, and must be between 1 and 16 characters long.

8. Click Save to save the classifier settings.

To manage archive workflows:

- To edit an existing archive workflow, select the workflow you want to modify under Archive > Workflows, complete your changes, and then click Save.
 - 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 delete under Archive > Workflows, click Delete, and then click Yes to dismiss the Confirm Deletion dialog box.
 - Quality Management Administrator deletes the archive workflow and the status of the workflow changes to Inactive. 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 the workflow or reactivate the workflow.

User-Defined Metadata

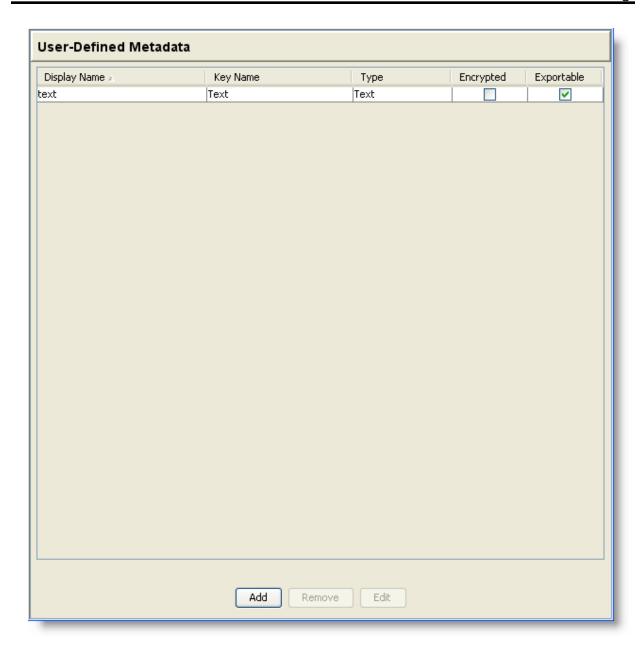
Metadata can be captured from Cisco Agent Desktop (CAD), and other applications to pass the data to the Quality Management API.

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

Use the User-Defined Metadata window to create and maintain metadata fields. You can define up to 30 metadata fields. Each metadata field can contain up to 25 characters.

These metadata fields appear in the Contact Information tab on the Media Player in Unified Workforce Optimization in the same order they appear in the User-Defined Metadata window. You can configure the order in which the metadata appears by selecting a row and using the Up and Down arrows to move the selected metadata.

The following image displays the User-Defined Metadata window.



Field	Description
Display Name	The metadata field name appears in the search results and the contact information.

Field	Description
Key Name	A unique identifier for the metadata field. APIs use the unique identifier for the metadata field. It can be a maximum of 39 alphanumeric characters, and can include only one special character, the underscore (_).
	Important: The key name must be unique. If you create a key name for a metadata value that duplicates an existing field name, you will not be able to add a search filter for that key name under the Recordings application in Unified Workforce Optimization. See Reserved Words for a list of words that cannot be used as key names.
Туре	Identifies the type of information contained in the metadata field. The available types are:
	■ Text
	■ Number
	■ Date
	■ HyperLink
l l	The maximum character length for metadata fields are as follows:
	■ Data=2056—that includes text, numbers and hyperlinks.
	Note: Once the hyperlink is saved you can click the hyperlink and the link will open in a separate web browser.
	Date—maximum length is based on the standard date format.

Field	Description
Encrypted	When selected, this check box indicates Quality Management encrypts the metadata when stored. The Exportable check box is disabled if you select the Encrypted check box.
	Note: You cannot search for encrypted metadata in Unified Workforce Optimization.
Exportable	When selected, this check box indicates you can export the metadata via an API or Unified Workforce Optimization. This check box is selected by default.

To manage metadata fields:

- 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.
 - Your changes appear in the list of metadata fields on the User-Defined Metadata window.
- To delete a 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.
 - Quality Management Administrator deletes the metadata.
- To sort the order in which the metadata appears, select a row, use the Up or Down arrow to move the metadata row to where you want it to appear. Repeat this step until all metadata rows appear in the desired order.

Reserved Words

Important: The key name must be unique. If you create a key name for a metadata value that duplicates an existing field name, you will not be able to add a search filter for that key name under the Recordings application in Unified Workforce Optimization.

The following words are reserved for Quality Management and cannot be used as a key name for a metadata value.

- acd_login_status
- agent_displayId
- ani
- approved_by
- assocCallIdCount
- call_duration
- call_line
- call_state
- called_number
- calling_number
- contact_type
- date
- direction
- dnis
- evaluation_calibration
- evaluation_date
- evaluation_form_name
- evaluation_score
- evaluation_state
- evaluator_name
- first_name
- from_address
- group_name
- hasScreen
- hasVoice

- hr
- id
- isInbound
- last_name
- license
- line
- pc_hostname
- phone_extension
- qm_login_status
- quality_reason
- recording_last_failed
- recording_last_failed_cause
- recording_last_screen_status
- recording_last_successful
- recording_last_voice_status
- recording_type
- screen_recording_ip
- silence_average_duration
- silence_max_duration
- silence_min_duration
- silence_percent_of_call
- silence_total_duration
- silence_total_events
- site_name
- subject

- talkover_average_duration
- talkover_max_duration
- talkover_min_duration
- talkover_percent_of_call
- talkover_total_duration
- talkover_total_events
- team_name
- testfield
- time
- to_address
- training
- tz
- voice_recording_ip

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 Unified Workforce Optimization user can search for recordings that have the specified silence or talkover events from the Recordings application.

Field	Description
Save TalkOver Events	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 parties on the call are talking simultaneously.
	Changes to this event configuration take effect after the next End of Day.

Field	Description
TalkOver Event Minimum Duration	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.
Save Silence Events	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 party on the call is talking.
	Changes to this event configuration take effect after the next End of Day.
Silence Event Minimum Duration	The minimum amount of time in seconds for a silence event. Quality Management only saves information about silence 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 silence events that are under 30 seconds. Quality Management does not save information about silence events below the specified minimum duration.

To configure silence and talkover events:

1. In the navigation tree, select the Recordings > Call Events node.

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.

The Recordings application in Unified Workforce Optimization allows users to search for recordings with silence and talkover events in a customer conversation.

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.

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 require 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.

Retention Rules

The retention rules window allows you to define one or more policies for contact retention based on the location of the caller (ANI/DNIS), or on the values of up to three metadata fields. Based on the settings in this window, you can specify how long contacts remain available for access before they are deleted.

These contact retention rules fall outside the retention rules for the user's workflow. The affect of these rules will only be visible to the users when a contact that matches the retention rule criteria is deleted or retained differently than the user's standard workflow.

The retention rules defined in this window will be applied in order of priority; will be run once per day.

You can change the retention rules at any time; however, because retention rules have priorities, and they may prevent a contact from being deleted, each rule must be run one-at-a-time, finally followed by the standard workflow retention time query:

- A running list of contacts will be maintained throughout the operation (in a temporary or variable table).
- Each rule should be run on this temporary list of remaining contacts.
- As each rule is run, all contacts which should be deleted via that rule should be flagged for deletion.
- As each rule is run, all contacts for which that rule applies must be removed from the temporary table.
- A contact will be deleted if it is older than the applicable retention time of the highest priority retention rule whose filters apply to the contact.

Field	Description
Rule # <number></number>	Select a rule to define. The rule definition fields appear.
Match <all any=""> of the fol- lowing conditions</all>	Select "All" to apply <i>all</i> of the specified retention conditions to contacts (this is the most restrictive option; the retention rules will apply to fewer contacts).
	Select "Any" to apply <i>any</i> of the specified retention conditions to contacts (this is the least restrictive option; the retention rules will apply to more contacts).
<condition type=""></condition>	(Unlabeled field.) Type of information on which to apply the rule.
<pre><operand></operand></pre>	(Unlabeled field.) Select the relationship between the condition and the value.
<value></value>	(Unlabeled field.) Enter the value that defines this condition. You can use wildcard symbols (* and?) to specify values that begin with or contain the entered text.
	All conditions must be associated with a value; to create a rule matching contacts which do not have a value for a metadata field, configure the condition with the "not equals" operator and the "*" wildcard.
+ and -	Click + to add a condition, or - to delete a condition.
Recording Retentions	Select "Unlimited" in any of the categories to retain contacts that meet the retention criteria indefinitely.
Scored	Enter the number of retention period units for scored contacts, then use the drop-down to select the retention period unit (days, months, or years).
Unscored	Enter the number of retention period units for unscored contacts, then use the drop-down to select the retention period unit (days, months, or years).
Tagged	Enter the number of retention period units for tagged contacts, then use the drop-down to select the retention period unit (days, months, or years).
HR	Enter the number of retention period units for HR contacts, then use the drop-down to select the retention period unit (days, months, or years).

Field	Description		
Training	Enter the number of retention period units for training contacts, then use the drop-down to select the retention period unit (days, months, or years).		
Tagged (archive)	Enter the number of retention period units for tagged archive contacts, then use the drop-down to select the retention period unit (days, months, or years).		
Archive	Enter the number of retention period units for archive contacts, then use the drop-down to select the retention period unit (days, months, or years).		
Up arrow	Increases the priority of the rule by moving it up in the rule list.		
Down arrow	Decreases the priority of the rule by moving it down in the rule list.		
Add	Adds the selected retention rule.		
Rename	Allows you to rename the selected retention rule.		
Delete	Deletes the selected retention rule.		

Interface Configuration

The Interface Configuration node allows you to control some of the features and information that appears in the Unified Workforce Optimization interface. Use the Interface Configuration node to:

- Configure role permissions
- Configure the default time format at the global level
- Enable export of recordings for specific roles
- Control the columns that appear in the <user name> ID tab in the Media Player under the Recordings application in Unified Workforce Optimization

Role Permissions

Role Permissions allow you to configure the recording visibility settings, export permissions, and agent permissions at a global level.

Recording Visibility Settings

Recording Visibility Settings controls how long customer conversations are visible in the Recordings application by role. When the time expires for a customer conversation, that recording is no longer available to the user.

Note: Specifying how long customer conversations are visible does not affect retention time. The customer conversation is not deleted when the visibility setting expires. The customer conversation will still be available based on its retention time, but it will not be visible to the user for playback in the Recordings application.

When configuring visibility of customer conversations by role, note the following:

■ The state of a recording has no impact on the visibility

Example: Scored, Unscored, In Progress, or Needs Approval

- Tagging a contact for HR or Training does not override the visibility setting
- If a user is assigned multiple roles, the longest visibility setting is used
- All references to the contact remains in reports, and dashboard widgets

Field	Description
Days	The number of days the customer conversation is visible in the Recordings application by role. The time is defined by the date and time when the call was recorded and the date and time when user logged into Unified Workforce Optimization to view and play back the customer conversation. This field is enabled when the Unlimited check box is cleared. The defaults are as follows:
	■ Agent–7 days
	■ Knowledge Worker–7 days
	■ Supervisor–14 days
	■ Manager–21 days
	■ Evaluator–14 days
	■ Archive User–21 days
Unlimited	When selected, the customer conversations are always visible. If you clear the check box, you must specify the number of days the customer conversations will be visible in the Recordings application.

Export Permissions

Quality Management Administrator disables the recordings export feature by default. From the Role Permissions window, you can enable the export of recordings by all roles or some roles.

Customer conversations are stored in a format that can be played only by Quality Management. When export of recordings is enabled, users can export recordings from the Recordings application in Unified Workforce Optimization. The recordings can be exported in the following formats:

- WAV format (uncompressed audio)
- WebM (compressed audio/video)

These formats are playable in other playback software (such as Windows Media Player).

Agent Permissions

You can choose to enable or disable the agents access to the archive, Mark for Quality, or Tag Contact features.

Field	Description
Allow Access to Access Archive	When selected, the agent can access archived contacts.
Allow Agents to Access Training	When selected, the agent can access training contacts.
Allow Agents to Mark for Quality	When selected, the agent can mark a customer conversation for quality management.
Allow Agents to Tag Contacts	When selected, the agent can tag and untag contacts that were recorded as a result of a quality management or archive workflow. Tagging a contact applies the Tagged retention time to the contact and changes the reason code accordingly. When untagged, the contact reverts to its original retention time. See <i>Recording Retention</i> for more information.

Recording Control Buttons

You can choose to enable or disable each button available in Cisco Recording Controls for agents and knowledge workers. Disabled commands do not appear in Cisco Recording Controls.

Field	Description
Record	Clear or select the ck box to enable or disable the user's ability to start recording a call.
Pause	Clear or select the check box to enable or disable the user's ability to pause a call recording.
Resume	Clear or select the check box to enable or disable the user's ability to resume call recording.
Delete	Clear or select the check box to enable or disable the user's ability to mark a call recording for deletion.
Login	Clear or select the check box to enable or disable the user's ability to send a login request for hot desking.
Logout	Clear or select the check box to enable or disable the user's ability to send a logout request for hot desking.
Metadata	Clear or select the check box to enable or disable the user's ability to attach metadata to an active call recording.
Start Segment	Clear or select the check box to enable or disable the user's ability to start audio and screen recording for an active call.

Field	Description
Stop Segment	Clear or select the check box to enable or disable the user's ability to stop audio and screen recording for an active call.
Start Screen	Clear or select the check box to enable or disable the user's ability to start screen recording.
Stop Screen	Clear or select the check box to enable or disable the user's ability to stop screen recording.

Managing Role Permissions

To manage recording visibility settings:

 Specify number of days or select the Unlimited check box for each role under Recording Visibility Settings.

To enable export of recordings:

- Select Enable Export of Recordings and choose on of the following options:
 - To enable export for all roles, select by all Roles. All roles will be able to export recordings.
 - To enable export for specific roles, select by Some Roles and the select the check box for each role that will be allowed to export recordings. Only the selected roles will be able to export recordings.

To enable permissions for all agents:

 Select one or more of the options listed under Agent Permissions. When an option is selected, all agents have access to the selected feature.

To enable or disable buttons available in Cisco Recording Controls:

 Select or clear the check box for each command you want to enable or disable in Cisco Recording Controls for agents and knowledge workers.

Interface Settings

Interface settings allow you to configure the default time format at the global level and enable Live Screen Monitor.

Hour Format

You can choose the default time format at the global level. Your options are 24 hour and 12 hour time format.

Live Screen Monitor

You can choose to enable or disable Live Screen Monitor from the Interface Settings window. Quality Management Administrator enables the Live Screen Monitoring feature by default. Live Screen Monitoring is based off the Microsoft Windows Desktop Sharing API. This same API is used by Microsoft Windows Remote Assistance. One limitation of the Microsoft Windows Desktop Sharing API is that it does not support the Windows Aero theme for the desktop being monitored during the time when another desktop is connected to and viewing that desktop.

When you enable Live Screen Monitoring, choose one of the following options:

- Load driver on request—choose this option if your agents have Desktop Recording installed on their desktop and Windows is running the Windows Aero theme. When you start monitoring an agent's screen, Windows will switch to the Windows Basic theme and the screen will flash on the agent's desktop. When you stop monitoring an agent's screen, the screen will flash and Windows will switch to the Windows Aero theme on the agent's desktop. This option is selected by default.
- Load driver on startup—choose this option if your agents have the following Microsoft patch installed on their desktops. The Microsoft patch is located at:

http://support.microsoft.com/kb/3020398

When the patch is installed, the screen will not flash when you start or stop Live Screen Monitoring on the agent's desktop.

- WAV format (uncompressed audio)
- WebM (compressed audio/video)

These formats are playable in other playback software (such as Windows Media Player).

Training Contacts

You can choose to enable or disable global agent access to training contacts from the Interface Settings window. Quality Management Administrator enables global access to training contacts by default. Your company may prefer not give all agents access to training contacts. If they choose not to give access to training contacts, the following occurs:

- "Training" is removed from the Advanced Search—Recording Flags option
- The "Mark for Training" option is removed from the Media Player
- The "Training" column is removed from the Recording application.

Changing Interface Settings

To change the hour format:

Select 12 Hour or 24 Hour under Hour Format.

To enable Live Screen Monitoring:

Select Enabled and choose either Load driver on request or Load driver on startup.

To enable creation of traning contacts:

Select Allow creation and viewing of training contacts.

Note: This setting only enables the creation of training contacts. To give agents the right to view training contacts, go to Agent Permissions and select Allow Agents to Select Training.

Recording Columns

Recording Columns controls the fields that appear in the Recordings application for Unified Workforce Optimization for all agents, knowledge workers, and supervisors.

The available fields appear under the following categories:

- Organization Fields
- Evaluation Fields
- Date Fields
- Contact Fields
- Speech Fields
- Analytics 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.

Field	Description
Available Columns	Lists the columns that will not appear in the Recordings table in Unified Workforce Optimization. Fields in the Available Columns list always appear in alphabetical order.
Show Columns	Lists the columns that will appear in the Recordings Applications under Contacts table in Unified Workforce Optimization and the search fields. You can configure the order in which fields appear in this list using the arrow keys.
	Note: Agents, knowledge workers, and supervisors can only view and search columns that appear in the Show columns. Managers, evaluators, and archive users can search all columns.

To manage recording columns:

- To assign columns in Recording Columns, choose a tab and select the columns you want to move.
 - 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 <.

Columns in the Available Columns list always appear in alphabetical order.

2. Repeat step 2 for each tab.

Organization Fields

The Organization Fields tab lists the available fields. All fields appear in the Show Columns list by default.

Field	Definition
Agent ID	The agent's ID. Only the Agent ID field can be moved between Available Columns and Show Columns.
First Name	The agent's first name. This field always appears in the Show Columns list.
Group Name	The name of the group. This field always appears in the Show Columns list.
Last Name	The agent's last name. This field always appears in the Show Columns list.
Team Name	The name of the team. This field always appears in the Show Columns list.

Evaluation Fields

The Evaluation Fields tab lists the available fields. All fields appear in the Show Columns list by default.

Field	Definition
% Score	The evaluation score given to the contact.
Approved By	The name of the manager or supervisor who approved the evaluation.
Date Evaluated	The date when the customer conversation was evaluated.
Evaluation Calibration	The contact evaluation is marked for calibration.
Evaluation Form	The name of the evaluation form used to score the customer conversation.
Evaluator Name	The name of the evaluator.

Date Fields

The Date Fields tab lists the available fields. All fields appear in the Show Columns list by default.

Field	Definition
Date	The contact date. This field always appears in the Show Columns list.

Field	Definition
Time	The time of the contact. This field always appears in the Show Columns list.
Time Zone	The time zone where the contact was recorded. Only the Time Zone field can be moved between Available Columns and Show Columns.

Contact Fields

The Contact Fields tab lists the available fields. All fields appear in the Show Columns list by default.

Field	Definition
Associated Call Count	The number of associated contacts for this call.
Associated Call ID	The ID for the associated call.
Call Duration	The duration of the contact (length of time between call answered and call dropped) in HH:MM:SS.
Call Inbound	The call is inbound. The valid values in the Call Inbound field are: • Yes
	■ No
Called Number	The number of the phone that received the call. Displays "unknown" if the called number is unlisted or blocked. This field always appears in the Show Columns list.
Calling Number	The number of the phone that made the call. Displays "unknown" if the calling number is unlisted or blocked. This field always appears in the Show Columns list.
Contact Type	The type of contact. The valid values in this field are:
	■ Call—a contact with a call recording
	■ Non-Call—a contact without call recording
Has Screen	The contact has a screen recording. The valid values in the Has Screen field are:
	■ Yes
	■ No

Field	Definition
Has Voice	The contact has a voice recording. The valid values in the Has Voice field are:
	■ Yes
	■ No
HR	The contact has been marked as an HR contact. The valid values in the HR field are:
	■ Yes
	■ No
ID	The contact's ID.
Line	The extension the agent used to answer the call. This field always appears in the Show Columns list.

Field	Definition
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 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 Cisco MediaSense Recording.
Reason	The reason the contact was recorded as set in the recording rule (Archive, First, Last, Longest, Shortest, Random, Logging, Tagged, Performance, and New Employee).

Field	Definition
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.
	This field always appears in the Show Columns list.
Training	The contact has been marked as a training contact. The valid values in the Training field are:
	■ Yes
	■ No

Speech Fields

The Speech Fields tab lists the available fields.

Field	Definition
AVG Silence	The average silence time in HH:MM:SS.
AVG Talk Over	The average talkover time in HH:MM:SS.
MAX Silence	The duration of the longest silence event that was detected in HH:MM:SS.
MAX Talk Over	The duration of the longest talkover event that was detected in HH:MM:SS.
MIN Silence	The duration of the shortest silence event that was detected in HH:MM:SS.
MIN Talk Over	The duration of the shortest talkover time that was detected in HH:MM:SS.

Field	Definition
PCT Silence	The percentage of detected silence time.
PCT Talk Over	The percentage of detected talkover time.
Silence Events	The number of detected silence events.
Talk Over Events	The number of detected talkover events.
TOT DUR Silence	The total duration of silence time in HH:MM:SS.
TOT DUR Talk Over	The total duration of talkover time in HH:MM:SS.

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* for information on adding your own metadata fields.

The Date field always appears in the Show Columns list.

View Configuration

A QM view controls the scope of access a user has in QM. A user assigned to a view has access only to the entities (groups, teams, or specifically defined sets of metadata) assigned to that view according to the permissions of their role. Views create a scope for the customer, and allow it to differentiate contacts as it receives them.

Note: Before QM Views can be created, the customer must have created at least one metadata field and have at least one valid user defined.

Example: A customer can act as a contact center service provider for several customers, each of which can have a separate toll-free number. Agents in the centralized contact center can take calls pertaining to any or all of the various customers. QM views are created for each of the contact center's customers, with metadata tags for each incoming number. By applying a metadata tag for a view to each call, the calls can be limited to an exclusive scope for each customer.

A QM user can be assigned to multiple views.

QM Views only pertain to calls received after the view was created. Users cannot retroactively tag previously recorded calls to add them to a new or current view.

Note: After QM views are created, the metadata comparisons are only applied to active QM views. As a result, if the customer makes a view inactive, no processing for that view will take place until the view is made active again.

QM views supersede any pre-existing scoping configurations. Only contacts that match the QM View rules and have a nonzero quality or archive reason will be available in the Recording application. When a QM user is assigned to an Active QM view, the Recording application will be the only one available.

Creating QM Views

When you access this page, the system populates it with existing QM View and Person data. The table below lists the fields in the Views section of the View Configuration window:

Field	Description
Inactive tab	Provides QM View and Person data for inactive views. Only inactive views can be edited or removed.
Active tab	Provides QM View and Person data for active views. Active views cannot be edited or removed. Metadata comparisons are only applied to active QM views.
View ID	Alphanumeric identifier for the view.
Name	Name of the view
Status	Status of the view:
	Active Inactive
Rules	Number of rules included in the view.
Persons	Number of users assigned to the view.
Add	Creates the view.
Edit	Opens the Edit QM View Information window, which allows you to change the selected view.
Сору	Creates a new view based on the selected view.
Delete	Deletes the selected view.

The table below lists the fields in the Persons section of the View Configuration window:

Field	Description
Person ID	The QM ID of the user.
Name	Name of the QM user.
Add	Adds the selected person to the selected view.
Remove	Removes the selected person from the selected view.

The table below lists the fields on the Edit QM View Information window:

Field	Definition
View Name	Name of the view.
Status	Status of the view:
	Active Inactive
Condition type	Condition type of the view rule:
	Match All Match Any
Metadata field	Name of the metadata field used for the rule.
Value	Value of the metadata field used for contact matching.
Add	Opens the Add QM View Rule Information window.
Edit	Allows you to change the selected QM view rule information.
Remove	Allows you to delete the selected QM view rule information.
Update	Save the changes to the values of the fields on the window.
Cancel	Do not save the changes to the values of the fields on the window.

The table below lists the fields on the Add QM View Information window:

Field	Definition
Metadata field	Select the metadata field to add.
Rule value	Enter the value of the metadata rule field.
Add	Save the new rule information.
Cancel	Do not save the new rule information.