



## **Webex WFO User Guide**

### **For Deployments with New WFM**

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# Configure Webex WFO

Use these sections in Webex WFO to set up how Webex WFO connects to your ACD and storage, and how the Webex WFO applications interact with your workforce.

## Log in to Webex WFO

The login page allows you to log in using your Webex WFO credentials.

The following table describes the fields on the Login page.

Field	Description
Language	<p>Choose the language used in the Webex WFO interface. The language you choose is used in all products, and persists from session to session for your user name. Your language choice also changes the way times and dates are displayed in the interface to a format appropriate for the selected language.</p> <p>If you change the language selection, you must log out and log back in to Webex WFO for the language selection to be changed throughout the product.</p>
Username	<p>Your user name. This is the user name assigned to you by your administrator, or your Windows Active Directory user name.</p> <p>Use your email address if you received notification to login with an email address.</p>
Domain	<p>The Active Directory domain. This field is displayed only on systems that use Active Directory. Select the domain associated with your Active Directory user name and password.</p>
Password	<p>Your password. This is the password initially assigned to you by your administrator, or your Windows Active Directory password.</p> <p>This field is not required if you are logging in via single sign-on.</p>

Field	Description
Forgot Password?	Reset your password.
IAM SSO	The login path for users of New Webex WFO only.

## Log in using single sign on

1. Enter your user name and click **Single Sign On**. You will be redirected to your identity provider's login page.
2. Enter your login credentials into your identity provider. You will be redirected back to Webex WFO .

**NOTE** Your account becomes locked if you exceed the number of failed login attempts determined by your administrator. If your account is locked, you will not be able to log in using Webex WFO credentials or single sign-on until your account is unlocked by an administrator or your password is reset.

If you forget your password or your account is locked, you can reset your password.

## Reset your password

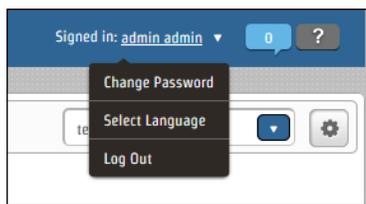
1. Click Forgot Password? on the Login page.
2. Enter your email address, click Email Password Reset, and follow the prompts. An email with instructions on how to reset your password will be sent to your email account.

## Changing your password

You can change your password at any time.

### Change your password

1. In the upper right corner of the page, click the drop-down arrow to the right of your user name and choose **Change Password**.



2. In the Change Password dialog box, type your current password, a new password, and the new password again to confirm it. The strength of the password is displayed as you enter the password.  
  
The password must meet minimum requirements for a Good or Strong password to be saved.
3. Click **Change Password**.

## Password complexity requirements

Passwords must conform to the following rules.

- Must be a minimum of 8 characters.
- Must contain at least one of each of the following.
  - Uppercase letters
  - Lowercase letters
  - Numbers 0-9
  - Special characters ! # \$ % & ( ) , . / : ; = ? @ ^ ` |
- Cannot contain your name or email address.

**NOTE** Passwords do not expire.

## Logging out

To log out of Webex WFO, hover your mouse over your user name in the upper right corner of the page, and click Log Out. This returns you to the Login page.

To exit Webex WFO completely, close your browser.

## Configure the tenant

Configuring the tenant involves the following:

- Configure aspects of the system that apply to all users and applications.
- Synchronize agent, team, and service queue data from your ACD.
- Select and configure an authentication method to verify the identity of anyone who wants to connect to Webex WFO.
- Configure your user-password policy to meet your organization's security requirements.
- Enhance your tenant's security by controlling (or "whitelisting") which IP addresses users are allowed to access Webex WFO from.

- Set up Data Server features based on a contact center's geographic location.
- Connect to an active directory (AD) server in your environment for user authentication, sync, or both.

## Configure an ACD

The ACD Configuration page lets you set up a connection between Webex WFO and one or more ACDs.

## Prerequisites

- You have the Administer ACD Configuration permission (see [Manage roles and permissions for QM and Analytics](#)).
- The Data Server service is installed on a server with access to the Webex WFO system before you test the ACD connection.

**NOTE** The installation file for the Data Server service is located on the Downloads page (see [Access Smart Desktop and Webex WFO Data Server installers](#)). If the Data Server service is not installed when you test the connection, you receive the following error message: “Error: Please verify gathering service is running.”

## Page location

Application Management > Global > System Configuration > ACD Configuration

## Procedures

### Add an ACD

1. Select a tenant.
2. Click **Add**. The ACD Details dialog box opens.
3. Select the type of ACD from the **Select ACD** drop-down list.
4. Enter the ACD's name in the **Name** field.
5. Click **OK**. The ACD Details dialog box closes, and configuration options display on the ACD Configuration page.
6. Configure the ACD by completing the fields. See the links below for ACD-specific instructions.

- [Connection settings for Cisco Unified Contact Center Enterprise](#)
- [Connection settings for Cisco Unified Contact Center Express](#)
- [Connection settings for Cisco Webex Contact Center](#)
- [Connection settings for Cisco Webex Contact Center 2.0](#)
- [Connection settings for Avaya CM with Contact Center Elite](#)
- [Connection settings for Avaya IP Office with ACCS](#)
- [Connection settings for Five9](#)
- [Connection settings for InContact](#)
- [Connection settings for generic ACDs](#)
- [Connection settings for Amazon Connect](#)
- [Connection settings for Serenova](#)
- [Connection settings for Eventide NexLog](#)
- [Connection settings for Twilio Flex](#)
- [Connection settings for UJET](#)

7. Click **Test Connection** to ensure your entries are correct and Webex WFO is connected to the ACD.
8. When the connection tests successfully, click **Save**.

### Delete or modify an ACD

- To delete an ACD, select the ACD, click **Delete**, and click **Yes**.
- To modify an ACD, select the ACD, edit the fields as desired, and click **Save**.
- To change the name of an ACD, select the ACD, click **Edit**, change the name in the **Name** field, click **OK**, and click **Save**.

### Connection settings for Cisco Unified Contact Center Enterprise

The following fields appear if the ACD you select is Cisco Unified Contact Center Enterprise.

**NOTE** If agents in your Unified CCE ACD are not configured to use a selected skill group as their default skill group, then they automatically belong to the ACD's default skill group. Historical data is not captured for the ACD default skill group but is for specific default skill groups. As a result, the

agents' time is not correctly attributed to the service queue they support in Webex WFO. It is recommended that you set a selected ACD skill group that the agent primarily supports as their default skill group in order to report their productivity correctly. Note that if they handle calls for other service queues, their time might not be correctly attributed to the appropriate service queue.

Section	Description
Historical Reporting Interval	<p>The historical data reporting interval that is configured in your Unified CCE system.</p> <p>If your ACD is configured to a 15-minute interval, you must select the 15-minute option to ensure that Webex WFO is compatible with your ACD and that all data is imported into Webex WFO. If the reporting intervals do not match, then the historical ACD data will not be captured correctly.</p>
ACD Filtering	<p>Use an ACD filter to limit the users who are synced from the ACD. For example, you might configure a Team Name filter that allows you to sync users who belong to a team that matches a certain naming pattern. You can configure multiple ACD filters.</p> <p><b>IMPORTANT</b> If you only select the <b>Service Name</b> in the <b>Prefix Type</b> drop-down list, no teams or agents sync over. Any teams or agents already synced over are deactivated.</p> <p>If you change a filter that uses the <b>Service Name</b> in the <b>Prefix Type</b> drop-down list, all previously synced service queues stay active, even if they are not captured by the changed filter.</p> <p><b>NOTE</b> If you only select the <b>Team Name</b> in the <b>Prefix Type</b> drop-down list, related service queues still sync over.</p> <p>If you change a filter that uses the <b>Team Name</b> in the <b>Prefix Type</b> drop-down list, any agents or teams no longer captured by the filter are deactivated.</p>
IP Configuration	<p>This is used to get historical data.</p> <p>HDS Primary IP Address or Hostname—The IP address or host name of the primary historical database server (HDS).</p> <p>HDS Secondary IP Address or Hostname— (Optional) The IP address or</p>

Section	Description
	<p>host name of the secondary historical database server.</p> <p>AWDB Primary IP Address or Hostname—The IP address or host name of the primary Admin Workstation database server (AWDB).</p> <p>AWDB Secondary IP Address or Hostname— (Optional) The IP address or host name of the secondary Admin Workstation database server.</p> <p>Unified CC Instance—The instance name of the Microsoft SQL Server for the Unified CCE database.</p>
<p>Authentication</p>	<p>This is used to get historical data. Select the authentication method the database login uses:</p> <p>NT—If you select NT Authentication, the following fields appear:</p> <ul style="list-style-type: none"> <li>▪ Username</li> <li>▪ Password</li> <li>▪ Domain</li> <li>▪ Peripheral ID—The ICM peripheral ID for the system.</li> </ul> <p>SQL—If you select SQL Authentication, the following fields appear:</p> <ul style="list-style-type: none"> <li>▪ SQL User—The login name of the Webex WFO SQL user.</li> <li>▪ Password—The password of the Webex WFO SQL user.</li> <li>▪ Peripheral ID—The ICM peripheral ID for the system.</li> </ul>
<p>CTI Servers</p>	<p>This is used to get agent real-time data.</p> <p>Primary CTI IP Address or Hostname—The IP address or host name of the primary CTI server associated with the system.</p> <p>Primary CTI Port—The port of the primary CTI server associated with the system.</p> <p>Secondary CTI IP Address or Hostname—The IP address or host name of the secondary CTI server associated with the system.</p> <p>Secondary CTI Port—The port of the secondary CTI server associated</p>

Section	Description
	with the system.
Departments	Enterprise Name—The name of the department or departments by the enterprise name. An enterprise name represents a tenant in a Cisco Hosted Collaboration Solution (HCS).
CDR Reconciliation Configuration	<p>(Read only) CDR (call-detail record) Base—The folder on the Data Server where the Data Server imports CDR files from the Unified CCE ACD and uploads them to Webex WFO.</p> <p>Webex WFO creates a directory with an ACD-specific subdirectory that contains the cdrBase and uploadDir directories when the Regional Data Server Reconciliation Settings feature is enabled on a Data Server and the Unified CCE ACD is assigned to that feature. The base directory path that you enter along with the ACD unique identifier display below the field. The following subdirectories are created:</p> <ul style="list-style-type: none"> <li>■ ACD-specific directory—This directory is named with a unique ACD server ID number. Because users can configure multiple ACD servers to use the same directory, a folder with a unique identifier is needed to make sure CDR files are uploaded to the correct ACD. The ACD-specific directory contains the following directories: <ul style="list-style-type: none"> <li>■ cdrdir—The Data Server places incoming CDRs from the Unified CM billing server in this folder. When configuring the Unified CM Billing Application Server, you must use the following name for the Directory Path parameter: /cdr/</li> <li>■ CdrFailures</li> <li>■ uploaddir—The Data Server places reconciled CDR and Unified CCE data in this folder until the data is uploaded.</li> <li>■ UploadFailures</li> </ul> </li> </ul>
	<p><b>NOTE</b> This field is used for Quality Management purposes only.</p>

Section	Description
Synchronization Interval	Interval (Minutes)—The length of the interval at which the ACD is synchronized with the Data Server. This is how often the Data Server attempts to synch the user, team, and service queue to Webex WFO.
Capture Settings	<p>ACD Capture Delay—Select the amount of time WFM waits before pulling ACD statistics after an interval ends. The default delay is 15 minutes.</p> <p>Enable Data Recapture—Select this check box to recapture the entire previous day. If the agent routinely handles calls that last more than the maximum default delay, you can opt to recapture the entire previous day's data from midnight to midnight. The recaptured data overwrites what was captured during the day. This ensures that your statistics are correct and that the data for very long calls is in the correct interval.</p> <p>Recapture Time—Select the time to recapture the previous day's data from the ACD. The default is 03:00.</p>

### Connection settings for Cisco Unified Contact Center Express

The following fields appear if you select Cisco Unified Contact Center Express as the ACD.

Section	Description
ACD Filtering	<p>Use an ACD filter to limit the users who are synced from the ACD. For example, you might configure a Team Name filter that allows you to sync users who belong to a team that matches a certain naming pattern. You can configure multiple ACD filters.</p> <p><b>IMPORTANT</b> If you only select the <b>Service Name</b> in the <b>Prefix Type</b> drop-down list, no teams or agents sync over. Any teams or agents already synced over are deactivated.</p> <p>If you change a filter that uses the <b>Service Name</b> in the <b>Prefix Type</b> drop-down list, all previously synced service queues stay active, even if they are not captured by the changed filter.</p> <p><b>NOTE</b> If you only select the <b>Team Name</b> in the <b>Prefix Type</b> drop-down list, related service queues still sync over.</p>

Section	Description
	<p>If you change a filter that uses the <b>Team Name</b> in the <b>Prefix Type</b> drop-down list, any agents or teams no longer captured by the filter are deactivated.</p>
<p>IP Configuration</p>	<p>Primary IP Address or Hostname—The IP address or host name of the primary Unified CCX server.</p> <p>Primary Instance Name—The name of the primary database for the Unified CCX database instance.</p> <p>Secondary IP Address or Hostname—The IP address or host name of the secondary Unified CCX server.</p> <p>Secondary Instance Name—The name of the secondary database for the Unified CCX database instance.</p> <p>The primary and secondary instance names are in the following format:</p> <p>&lt;hostname&gt;_uccx</p> <p>Where the host name is the name of the Unified CCX database server.</p> <p><b>IMPORTANT</b></p> <p>You must complete the IP Configuration fields for the following features:</p> <ul style="list-style-type: none"> <li>▪ WFM—Historical Data Capture and Sync</li> <li>▪ QM—Reconciliation and Sync</li> </ul>
<p>Authentication</p>	<p>Username—The user name of the historical reporting user in Unified CCX.</p> <ul style="list-style-type: none"> <li>▪ Enter <b>uccxhruser</b>. This is the historical reporting user found in Unified CCX Administration &gt; Tools &gt; Password Management.</li> </ul> <p>Password—The password set in Unified CCX for the historical reporting user.</p> <p><b>IMPORTANT</b> Before changing this password be aware that other applications may also use this account.</p>

Section	Description
	<p>Client Locale—The client locale that is configured in Unified CCX. The locale for US English appears by default in this field. If the client locale is changed in Unified CCX, then you must also manually change it here.</p> <p>Server Locale—The server locale that is configured in Unified CCX. The locale for US English appears by default in this field. If the server locale is changed in Unified CCX, then you must also manually change it here.</p> <p><b>IMPORTANT</b> You must complete the Authentication fields for all QM and WFM features.</p>
<p>CTI Servers</p>	<p>Primary CTI IP Address or Hostname—The IP address or host name of the primary CTI server associated with the system.</p> <p>Primary CTI Port—The port of the primary CTI server associated with the system.</p> <p>Secondary CTI IP Address or Hostname—The IP address or host name of the secondary CTI server associated with the system.</p> <p>Secondary CTI Port—The port of the secondary CTI server associated with the system.</p> <p><b>IMPORTANT</b> You must complete the CTI Servers fields for WFM Real-Time Adherence.</p>
<p>CDR Reconciliation Configuration</p>	<p>Webex WFO creates a directory with an ACD-specific subdirectory that contains the cdrBase and uploadDir directories when the Regional Data Server Reconciliation Settings feature is enabled on a Data Server, and the ACD is assigned to that feature. The base directory path that you enter along with the ACD unique identifier are displayed below the field.</p> <p>The ACD-specific directory is named with a unique ACD server ID number. Because users can configure multiple ACD servers to use the same directory, a folder with a unique identifier is needed to make sure CDR files are uploaded to the correct ACD. The ACD-specific directory contains the cdrBase and the uploadDir directories.</p> <p>(Read only) CDR Base—The path to the Unified CCX Call Detail Record</p>

Section	Description
	<p>(CDR) directory. The path you specify must be local to the Data Server. UNC paths are not supported. For example:</p> <p style="text-align: center;">cdrBase</p> <p>Webex WFO creates a directory with an ACD-specific subdirectory that contains the cdrBase and uploadDir directories when the Regional Data Server Reconciliation Settings feature is enabled on a Data Server, and the Unified CCX ACD is assigned to that feature. This generates the following path for the base directory:</p> <p style="text-align: center;">C:\cdr\<acd_id&gt;< p=""> <p>CDR Directory—The path to the Call Detail Record (CDR) directory. This is where incoming CDRs from the Unified CM billing service resides. The path you specify must be local to the Data Server. When configuring the Unified CM Billing Application Server, you must use the following name for the Directory Path parameter: /cdr/. UNC paths are not supported. For example:</p> <p style="text-align: center;">cdrDirectory</p> <p>Upload Directory—The path to the upload directory. This is where reconciled CDR and Unified CCE or Unified CCX data resides until uploaded. The path you specify must be local to the Data Server. UNC paths are not supported. For example:</p> <p style="text-align: center;">uploadDir</p> <div style="border-left: 5px solid red; padding-left: 10px; margin-top: 10px;"> <p><b>IMPORTANT</b> You must complete the CDR Reconciliation Configuration fields for QM Reconciliation.</p> </div> </acd_id&gt;<></p>
Synchronization Interval	Interval (Minutes)—The length of the interval at which the ACD is synchronized with the Data Server.
Capture Settings	ACD Capture Delay—Select the amount of time WFM waits before pulling ACD statistics after an interval ends. The default delay is 15 minutes.

Section	Description
	<p>Enable Data Recapture—Select the check box to recapture data from the entire previous day. If you routinely handle calls that last more than the maximum default delay, you can opt to recapture the entire previous day's data from midnight to midnight. The recaptured data overwrites what was captured during the day. This ensures that your statistics are correct and that the data for very long calls is in the correct interval.</p> <p>Recapture Time—Select the time to recapture the previous day's data from the ACD. The default is set to 03:00.</p> <p><b>IMPORTANT</b> You must complete the Capture Settings fields for WFM Historical Data Capture.</p>

### Connection settings for Cisco Webex Contact Center

**NOTE** Webex WFO currently refers to Cisco Webex Contact Center (CWCC) as Cisco Customer Journey Platform (CJP).

The following fields appear if you select **Cisco Customer Journey Platform** as the ACD.

**IMPORTANT** You must complete these fields for all features.

Section	Description
ACD Filtering	Use an ACD filter to limit the users who are synced from the ACD. For example, you might configure a Team Name filter that allows you to sync users who belong to a team that matches a certain naming pattern. You can configure multiple ACD filters.
Cisco Customer Journey Platform API	<p>Cisco Customer Journey Platform API URL—The path to the CWCC API. Include the complete URL.</p> <p><b>EXAMPLE</b> <code>https://rest-sbxa.ccone.net/aws/api</code></p> <p>Cisco Customer Journey Platform Media API URL—The path to the CWCC Media API. Include the complete URL.</p> <p><b>EXAMPLE</b> <code>https://rd-sbxa.ccone.net/cr/get-decrypted-recording</code></p> <p>User Name—The user name with access to the CWCC API and CWCC</p>

Section	Description
	<p>Media API.</p> <p>API Key—The requesting API Key for the CWCC API and CWCC Media API.</p> <p>Cisco Webex Contact Center 1.0 — Select this checkbox to enable API requests specific to Webex Contact Center 1.0 or newer.</p> <p>Cisco Tenant ID — Enter the alphanumeric identifier of the Webex Contact Center tenant account.</p>
Synchronization Interval	Interval (Minutes)—The length of the interval at which the ACD is synchronized with the Data Server.
Capture Settings	<p>ACD Capture Delay—The amount of time WFM waits before pulling ACD statistics after an interval ends. The default delay is 120 minutes.</p> <p>Historical data from CWCC may not be available for up to 120 minutes after an interval ends.</p> <p><b>NOTE</b> Enable Data Recapture—Select this check box to recapture data from the entire previous day.</p> <p>If you routinely handle calls that last more than the maximum default delay, you can opt to recapture the entire previous day’s data from midnight to midnight. The recaptured data overwrites what was captured during the day. This ensures that your statistics are correct and that the data for very long calls is in the correct interval.</p> <p>Recapture Time—Enter the time to recapture the previous day’s data from the ACD.</p>
Enable RTE Messaging for Screen Recording	Enables the Smart Desktop to record screens for calls recorded by CWCC.

**Integrating core configuration data**

Webex WFO syncs the following core configuration data with equivalents from CWCC through three API requests.

**Users**

When Webex WFO imports a new user from CWCC, it creates a new Webex WFO user who has a CWCC user profile.

When someone changes user data in CWCC, the sync service detects it and makes several changes in Webex WFO. The following table summarizes these changes.

**NOTE** Users with a Not Active status in CWCC are not imported unless they are restored.

Change in CWCC	Resulting Change in Webex WFO
New user is added	<p>New user is added. Specifically, the sync service:</p> <ul style="list-style-type: none"> <li>Applies the CWCC user’s first and last name to the Webex WFO user’s first and last name.</li> <li>Applies the CWCC user’s TID to the Webex WFO user’s ACD ID.</li> <li>Sets the Webex WFO start dates for the company and department to the date that the sync occurred.</li> <li>Assigns the Webex WFO user to the default team.</li> </ul> <p><b>NOTE</b> Webex WFO does not preserve the relationship between CWCC users and teams. See <a href="#">Teams</a>.</p> <ul style="list-style-type: none"> <li>If the CWCC user is contact-center enabled, assigns the default agent role to the Webex WFO user. No other Webex WFO roles are synced with CWCC.</li> </ul> <p><b>NOTE</b> If you remove the agent role from a Webex WFO user who is synced with a CWCC user who is contact-center enabled, the agent role is reassigned the next time Webex WFO syncs with CWCC.</p>
User’s first or last name is changed	User’s first or last name is changed.
User is deleted	User is deactivated.

## Teams

Webex WFO syncs with CWCC teams of any type (Capacity Based or Agent Based), as long as they are active. It does not preserve the relationship between CWCC users and CWCC teams. You must manually reassign users to teams in Webex WFO.

When team data is changed in CWCC, the sync service detects it and makes several changes in Webex WFO. The following table summarizes these changes.

Change in CWCC	Resulting Change in Webex WFO
New team is added	New team is added with the same name. This name is read-only.
Team name is changed	Team name is changed.
New user is added to a team	No change. Webex WFO does not preserve the relationship between CWCC users and CWCC teams.
User is removed from a team	No change. Webex WFO does not preserve the relationship between CWCC users and CWCC teams.
Team is deleted	No change.

You can create new teams in Webex WFO and assign users to them, but these new teams are not added to CWCC.

A Webex WFO user can belong to only one team.

### Service Queues

Webex WFO syncs the following Entry Points/Queues from CWCC with service queues:

- Queues
- Outdial Queues

When either a queue or an outdial queue data is changed in CWCC, the sync service detects it and makes several changes in Webex WFO. The following table summarizes these changes.

Change in CWCC	Resulting Change in Webex WFO
New queue is added	First, a new service queue is added. Specifically, the sync service does the following: <ul style="list-style-type: none"><li>▪ Applies the CWCC queue name to the Webex WFO service queue name</li></ul>

Change in CWCC	Resulting Change in Webex WFO
	<ul style="list-style-type: none"> <li>Applies the queue TID to the Webex WFO service queue ID</li> <li>(Read only) Gives the Webex WFO service queue a service queue type of Voice [Interactive]</li> <li>(Read only) Gives the Webex WFO service queue a Source ACD of CWCC</li> </ul> <p>Second, a new skill mapping is added. Specifically, the sync service does the following:</p> <ul style="list-style-type: none"> <li>Applies the CWCC queue name to the skill mapping name</li> <li>Assigns the Webex WFO service queue that is associated with the CWCC queue to the skill mapping and gives it a priority of 1</li> </ul>
Queue name is changed	Applies the new CWCC queue name to the Webex WFO service queue name only. Webex WFO does not apply the new CWCC queue name to the associated Webex WFO skill mapping.
Queue is deleted	No change. Neither the service queue nor the skill mapping is deleted.

### Connection settings for Cisco Webex Contact Center 2.0

The following fields appear if you select Cisco Webex Contact Center 2.0 as your ACD.

**IMPORTANT** You must complete these fields for all features.

Section	Description
ACD Name	ACD Name—A unique name for the ACD.
Token Status	<p>Client ID—A set of access credentials used to retrieve the token code.</p> <p>Client Secret—A randomized secret value only known to the OAuth client and the authorization server.</p>
Cisco Configuration	<p>API URL—The path to the CWCC API. Includes the complete URL.</p> <p>Cisco Tenant ID—The alphanumeric identifier of the CWCC tenant account.</p>
Synchronization Interval	Interval (int)—Indicates how often (in minutes) you want to sync users,

Section	Description
(Minutes)	teams, and service queues in Webex WFO with their equivalents in CWCC.
Capture Settings	<p>Selectable Minutes—The amount of time WFM waits before pulling ACD statistics after an interval ends.</p> <p>Enable Data Recapture—Select this check box to recapture data from the entire previous day.</p> <p>Enable RTE Messaging for Screen Recording—Allows you to record the screens of Webex Contact Center 2.0 agents who are configured for screen recording in Webex WFO.</p>

### Connection settings for Avaya CM with Contact Center Elite

The following fields appear if you select Avaya CM with Contact Center Elite as the ACD.

Field	Description
ACD Filtering	Use an ACD filter to limit the users who are synced from the ACD. For example, you might configure a Team Name filter that allows you to sync users who belong to a team that matches a certain naming pattern. You can configure multiple ACD filters.
Avaya CM with Contact Center Elite Configuration	<p>SMS Server URL—URL for the SMS server.</p> <p><b>IMPORTANT</b> You must complete this field for QM and WFM sync.</p>
Avaya Communication Manager Information	<p>Communication Manager IP Address—Avaya Communication Manager IP address or host name.</p> <p>Communication Manager Login—The user name of a user with access to the Avaya database.</p> <p>Communication Manager Password—The password of a user with access to the Avaya database.</p> <p>Virtual Extension Prefix—The prefix used to identify virtual stations in the Avaya CM. Webex WFO syncs each station whose name begins with</p>

Field	Description
	<p>this prefix as a virtual extension device.</p> <p><b>EXAMPLE</b> The names of all virtual stations in your Avaya CM begin with “DMCC,” and you want to sync these stations with Webex WFO as virtual extension devices. In the Virtual Extension Prefix field, you enter <b>DMCC</b>.</p> <p>If you do not want to sync any stations as virtual extension devices, leave the Virtual Extension Prefix field blank.</p> <p>CMS ACD ID—The ID for the CMS ACD.</p> <p>Agent Name Format—Select the method for parsing agent names during ACD sync.</p> <p><b>IMPORTANT</b> You must complete the Avaya Communication Manager Information fields for the following features:</p> <ul style="list-style-type: none"> <li>▪ WFM—Sync</li> <li>▪ QM—Sync and Avaya data sync</li> </ul>
<p>Real Time Adherence (RTA) Port</p>	<p>The port number for the Avaya RTA port.</p> <p><b>IMPORTANT</b> You must complete the Real Time Adherence (RTA) Port field for WFM real-time adherence.</p>
<p>Synchronization Interval</p>	<p>Interval (Minutes)—Enter how often, in minutes, the ACD is synchronized with the Data Server.</p>
<p>Avaya GIS Configuration</p>	<p>Directory—Enter the directory path from which the Data Server looks to import Avaya GIS data.</p> <p><b>NOTE</b> Whatever path you enter here, Webex WFO creates a subfolder named with your business name.</p> <p>The port number for the Avaya RTA port.</p> <p><b>IMPORTANT</b> You must complete the Avaya GIS Configuration fields for WFM historical data capture.</p>

Field	Description
Avaya Call Management System (CMS) Connection Configuration	<p>CMS Server Address—The hostname or IP address for the CMS server.</p> <p>CMS Username—The user name for the account used to access CMS data.</p> <p>CMS Password—The password for the account used to access CMS data.</p> <p>CMS Operating Timezone—The timezone that the CMS data is reported in.</p> <p><b>IMPORTANT</b> You must complete the Avaya CMS Connection Configuration fields for QM ACD data sync.</p>
CDR Connection Configuration	<p>CDR Date Format—The format of the CDR date.</p> <p>CDR Gathering Method—The method used to gather Avaya CDRs:</p> <ul style="list-style-type: none"> <li>▪ FTP (Default)</li> <li>▪ Streaming (Reliable Session Protocol)</li> </ul> <p>CDR Server Address—IP address of the Avaya CM CDR server.</p> <p>CDR Access User Name—User name for the account used to access data on the Avaya CM CDR server.</p> <p>CDR Access Password—Password for the account used to access data on the Avaya CM CDR server.</p> <p>CDR Streaming Port—The port to listen on for Avaya CDR.</p> <p>CDR Operating Timezone—Time zone of the Avaya CM CDR server.</p> <p>Data Retention (Days)—Number of days data will be stored on the Avaya CM CDR server.</p> <p>You must complete the CDR Connection Configuration fields for QM reconciliation and gateway recording.</p>
CDR Parameter Layout	<p>Data structure layout for the Avaya CM CDR server.</p> <p><b>BEST PRACTICE</b> We recommend that you copy the second page of CDR configuration settings into this field.</p>

## Connection settings for Avaya IP Office with ACCS

The following fields appear if Avaya IP Office with ACCS as the ACD.

**IMPORTANT** You must complete these fields for all features.

Field	Description
ACD Filtering	Use an ACD filter to limit the users who are synced from the ACD. For example, you might configure a Team Name filter that allows you to sync users who belong to a team that matches a certain naming pattern. You can configure multiple ACD filters.
Avaya IP Office with ACCS Configuration	<p>Server IP Address—The IP address for the ACCS server.</p> <p>Server Port—The port number for the ACCS server.</p> <p>Login Username—The user name of a user with access to the ACCS database.</p> <p>Password—The password of a user with access to the ACCS database.</p>
Synchronization Interval	Interval (Minutes)—The length of the interval at which the ACD is synchronized with the Data Server.
Capture Settings	<p>ACD Capture Delay—Select the amount of time WFM waits before pulling ACD statistics after an interval ends. The default delay is 15 minutes.</p> <p>Enable Data Recapture—Select this check box to recapture data from the entire previous day. If you routinely handle calls that last more than the maximum default delay, you can opt to recapture the entire previous day's data from midnight to midnight. The recaptured data overwrites what was captured during the day. This ensures that your statistics are correct and that the data for very long calls is in the correct interval.</p> <p>Recapture Time—Enter the time to recapture the previous day's data from the ACD. The default is 03:00.</p>

## Connection settings for Five9

Before you configure the connection settings for Five9, you need to log in to Five9 and create a new folder in Custom Reports. Then, you need to configure five custom Five9 reports for historical data capture and save each of them in this folder. See [Connection settings for Five9](#).

System administrators can configure Webex WFO to import call recordings from the Five9 VCC or to record calls with Smart Desktop. If Webex WFO imports call recordings from the Five9 VCC, it imports each segment of a transferred call as a separate contact, which it links to the other segments with an associated call ID.

## Field descriptions

The following fields appear if you select Five9 as the ACD.

### ACD Filtering

Use an ACD filter to limit the users who are synced from the ACD. For example, you might configure a Team Name filter that allows you to sync users who belong to a team that matches a certain naming pattern. You can configure multiple ACD filters.

### Five9 Web Services API

Field	Description
Admin Service	The path to the Admin Web Services API. The default path is the following:  <code>https://api.five9.com/wsadmin/v9_5/AdminWebService</code>
Admin Service Qualified Name	The qualified name for the Admin Web Services API. The default name is the following:  <code>https://service.admin.ws.five9.com</code>
Supervisor Service	The path to the Supervisor Web Services API. The default path is the following:  <code>https://api.five9.com/wssupervisor/v9_5/SupervisorWebService</code>
Supervisor Service Qualified Name	The qualified name for the Supervisor Web Services API. The default name is the following:  <code>http://service.supervisor.ws.five9.com/</code>  User Name—The login name of the Admin Web Services API. The user must be assigned Full Administrator Permissions on the Roles tab in

Field	Description
	<p>Five9's VCC Administrator in order for the getUsersInfo API request to return other users who have been assigned the Administrator role.</p> <p><b>NOTE</b> You need a dedicated user name and password for the Data Server. If a user tries to log in to a softphone or administration using these credentials, the user will be kicked off when the Admin Web Services API uses these credentials for authentication on the Data Server.</p>
User Name	The user name of a user who can access the Admin Web Services API.
Password	<p>The password of the user who can access the Admin Web Services API.</p> <p><b>NOTE</b> (System administrators only) The Password field is blank even if the tenant administrator has entered a password for the Admin Web Service API. If you enter a password, you overwrite any existing tenant password.</p>
Domain ID	(RTE Messaging only) (System administrators only) The Five9 domain ID.
Detect Domain	(RTE Messaging only) (System administrators only) The button for retrieving the Five9 domain ID automatically. For this button to work, you must use Five9 Web Services API Version 9.5.
Five9 Call Variable ID	<p>(System administrators only) The variable number for the Five9 CallId required by Smart Desktop to record calls.</p> <ul style="list-style-type: none"> <li>▪ For tenants in the US and Canada, this value is found by default. The field can remain blank.</li> <li>▪ For tenants outside of the US and Canada, you must enter a value.</li> </ul>

## Synchronization Interval

Field	Description
Interval (Minutes)	The length of the interval at which the ACD is synchronized with the Data Server.

## Historical Data Capture

Field	Description
Report Folder	The name of the Five9 folder that you created to store the five custom Five9 reports required for historical data capture. See <a href="#">Connection settings for Five9</a> .
ACD Queue Skill Counts Report	The name of the custom Five9 report that you created for this field. See <a href="#">Connection settings for Five9</a> .
ACD Queue Skill Durations Report	The name of the custom Five9 report that you created for this field. See <a href="#">Connection settings for Five9</a> .
ACD Queue Agent Durations Report	The name of the custom Five9 report that you created for this field. See <a href="#">Connection settings for Five9</a> .
ACD Queue Agent Counts Report	The name of the custom Five9 report that you created for this field. See <a href="#">Connection settings for Five9</a> .
Agent Durations Report	The name of the custom Five9 report that you created for this field. See <a href="#">Connection settings for Five9</a> .

## Media Download (System Administrators Only)

Field	Description
Choose Region	The region of the S3 bucket where Five9 saves your call recordings. If you use the current path from Five9, this region is US West (N. California).
S3 Bucket	The URL of the S3 bucket where Five9 saves your call recordings. Currently, this path is the following:  <code>http://s3gwfive9.com</code>
IAM Access Key	The access key ID for your AWS account.
IAM Secret Key	The secret access key for your AWS account.
Media Folder	The name of the folder where Five9 saves call recordings for the tenant

Field	Description
	<p>you have selected. To get the name of this folder, contact Five9 Customer Service.</p> <p><b>EXAMPLE</b> D123/call</p>

## Capture Settings

Field	Description
ACD Capture Delay	Select the amount of time WFM waits before pulling ACD statistics after an interval ends. The default is 15 minutes.
Data Reporting Period	<p>The length of time (in minutes) for which you are requesting data from Five9. Longer data reporting periods result in fewer requests with more data. Intervals that are too long result in large amounts of data being returned. The length of time you enter must be 30–1,440 minutes.</p> <p>Five9 limits the number of record requests that can be made per day, and it limits the number of records per report to 10,000. One agent represents one record per data reporting period. You should adjust the size of the data reporting period to balance the number of requests and the resulting report file size.</p> <p><b>EXAMPLE</b> If the tenant has a data reporting period of 60 minutes, it can collect 416 one-hour periods (<math>10,000 \div 24</math>). If the tenant has a single skill group with 10 agents, it would have data for 41 days. If it had 10 skill groups, it would have data for 4 days.</p>
Enable Data Recapture	<p>Select this check box to recapture data from the entire previous day.</p> <p>If you routinely handle calls that last more than the maximum default delay, you can opt to recapture the entire previous day's data from midnight to midnight. The recaptured data overwrites what was captured during the day. This ensures that your statistics are correct and that the data for very long calls is in the correct interval.</p>
Recapture Time	Enter the time to recapture the previous day's data from the ACD. The default is 03:00.

## Messaging Settings (System Administrators Only)

Field	Description
RTE Messaging	The call recording architecture is real-time events messaging.
Legacy	The call recording architecture is browser-based.

### Connection settings for InContact

Webex WFO syncs with InContact to bring in user, team, and skill data. This data is maintained in InContact. If you change any of it in Webex WFO, those changes are not synced back to InContact.

The following fields appear if you select InContact as the ACD.

**IMPORTANT** You must complete these fields for all QM and WFM features.

Field	Description
Vendor Name	The vendor name, provided by InContact.
Application Name	The application name, provided by InContact.
	<b>NOTE</b> The application needs to include the following API scope: AdminAPI, RealtimeDataAPI, and Reporting API.
Application ID	The application ID, provided by InContact.
User Name	Your user name, as configured in InContact.
Password	Your password, as configured in InContact.

### Connection settings for generic ACDs

You can add one or more generic ACDs. Adding a generic ACD automatically creates an ACD Server ID, which is used as the source of historical data in a CSV file that is imported (see the *Webex WFO Data Import Reference Guide* for more information).

**NOTE** The ACD Server ID is not visible until you leave and then reopen the page.

### Connection settings for Amazon Connect

The following fields appear if the ACD you select is Amazon Connect.

Section	Description
ACD Filtering	<p>(Optional) The ACD filter limits the users who are synced from Amazon Connect. For example, you might configure a Team Name filter that allows the sync of users who belong to a team that matches a certain naming pattern. You can configure multiple ACD filters.</p> <p><b>NOTE</b></p> <p>Teams in Amazon Connect are structured in a hierarchy that can have up to five levels. In this hierarchy, lower-level teams are nested under higher-level teams:</p> <ul style="list-style-type: none"> <li>I. Main Team <ul style="list-style-type: none"> <li>A. First Sub Team</li> <li>B. Second Sub Team</li> </ul> </li> </ul> <p>Which agents the filter captures depends on which hierarchical level you filter at. If you filter at a higher-level team, you not only capture the agents in that higher-level team. You also capture every agent in every team that is nested under it.</p> <p>For example, if you filter at the level of the First Sub Team, you capture only the agents in that team. However, if you filter at the level of the Main Team, you capture both the agents in the Main Team and the agents in the First and Second Sub Teams.</p>
Synchronization Interval	<p>Interval (Minutes)—The length of the interval at which Webex WFO checks the Login/Logout Report folder in the S3 bucket for the Login/Logout report.</p> <p>Login Logout Report Folder—The path to the folder in the S3 bucket that contains the Login/Logout Report, which is used to sync Amazon Connect with Webex WFO. Exclude the S3 bucket prefix when you enter this path. See <a href="#">Integrate core Amazon Connect configuration data</a>.</p>
Amazon Connect	<p>Choose Region—The region of your Amazon Connect instance.</p> <p>Use IAM Role—An IAM entity that defines a set of permissions for making AWS service requests. Selecting the checkbox displays the Role ARN and External ID fields.</p>

Section	Description
	<p>S3 Bucket—The URL of the S3 bucket that the Amazon Connect instance uses for data storage and as a destination for data streaming. See <a href="#">Configure the S3 bucket for the Amazon Connect instance</a>.</p> <p>Role ARN—The Amazon Resource Name (ARN) for the role in the customer's AWS account that grants access to the S3 bucket (or more generally, the AWS services) Calabrio ONE will access. This role ARN should be in the standard AWS format:</p> <pre>arn:aws:iam::&lt;CUSTOMER_AWS_ACCOUNT_NUMBER&gt;:role/&lt;ROLE_NAME&gt;</pre> <p>External ID—The unique ID in AWS used by Calabrio when assuming the role in the customer's AWS account for cross-account role access. The field is a string that must have a minimum of 2 characters and maximum of 550 characters.</p> <p><b>BEST PRACTICE</b> Start with an alphanumeric syntax that contains only hyphens because it is consistent with allowed values.</p> <p>IAM Access Key—The access key ID of the IAM user who is assigned to a policy that grants read, write, and delete access to the S3 bucket that Webex WFO uses.</p> <p>IAM Secret Key—The secret access key of the IAM user who is assigned to a policy that grants read, write, and delete access to the S3 bucket that Webex WFO uses.</p>
<p>Historical Data Capture</p>	<p>Service Historical Report S3 Folder—The path to the folder in the S3 bucket that contains the Service Historical Report. Exclude the S3 bucket prefix when you enter this path. See <a href="#">Configure Amazon Connect reports for historical data capture</a>.</p> <p><b>EXAMPLE</b></p> <pre>ServiceName/InstanceName/ExportedReportsPrefix/ServiceQueueHistorical</pre> <p>Agent Productivity Report S3 Folder—The path to the folder in the S3 bucket that contains the Agent Productivity Report. Exclude the S3 bucket prefix when you enter this path. See <a href="#">Configure Amazon Connect reports for historical data capture</a>.</p> <p><b>EXAMPLE</b></p> <pre>ServiceName/InstanceName/ExportedReportsPrefix/AgentProductivity</pre> <p>Agent Productivity by Queue Report S3 Folder—The path to the S3 folder that contains the Agent Productivity by Queue Report. Exclude the S3 bucket prefix when</p>

Section	Description
	<p>you enter this path. See <a href="#">Configure Amazon Connect reports for historical data capture</a>.</p> <p><b>EXAMPLE</b>                      ServiceName/InstanceName/ExportedReportsPrefix/AgentProductivityByQueue</p> <p>Service Level Threshold—The service level seconds metric that you have selected when you created the report for the Service Historical Report S3 Folder field.</p>
Real Time Data Capture	<p>Kinesis Real Time Stream Name—The name of the data stream that you configured on the Amazon Kinesis dashboard. This is used to update the real-time status of your agents. Do not include the entire ARN when you enter this name. Only include the name you entered when you created the stream.</p>
Recordings	<p>S3 Folder for Recordings—The path to the folder in the S3 bucket that contains call recordings. Exclude the S3 bucket prefix when you enter this path.</p> <p><b>EXAMPLE</b> ServiceName/InstanceName/Recordings</p> <p>S3 Folder for Contact Records—The path to the folder in the S3 bucket where the Kinesis Firehose places contact trace records (CTRs). Exclude the S3 bucket prefix when you enter this path.</p> <p><b>EXAMPLE</b> ServiceName/InstanceName/CTRs</p>
Enable RTE Messaging for Screen Recording	<p>Enables the Smart Desktop to record screens for calls recorded by Amazon Connect.</p>

### Connection settings for Serenova

The following fields appear if you select Serenova as the ACD.

Section	Description
ACD Filtering	<p>(Optional) Use an ACD filter to limit the users who are synced from the ACD. For example, you might configure a Team Name filter that allows you to sync users who belong to a team that matches a certain naming pattern. You can configure multiple ACD filters.</p>

Section	Description
Serenova API	<p>Serenova Base URL—The base API URL for your Serenova tenant.</p> <p><b>EXAMPLE</b> <code>https://api.cxengage.net</code></p> <p>Serenova Tenants—The master tenant and sub-tenants that you are adding through this ACD Configuration. See <a href="#">Serenova Tenants table</a>.</p>
Capture Settings	<p>ACD Capture Delay—The amount of time WFM waits before pulling ACD statistics after an interval ends. The default is 15 minutes.</p>
Enable RTE Messaging for Screen Recording	<p>Enable RTE Messaging for Screen Recording—Enables the Smart Desktop to record screens.</p>

### Serenova Tenants table

A Serenova system can contain a master tenant only, or it can contain a master tenant (a “parent” tenant) that has one or more sub-tenants (“child” tenants). The Serenova Tenants table enables you to integrate both system setups through a single ACD configuration. You can add the master tenant only, or you can add the master tenant and any number of its sub-tenants one at a time.

## Adding a Serenova Tenant

Before you add a Serenova tenant, we recommend that you gather the following identifying information for each tenant you plan to add and store it in an easy-to-access location:

- Tenant ID
- API Key
- API Key Secret

See [Gathering identifying information for a Serenova tenant](#).

### To add a tenant to the Serenova Tenants table:

1. Click **Add**. The Serenova Tenants dialog box appears.
2. Complete the fields as described in the following table.

Field	Description
Name	The name of the master tenant or sub-tenant.

Field	Description
	<p><b>BEST PRACTICE</b> We recommend that you enter the same name that the tenant has in your Serenova system.</p>
ID	The Tenant ID of the Serenova tenant. Copy and paste this ID from the Serenova tenant. See <a href="#">To copy a Serenova tenant's Tenant ID:</a> .
API Key	The API Key that is created for the tenant when you configure the API key in Serenova. Copy and paste this key from the Serenova tenant. See <a href="#">To create an API Key and API Key Secret for your Serenova tenant:</a> .
API Secret	The API Key Secret that is created for the tenant when you configure the API key in Serenova. Copy and paste this key from the Serenova tenant. See <a href="#">To create an API Key and API Key Secret for your Serenova tenant:</a> .

3. Click **OK**.

If you are adding a master tenant and its sub-tenants through this ACD configuration, repeat the steps above for the master tenant and each of its sub-tenants.

## Gathering identifying information for a Serenova tenant

The following procedures explain how to gather the Tenant ID, API Key, and API Key Secret that you need to add each tenant to the Serenova Tenants table.

### To copy a Serenova tenant's Tenant ID:

1. Log in to Serenova.
2. Navigate to Configuration > Tenants.
3. In the Tenant Management table, double-click the tenant name. The Tenant pane appears.
4. In the Tenant pane, navigate to Details > Tenant ID.
5. Copy the Tenant ID.
6. When you configure the Serenova tenant in Webex WFO, paste the Tenant ID in the ID field.

## To create an API Key and API Key Secret for your Serenova tenant:

1. Log in to Serenova.
2. Navigate to Configuration > API Key Management.
3. Click **Create**.
4. Configure the following fields for the API Key:
  - Name—A unique identifier for the key.
  - Role—Administrator.
5. Click **Submit**. The API Credentials dialog box appears.
6. Copy the API Key and the API Key Secret.  
 **NOTE** When you click OK, you cannot see the API Key Secret again.
7. When you add the Serenova tenant in Webex WFO, do the following:
  - Paste the API Key in the API Key field.
  - Paste the API Key Secret in the API Secret field.

### Syncing core configuration data

Webex WFO integrates the following core configuration data with equivalents from Serenova:

- Users
- Teams
- Service Queues and Skill Mappings

### Users

In Serenova systems that contain a master tenant and sub-tenants, Serenova users can belong to any or all of the tenants in the system. As long as you integrate the master tenant and its sub-tenants through the same ACD configuration, Webex WFO will create only one Webex WFO user for each Serenova user.

If you add a master tenant and its sub-tenants through separate ACD configurations, Webex WFO will create a new Webex WFO user for each master tenant and each sub-tenant where a Serenova user appears. This can result in Webex WFO creating multiple Webex WFO users for a single Serenova user.

When Webex WFO imports a new user from a Serenova tenant, it creates a new Webex WFO user who has a Serenova user profile. The following table summarizes the Serenova user profile and how the values from that user profile are mapped to the new Webex WFO user.

Field	Definition
First Name	The first name of the user in the Serenova system.
Last Name	The last name of the user in the Serenova system.
Email Address	Not mapped.
Team Name	The default Webex WFO team.
Activated	The date that the user was added to Webex WFO from Serenova.
Deactivated	Not mapped. This field is updated if the Serenova user is disabled after being added to Webex WFO.
External User ID	The unique identifier of the user in Serenova.
Source	The origin of the user profile: ACD - <name of ACD configuration>.

When someone changes user data in Serenova, the sync service detects it and makes several changes in Webex WFO. The following table summarizes these changes.

Change in Serenova	Resulting Change in Webex WFO
New user is added	<p>New user is added. Specifically, the sync service:</p> <ul style="list-style-type: none"> <li>▪ Applies the Serenova user's first and last name to the Webex WFO user's first and last name.</li> <li>▪ Applies the Serenova user's unique identifier (the external user ID in the user profile) to the Webex WFO user's ACD ID.</li> <li>▪ Sets the Webex WFO start dates for the company and department to the date that the sync occurred.</li> <li>▪ Assigns the Webex WFO user to the default team.</li> </ul> <p><b>NOTE</b> Webex WFO does not preserve the relationship between Serenova users and Serenova groups, which are the Serenova equivalent of Webex WFO teams. See <a href="#">Teams</a>.</p> <ul style="list-style-type: none"> <li>▪ If the Serenova user has the agent role, assigns the default agent role to the Webex WFO user.</li> </ul>

Change in Serenova	Resulting Change in Webex WFO
	<ul style="list-style-type: none"> <li>If the Serenova user has the supervisor role, assigns the default supervisor role to the Webex WFO user.</li> </ul>
	<p><b>NOTE</b> Serenova users who have the administrator or the reporting role are not assigned any role in Webex WFO by the sync service.</p>
User's first or last name is changed	User's first or last name is changed
User is disabled	User is deactivated

## Teams

Webex WFO teams are synced with Serenova groups. Webex WFO teams do not preserve the relationship between Serenova users and Serenova groups.

When group data is changed in Serenova, the Sync service detects it and makes several changes in Webex WFO. The following table summarizes these changes.

Change in Serenova	Resulting Change in Webex WFO
New group is added	New team is added with the same name as the Serenova group. This name is read-only.
Group name is changed	Team name is changed.
New user is added to a group	No change. Webex WFO does not preserve the relationship between Serenova users and Serenova groups.
User is removed from a group	No change. Webex WFO does not preserve the relationship between Serenova users and Serenova groups.
Group is disabled	No change.

You can create new teams in Webex WFO and assign users to them, but these new teams are not synchronized back to Serenova.

## Service Queues and Skill Mappings

Webex WFO service queues are synced with Serenova queues.

When a queue is changed in Serenova, the sync service detects it and makes several changes in Webex WFO. The following table summarizes these changes.

Change in Serenova	Resulting Change in Webex WFO
New queue is added	<p>First, a new service queue is added. Specifically, the sync service does the following:</p> <ul style="list-style-type: none"> <li>▪ Applies the Serenova queue name to the Webex WFO service queue name</li> <li>▪ Applies the Serenova queue's unique identifier to the Webex WFO service queue's service queue ID</li> <li>▪ (Read only) Gives the Webex WFO service queue a service queue type of Voice [Interactive]</li> <li>▪ (Read only) Gives the Webex WFO service queue a Source ACD of Serenova</li> </ul> <p>Second, a new skill mapping is added. Specifically, the sync service does the following:</p> <ul style="list-style-type: none"> <li>▪ Applies the Serenova queue name to the Webex WFO skill mapping name</li> <li>▪ Assigns the Webex WFO service queue associated with the Serenova queue to the Webex WFO skill mapping and gives it a priority of 1</li> </ul>
Queue name is changed	<p>Applies the new Serenova queue name to the Webex WFO service queue name.</p> <p><b>NOTE</b> Webex WFO does not apply the new Serenova queue name to the associated Webex WFO skill mapping.</p>
Queue is disabled	No change. Neither the service queue nor the skill mapping is deleted.

### Connection settings for Eventide NexLog

The following fields appear if you select Eventide NexLog as the ACD.

Field	Description
Contact Upload Delay	<p>The length of the delay that is placed before each export interval. At each export interval, Webex WFO uploads all contacts that finish recording before this delay. Any contacts that finish recording after this delay are uploaded at the next export interval.</p> <p><b>EXAMPLE</b> The Export Interval field is set to 00:30, and the Contact Upload Delay field is set to 5 minutes. At 12:30, the Data Server imports and uploads all contacts that finished recording at 12:25 or earlier.</p> <p>This ensures that Webex WFO uploads audio recordings for all contacts.</p>
API URL	<p>The base URL (including the protocol) of the Eventide NexLog API.</p> <p><b>EXAMPLE</b> http://1.1.1.1</p> <p>In the <i>NexLog API Manual v2.8</i>, this base URL is identified with the following variable:</p> <p style="text-align: center;">&lt;PROTOCOL&gt;&lt;ADDRESS&gt;</p>
Username	<p>The login name of the Eventide user. This login name is case-sensitive.</p> <p><b>NOTE</b> The <i>NexLog API Manual v2.8</i> says that, to be authenticated, this user “must have the appropriate channel/resource permissions to access the requested recordings. By default an admin user will have permissions to all channels/resources.”</p>
Password	<p>The password of the Eventide user.</p>
Export Interval	<p>The frequency that Webex WFO retrieves completed call recordings from Eventide. Format = HH:MM. Minimum = 00:15. Maximum = 23:45.</p> <p><b>EXAMPLE</b> You select 01:00. This means that Webex WFO imports all completed call recordings every hour.</p> <p>If you select Grouped for Logging Type, the Export Interval setting must be greater than the Contact Group Length setting. Webex WFO crosses out Export Interval settings that are shorter than the Contact Group</p>

Field	Description
	Length setting.
Logging Type	<p>Whether Webex WFO assigns associated call IDs to the call recordings that it imports from Eventide:</p> <ul style="list-style-type: none"> <li>▪ Default—Webex WFO does not assign associated call IDs to any call recording.</li> <li>▪ Group—Webex WFO assigns the same associated call ID to all call recordings that meet the Contact Group Length and Contact Group Metadata configurations.</li> </ul>
Contact Group Length	<p>The interval (1–30 minutes) that you want to use to associate Eventide call recordings in Webex WFO. Webex WFO assigns the same associated call ID to all call recordings that begin in the same interval, even if Webex WFO imports the recordings at the end of different Export Intervals.</p> <p>The Contact Group Length setting must be less than the Export Interval setting.</p> <p>This field is available only if you select Grouped for Logging Type, and then it is required.</p>
Contact Group Metadata	<p>The metadata field from the Eventide API that you want to use to associate call recordings in Webex WFO.</p> <p>When you enter a metadata field in Contact Group Metadata, Webex WFO searches all call recordings in each Contact Group Length interval for that metadata field. If any call recordings in the same Contact Group Length interval have the same value in that metadata field, Webex WFO assigns the same associated call ID to those call recordings.</p> <p><b>NOTE</b> When Contact Group Metadata is configured, Webex WFO gives associated call IDs only to call recordings that both begin in the same Contact Group Length interval and have the same value in the Contact Group Metadata field.</p> <p>For more information about the metadata fields that you can enter, see</p>

Field	Description
	<p><u>Entering metadata.</u></p> <p>This field appears only if you select Grouped for Logging Type, and then it is optional.</p>

### Entering metadata

Webex WFO can group call recordings with any standard or custom metadata field from Eventide. However, the metadata field that you enter in Webex WFO must be formatted as it appears in the Eventide API response.

In general, this means that the metadata field must be in lowercase and without quotation marks. See the Column Name column in the 4.5.1. V\_RECORD section of the *NexLog API Manual* for a complete list of standard Eventide metadata fields.

The following table contains some example Eventide metadata fields and how those fields must be formatted in Webex WFO.

Field	Description
channelname	The name of the channel that the call was recorded on.
channelid	The channel number that the call was recorded on.
caller_id	The telephone number of the person who placed the call.

### Connection settings for Twilio Flex

The following fields appear if you select Twilio as the ACD.

**NOTE** Only a system administrator can create a new Twilio Flex ACD on the System Administrator ACD Configuration page. After created, your Twilio Flex tenant can be further customized by tenant administrators.

Click the **Twilio Config** button to access the Twilio Configuration page.

**NOTE** The available fields vary depending on whether you are logged in as a system administrator or tenant administrator, and they vary depending on if Quality Management (QM) and/or Workforce Management (WFM) was selected as an enabled product.

Field	Description
ACD Name	A drop-down list of available ACDs.

## Twilio Flex Configuration Information

Field	Description
Twilio Account SID	The ID of the system where Twilio Flex is configured. This is similar to a Webex WFO Tenant ID. The string value must start with “AC.”
Twilio Auth Token	(Optional) The authentication token, generated in Twilio, that Webex WFO uses to authenticate the Twilio Account SID.
Twilio Flex Workspace SID	The specific workspace Webex WFO pulls. There can only be one workspace Flex instance. Sub workspaces are not supported.
Twilio Flex Insights Username	(Classic WFM Only) The Twilio Flex Insights username that is used to pull historical data for WFM.
Twilio Flex Insights Password	(Optional) The password for the Twilio Flex Insights user account that is used to pull historical data for WFM.
Time Zone	The time zone that matches the timezone configured in Flex Insights. By default this is set to the tenant’s timezone.
Agent Name Format	The format for the first and last names of all agents.

## Webex WFO Configuration Information

Field	Description
Calabrio API Username	The Webex WFO service account username. This is required for uploading data to the correct tenant. This user needs to be created in the tenant and given the correct permissions to upload data. This is required for both QM and WFM.
Calabrio API User Password	The Webex WFO service account password.

## Products Enabled

The product enabled check boxes can only be configured on the System Administrator ACD Configuration page.

Field	Description
Quality Management	Quality Management has been purchased as a Webex WFO product.
Workforce Management	Workforce Management has been purchased as a Webex WFO product.

## Metadata Mapping

(Quality Management only) This section allows you to define which Twilio task attributes, including complex object-based attributes, are synced over with Twilio contacts if you have Quality Management enabled as a product. This is required in order to map additional Twilio Flex task attributes as custom metadata in Webex WFO. Enter the Twilio task attribute name exactly as it appears in the attributes of your Twilio tasks. For object-based attributes, enter them in the format <Object Name> and <Attribute Name> . Using the drop-down list, you can choose which custom metadata field a particular task attribute should be mapped to in Webex WFO.

**NOTE** Metadata mapping is not supported for attributes nested more than one level below an object.

**NOTE** Custom metadata fields must first be created in Metadata Manager (located at Application Management > QM > QM Configuration > Metadata Manager).

## Enable RTE Messaging for Screen Recording

(Quality Management only) Selecting this check box allows screen recording for the configured ACD.

## Historical Data Capture

(Classic Workforce Management only) Configuring this section enables Webex WFO to look for the Twilio Flex Insights WFM Historical Data Report to add task queues and real-time adherence data to the sync process. Your Twilio Flex account information you gathered as a prerequisite for Workforce Management is entered in the fields of this section.

Field	Description
Twilio Flex Insights Project ID	(Classic WFM only) The Flex Insights project ID for the Twilio Flex Insights project associated with the Twilio Account SID.

Field	Description
Agent Productivity Data Report ID	(Classic WFM only) The unique ID for the Agent Productivity Data report.
Queue Historical Data Report ID	(Classic WFM only) The unique ID for the Queue Historical Data report.
Service Queue	(Classic WFM only) (Optional) The Webex WFO service queue where agent productivity data not associated with a Twilio task queue is stored.

## Agent State Mapping

(Classic Workforce Management only) This section allows you to map specific Twilio activities to specific Webex WFO states for adherence if you have WFM enabled as a product. The “Hold” state is pre-configured and does not need to be mapped. Mappings can be edited or deleted by selecting the **Edit Mapping** or **Delete** icons to the right of the **Enable State Reason Code** sliders. Toggle the **Enable State Reason Code** slider to show the Twilio activity names in the Schedule Adherence drawer.

**NOTE** The slider is only available for activities mapped to the Not Ready, Work Not Ready, and Work Ready states in Webex WFO.

Field	Description
Hold	The agent has placed the contact on hold. This is pre-configured and cannot be altered.
Logout	The agent has logged out of the ACD. In many ACDs, a numeric reason code might accompany this state to indicate the reason for the state change.
Not Ready	The agent is not accepting contacts from the ACD. In many ACDs, a numeric reason code might accompany this state to indicate the reason for the state change.
Ready	The agent is ready to accept contacts from the ACD.
Talking	The agent is on a contact. This is pre-configured.
Work Not Ready	The agent is doing after-contact work and will enter a Not Ready state when finished.

Field	Description
Work Ready	The agent is doing after-contact work and will enter a Ready state when finished.

### Connection settings for UJET

The following fields appear if you select UJET as the ACD.

## Ujet Configuration

Field	Description
UJET Username	The Company Key found in the Company Key & Secret Code section in UJET developer settings of the UJET system.
UJET Password	The Secret Code found in the Company Key & Secret Code section in UJET developer settings of the UJET system.
S3 Bucket	(Read-only) The Amazon S3 bucket where call data is exported.
S3 Security Role	(Read-only) The security role of your Amazon S3 bucket.
Domain	The domain information for your UJET system.

## Webex WFO Configuration

Field	Description
Cisco API Username	The Webex WFO service account username. This is required for downloading data to the correct tenant. This user needs to be created in the tenant and given the correct permissions to upload data.
Cisco API User Password	The Webex WFO service account password.

## Enable RTE Messaging for Screen Recording

Field	Description
Enable RTE Messaging for Screen Recording	Select this checkbox to enable Webex WFO Smart Desktop for Screen Recording. See <a href="#">Screen Recording</a> for more configuration details.

### Associate phones with agents, recording groups, and recording types

After you sync devices through the Data Server (see [Configure the Data Server](#)), use the Device Associations page to associate devices from your ACD with Webex WFO users, recording groups, and recording types.

You cannot add new devices on this page. To add new devices, you must sync them through the Data Server.

### Prerequisites

- Devices have been synced through the Data Server.
- You have the Configure Device Associations permission.
- You have scope over your entire contact center organization.
- To associate an agent with multiple devices, you must have Cisco UCCE or PCCE version 12 or 12.5 as your ACD, and the devices must share the same ACD line (DN). Additional configuration within the Cisco ACD is needed.

### Location

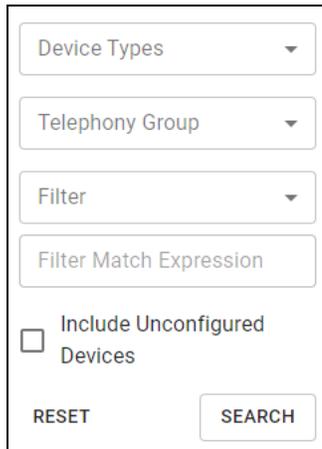
Application Management > QM > QM Configuration > Device Associations

### Procedures

#### Search for a device

- Use the search menu to find devices whose associations you want to configure or edit. You can use the asterisk (\*) wildcard in the **Filter Match Expression** field to represent any number of

characters.



The form contains the following elements:

- Device Types (dropdown menu)
- Telephony Group (dropdown menu)
- Filter (dropdown menu)
- Filter Match Expression (text input field)
- Include Unconfigured Devices
- RESET button
- SEARCH button

### Associate an agent with multiple devices

1. After locating the devices (see [Search for a device](#)), select the agent from the **Agent** drop-down menu for both devices.
2. Click **Save**.

### Edit device associations in bulk

You can edit the associations of existing devices only. You cannot add new devices via CSV import.

1. Click the options icon (three dots) and select **Export Devices**. A CSV file downloads to your device.
2. Edit the CSV file to associate the devices with users, recording groups, and recording types as desired.

#### NOTE

To associate a device with an agent, at least one of these fields must be populated:

- Username
- DomainName
- LastName
- FirstName

To disassociate a device from an agent, delete the values in all four fields.

3. Click the options icon and select **Import Devices**.

4. Import the CSV file.
5. Click **Save**.

The following table describes which fields in the exported CSV file you can and cannot edit in order to associate devices.

Field	Editable?	Description
DeviceName	N	The name of the device in your call environment.
DeviceType	N	The type of device in your call environment.
Extensions	N	The extension associated with the device in your call environment.
VirtualDeviceName	N	The non-physical device associated with a physical recorded device in your recording environment.
TelephonyGroup	N	The telephony group associated with the device in your call environment.
DisplayID	N	The ID of the device in your call environment.
IsRecordingTones	Y	If TRUE, the device beeps periodically to inform callers that the call is being recorded (not common).
Username	Y	The user name (email address) of the Webex WFO user who is associated with the device. This field is required.
DomainName	Y	The Windows login of the user associated with the device. This field is optional.
LastName	Y	The last name of the user associated with the device. This field is optional.
FirstName	Y	The first name of the user associated with the device. This field is optional.
MonitorServer	Y	Not used.
RecordingCluster	Y	The recording group associated with the device. This value is not case-sensitive. The recording group must already exist in

Field	Editable?	Description
		Webex WFO.
RecordingType	Y	<p>The recording type associated with the device. The following are allowed values for this field:</p> <ul style="list-style-type: none"> <li>▪ Event Notification</li> <li>▪ Multiple Registration Recording</li> <li>▪ Network Recording</li> <li>▪ None</li> <li>▪ Reconciliation</li> <li>▪ Single Step Conference</li> </ul>

## Related topics

- [Configure the Data Server](#)—Sync devices into Webex WFO.

### Configure Extension Mobility for Cisco Network Recording

Webex WFO supports two ways of configuring Extension Mobility (EM) for Cisco Network Recording. The terms used in this topic are those used in the current product. The terms used may differ depending on your product version. When configuring agents for Extension Mobility, note that if the user is on a phone call when they log out of a device, the recording will stop.

#### Standard Extension Mobility

This is the original way to configure EM in Webex WFO. It works for single cluster systems, and it is the recommended way to configure EM for those environments.

#### *Device associations configuration*

User Profile Configuration

- Associate a user with the user profile in Contact Devices
- Do not configure a recording group for the user profile
- The user profile does not need to be associated with the JTAPI user in Cisco Unified Communications Manager (Unified CM)

Device Configuration

- Associate devices with a default hoteling agent or leave them unassociated with any user
- Configure a recording group and recording type (Network) for the device
- Device must be associated with the JTAPI user in Unified CM

### ***How it works***

Detecting EM login and logout depends on the set of extensions that are changing on the device. This means that Webex WFO has two requirements for user profile extension configurations:

- The set of extensions on a user profile must uniquely identify that user profile
- The set of extensions on a user profile must be different from the extensions configured for any device that user profile might log in to

When an extension mobility profile logs in to or out of a device, the set of extensions on that device change. This is how logins and logouts are detected, and it is also how Webex WFO determines which user profile (if any) is logged in to the device. Each time the set of extensions changes on a device, Webex WFO checks to see if the set of extensions matches a user profile known by Webex WFO. If it does, Webex WFO associates the user on the user profile with the device. If the set of extensions on the device does not match any user profile, and there's currently a user profile logged in to the device, then Webex WFO unassociates the user profile from the device.

### **Extension Mobility Cross-Cluster**

This style of configuring EM was introduced to be able to support Cisco's Extension Mobility Cross-Cluster (EMCC) feature. In order to use the EMCC feature, there is substantial configuration required in each of the Unified CM clusters. That is not covered here. Refer to the [Feature Configuration Guide for Cisco Unified CM](#) for your version for information on configuring EMCC.

**NOTE** The IP Phone Service Recording Controls is not supported in Cisco's EMCC feature.

### ***Device associations configuration***

User Profile Configuration for User Profiles that log on to phones homed to other clusters

- Associate a user with the user profile in Contact Devices
- Configure user profile with a recording group and recording type (Network)
- User profile must be associated with the JTAPI user in Unified CM

Device Configuration for devices that User Profiles from this cluster will log in to

- Associate devices with a default hoteling agent or leave them unassociated with any user
- Configure a recording group and recording type (Network) for the device

- Device must be associated with the JTAPI user in Unified CM

### ***How it works***

Similar to standard configuration, correctly detecting EM login and logout depends on the current set of extensions on the device. The same configuration requirements apply:

- The set of extensions on a user profile must uniquely identify that user profile.
- The set of extensions on a user profile must be different from the extensions configured for any device that user profile might log in to.

### Logging into a Home Cluster Device

- When a user profile logs into a device on its home cluster (as in the same Unified CM cluster the user profile is configured on), EM works the same as in the standard configuration.
- Calls are recorded using the recording group configured on the device the profile is logged in to.

### Logging into a Remote Cluster Device

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

- When a user profile logs in to a device that is on a remote cluster (as in a Unified CM cluster different from the one the user profile is configured on), the home Unified CM cluster creates a temporary phantom visiting device.
- The Calabrio CTI Service detects the creation of this device. When the phantom device comes in service, Webex WFO checks the set of extensions to see if it matches a user profile that has a user and recording group associated with it.
- If it does, CTI registers the phantom device to record with the user and recording group configured on the matching user profile.
- When the user profile logs out of the remote device, the home Unified CM cluster removes the phantom device, and the Calabrio CTI Service disposes it.

## Related topics

- [Associate phones with agents, recording groups, and recording types](#)— Learn how to associate devices from your ACD with Webex WFO users, recording groups, and recording types.

## Configure global settings for QM and Analytics

Use the Global Settings page to configure aspects of the system that apply to all users and applications.

## Session Timeout (in minutes)

Users are automatically logged out after a period of inactivity. The Session Timeout field allows you to enter the length of time in minutes that a session should be idle before the user is automatically logged out. The default value = 60 minutes. Any change in this setting takes place the next time a user logs in or refreshes a page.

## Automatic User Creation

The Automatic User Creation check box controls whether new Webex WFO users are created when employees in your contact center log in to a PC where the Smart Desktop is installed.

- Cleared—(Default) New users are not created
- Selected—New users are created

The following table describes what happens when a Windows user logs in to a PC where Smart Desktop is installed, depending on whether the Automatic User Creation check box is selected or cleared.

Automatic User Creation check box configuration	Login is associated with an active Webex WFO user	Result in PC and Webex WFO
Cleared	Yes	Webex WFO user is recorded by Smart Desktop as configured.
Cleared	No	No new Webex WFO user is added.  Nothing is recorded by the Smart Desktop.
Selected	Yes	Webex WFO user is recorded by Smart Desktop as configured.
Selected	No	New Webex WFO user with a Recording user profile is added.  New Webex WFO user is recorded by Smart Desktop as configured.

## Client Auto Update

Select the Client Auto Update check box to enable automatic updates of Smart Desktop. When this feature is enabled, at log on and at random times between midnight and 1:00 AM, Smart Desktop compares versions with the version on the server and, if they are different, downloads the newer version and installs it to

maintain compatibility.

## Select Recording Format

Select the recording format to be used to record audio contacts.

## VP8 Codec Video Encoding

Internet Explorer does not allow VP9 Codec recording. If your organization primarily uses Internet Explorer, select the VP8 Codec Video Encoding check box to enable VP8 video encoding. If your organization does not use Internet Explorer, you can leave this box unselected.

## Generate Recording Encryption Key

This option appears only when your role has the Administer Encryption Keys permission enabled.

All stored recordings are encrypted. You can generate a new recording encryption key at any time using the Generate button. Existing recordings are not re-encrypted when you generate a new key. The new key takes effect the next time the clients are updated or reinstalled.

The new encryption key is displayed when you generate it. This key can encrypt and decrypt your recording files, so be sure to keep this key in a safe place.

In cloud deployments, the available encryption method is RSA-2048 (with asymmetric keys) and AES-256 for media recorded by Webex WFO.

## Time Zone

Select the time zone to be used as the default time zone for the customer.

## Default Language

Select the language to be used as the default language for the customer. This language can be overridden by an individual user selecting a custom language when logging in.

## User Profile Precedence

You can change the precedence of user profiles from external sources (ACD and Recording) by reordering them in the User Profile Precedence table.

**NOTE** Override user profiles have the highest precedence by default. You cannot lower this precedence. If you want to identify a user with the values stored in an ACD or Recording user profile instead of the values stored in an Override use profile, you must manually delete that user's Override user profile.

This reordering does the following:

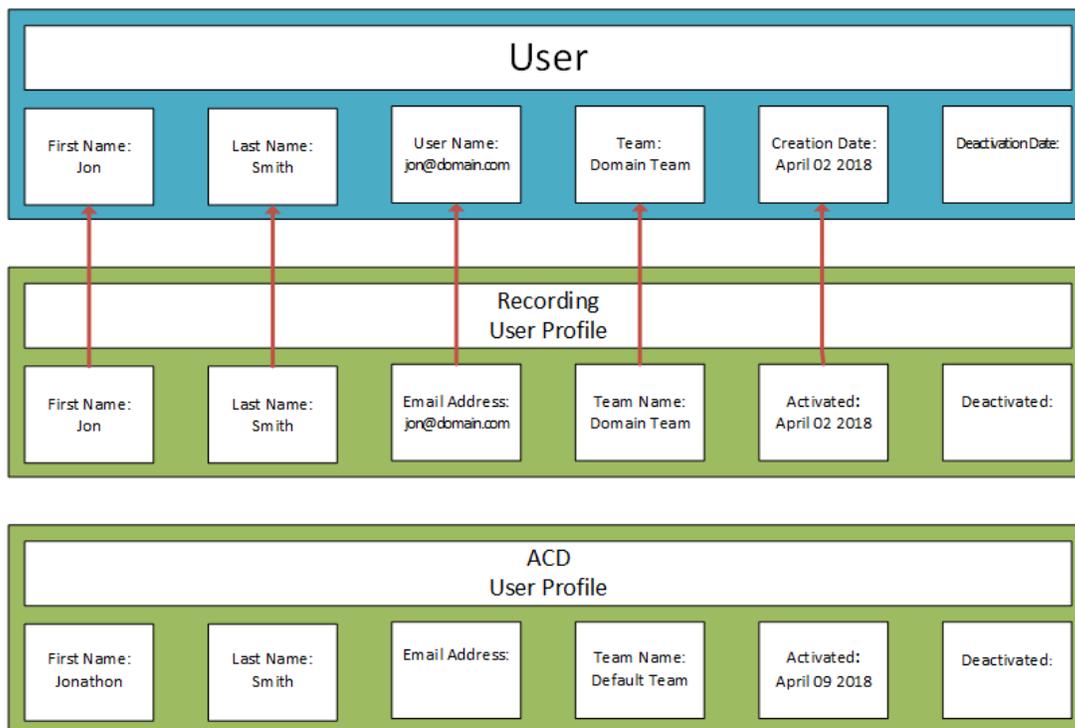
- It changes the order of the user profiles in the User Profiles table on the Users page.
- If a user has two user profiles with different values in any field, it can also change which value Webex WFO chooses to identify that user.

**BEST PRACTICE** Reordering the precedence of user profiles affects every user who has those user profiles. It is recommended that you set the precedence of user profiles once, when you first configure Webex WFO.

## User profile precedence reordering example

The following images show how a Webex WFO user’s identity is modified when the precedence of that user’s user profiles is reordered.

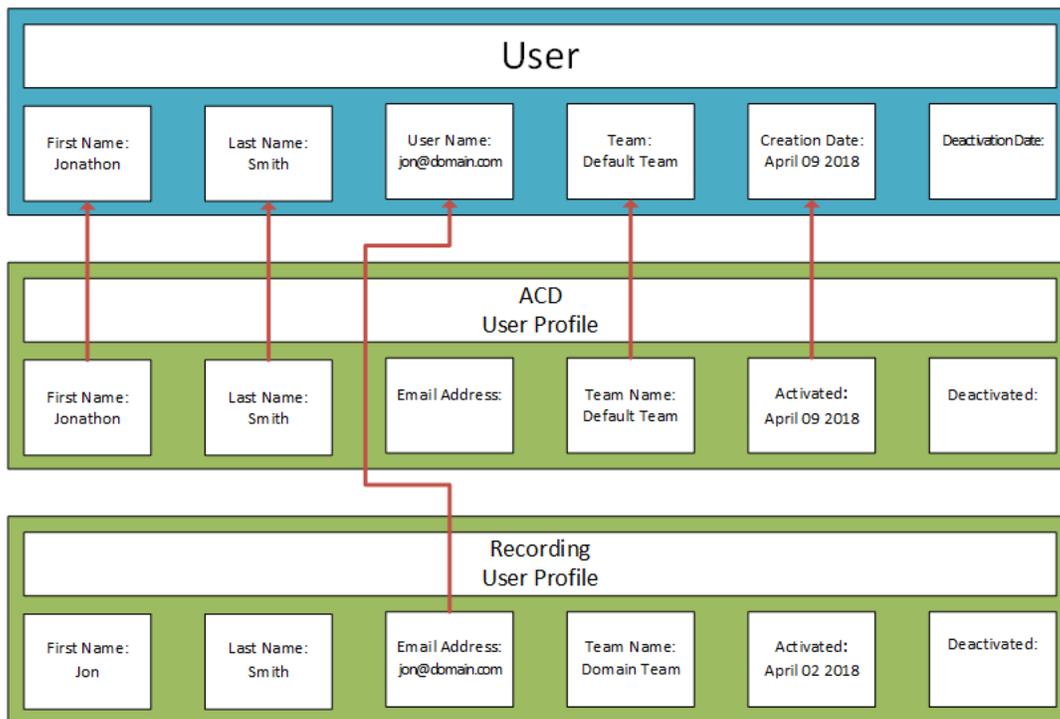
In the first image, the Recording user profile has a higher precedence than the ACD user profile, so Webex WFO selects values for most fields from the Recording user profile.



## Configure Webex WFO | Configure the tenant

In the second image, the user profiles have been reordered so that the ACD user profile has a higher precedence than the Recording user profile. Now, Webex WFO selects values for most fields from the ACD user profile. This reordering changes the user's first name, team, and creation date.

The precedence of user profiles does not affect which value is selected from the External User ID field, even if a user has both a Recording user profile and an ACD user profile. Webex WFO maps the External User ID from the Recording user profile to the user's Windows Login, and it maps the External User ID from the ACD user profile to the user's ACD ID.

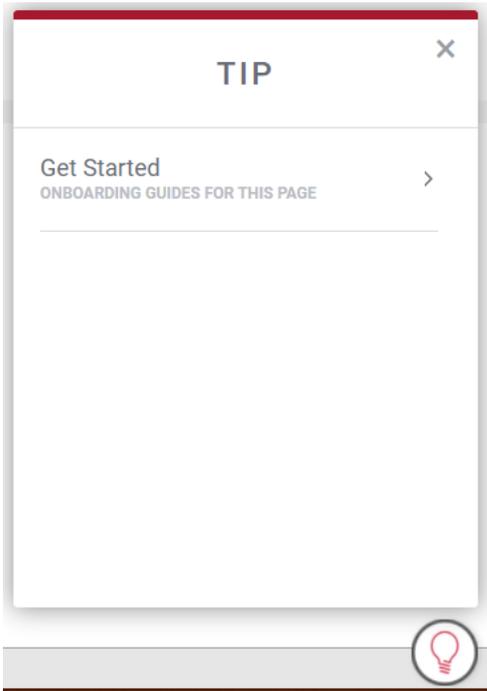


## Learn more about Webex WFO

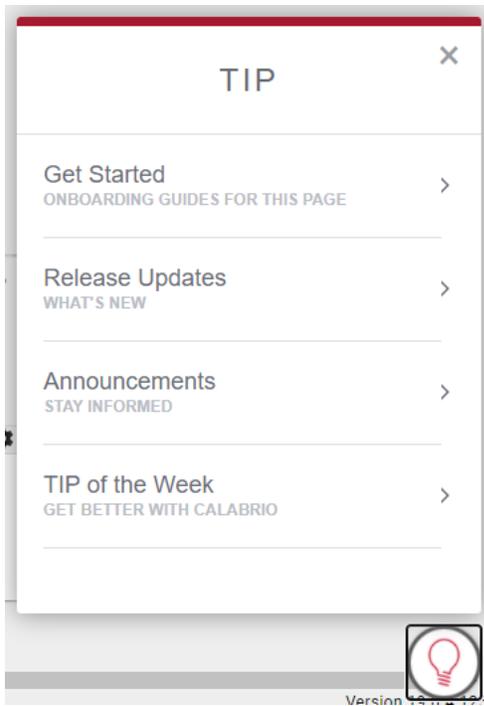
With TIP, users receive timely contextual assistance based on their needs. This content sits within the application, giving users the advice they need when they need it. Use TIP to ease onboarding, learn about changes in the product, hear important announcements, and develop your Webex WFO skills.

Information in TIP varies based on the Webex WFO permissions you have. Agents do not see as much content as administrators.

Below is what a typical agent sees in TIP: only the onboarding tours relevant to that specific page in Webex WFO.



By contrast, below is what a typical administrator sees in TIP: in addition to the onboarding tours, administrators also see information about new features, announcements from Cisco, and the TIP of the week.



TIP cannot be turned off for individual users or roles.

## Prerequisites

- Your organization uses Webex WFO Cloud
- Your organization does not use an OEM or white-labeled version of Webex WFO

## Page location

All pages > light bulb icon (lower right corner of the page)



## Procedures

### Access TIP

- Click the light bulb icon (lower right corner of the page). TIP opens, showing up to four different sections.

To do this	Go to this section in TIP
Take an orientation tour	<p>Get Started</p> <p>This section is designed for people new to Webex WFO. Tours vary by page and are tied to users' permissions.</p>
Learn about new features and read release notes	<p>Release Updates</p> <p>This section contains descriptions and tours of select new features plus a link to the full release notes. These updates are hidden from users who have only agent-type permissions.</p>
Stay current on information from Cisco	<p>Announcements</p> <p>This section covers recent updates, events, and more. Many of these announcements are hidden from users who have only agent-type permissions.</p>
Develop your skills	<p>TIP of the Week</p> <p>The weekly tips are designed to help people who have experience using Webex WFO take their knowledge to the next level. These updates are hidden from users who have only agent-type permissions.</p>

## Synchronize with the ACD

Webex WFO can synchronize data with some ACDs. The Sync Service automatically extracts the following information from an ACD and loads it into Webex WFO:

- Agents
- Teams
- Relationships between agents and teams
- Service queues

Once this information is loaded into Webex WFO, you can configure Webex WFO to generate forecasts and schedules for service queues.

**NOTE** When the ACD syncs new data, such as new agents or teams, and you are already logged in, you will not be able to view them. Your scope is determined when you log in. Since these teams and users were created after you logged in, you will not have scope over them until you log out and then log in again.

**NOTE** Any teams, agents, relationships, or service queues you create in Webex WFO are not synced back to the ACD. They are maintained only in Webex WFO.

### Synchronize agent data

Webex WFO assumes that every user imported from the ACD to Webex WFO is an agent. As a result, it creates a user record and a user profile and assigns the agent role to the user. Some ACDs can assign the supervisor role to users, and that role is assigned to the user in Webex WFO.

When someone changes user data in the ACD, the Sync service detects it and makes several changes in Webex WFO. The following table summarizes these changes.

Change in the ACD	Resulting Change in Webex WFO
New agent is added	<p>New agent is added. Specifically, the Sync service:</p> <ul style="list-style-type: none"> <li>■ Applies the ACD agent first and last name to the Webex WFO agent first and last name.</li> <li>■ Applies the ACD login ID to the Webex WFO Employee ID and ACD ID. You can change the Employee ID but not the ACD ID. Changing the Employee ID has no effect on the ACD login ID.</li> <li>■ Sets the Webex WFO start dates for the company and department to the current date.</li> <li>■ Assigns the corresponding team to the agent as the agent’s team.</li> </ul> <p><b>NOTE</b> If the ACD does not have a team assigned to the agent, you can manually assign a team to the agent in Webex WFO.</p>
Agent’s first or last name is changed	Agent’s first or last name is changed.
Agent is deleted	Agent status is set to Inactive.

### Synchronize team data

When team data is changed in the ACD, the Sync service detects it and makes several changes in Webex WFO. The following table summarizes these changes.

Change in the ACD	Resulting Change in Webex WFO
New team is added	New team is added with the same name.  Makes any agent who is a member of the team in the ACD a member of the team in Webex WFO.
Team name is changed	Team name is changed.
New agent is added to the team	New agent is added to the team.
Team is changed	No change.
Agent is removed from a team	No change.

You can create new teams in Webex WFO and assign agents to them, but these new teams are not synchronized back to the ACD.

An agent can belong to only one team. If you move an agent from one team to another in Webex WFO, you do not affect that agent's team assignment in the ACD.

### Synchronize service queue data

When service queue data is changed in the ACD, the Sync service detects it and makes several changes in Webex WFO. The following table summarizes these changes.

Change in the ACD	Resulting Change in Webex WFO
New service queue is added	New service queue is added. Specifically, the Sync service does the following: <ul style="list-style-type: none"> <li>▪ Applies the ACD service queue name to the Webex WFO service queue description</li> <li>▪ Applies the ACD service queue ID to the Webex WFO service queue ID</li> <li>▪ Gives the new service queue a service queue type of</li> </ul>

Change in the ACD	Resulting Change in Webex WFO
	<p>Interactive/Voice</p> <p>New skill mapping is added. Specifically, the Sync service does the following:</p> <ul style="list-style-type: none"> <li>■ Applies the ACD service queue name to the Webex WFO skill mapping name</li> <li>■ Applies the ACD service queue ID to the Webex WFO skill mapping number</li> </ul> <p>Creates a one-to-one mapping between the ACD skill mapping and the Webex WFO skill mapping.</p>
<p>Service queue name is changed</p>	<ul style="list-style-type: none"> <li>■ Applies the new ACD service queue name to the Webex WFO service queue description (name)</li> <li>■ Applies the new ACD service queue name to the Webex WFO skill mapping name</li> </ul>
<p>Service queue is deleted</p>	<p>No change.</p>

### Repurpose an ACD ID

The Repurpose ACD ID feature enables you to reuse ACD IDs from your Avaya system in Webex WFO. While maintaining all your historical data, it removes the ACD ID association from an inactive user (for example, one who has left your contact center) and allows you to assign it to a new user. This feature is only available for Avaya systems.

When you repurpose an ACD ID, the following associations are removed from the inactive user:

- ACD ID
- User profile from the Avaya ACD

After the ID is repurposed, the inactive user is no longer synced with the ACD, and no further data for the inactive user is extracted from the ACD.

All future data that is extracted from the ACD for the repurposed ID will be associated with the new user.

## To repurpose an Avaya ACD ID:

1. In Webex WFO, navigate to the Users page, and then select the inactive user.
2. (Optional) Clear the **Activate this user** check box.
 

**BEST PRACTICE** Repurposing users' ACD IDs does not affect their activation status. If users are no longer active in Webex WFO, we recommend that you deactivate them before you repurpose their ACD IDs.
3. Click **Repurpose ACD ID**.
4. Click **Save**.
5. Configure the new user in the ACD. The next time Webex WFO syncs with the ACD, a new user with the repurposed ID will be added in Webex WFO.

## Restrict access to specific IP addresses

On the Network Access page, tenant administrators can enhance their tenant's security by controlling (or "whitelisting") which IP addresses users are allowed to access Webex WFO from.

Tenant administrators can add one or more IP address ranges, and users will only be able to access Webex WFO features if they log in to Webex WFO from an IP address within the configured ranges. If users log in to Webex WFO from an IP address that is not within the configured ranges, they will receive an error message and not be able to log in.

IP address ranges whitelisted by a tenant administrator apply to that tenant only. System administrators can whitelist additional IP ranges, and IP ranges whitelisted by a system administrator apply to all tenants in the system. If both a tenant administrator and a system administrator whitelist IP ranges, users will be able to access Webex WFO from both the tenant whitelist and the system whitelist.

Webex WFO currently supports whitelisting only for IPv4 addresses.

**NOTE** Tenant administrators who have been added by a system administrator can access their tenant from any IP address, even an IP address that is not whitelisted. This ensures that tenant administrators can access their tenant even if there is an incorrect whitelisting configuration.

## To enable whitelisting:

1. Select **Enable Whitelist Access Restriction**.
2. Click **Add IP Range**. The Add IP Range dialog box appears.
3. In the Name field, enter a unique name for the IP address range.
4. In the IP Range Start field, enter the first valid IPv4 address that you want to include in the range.

5. In the IP Range End field, enter the last valid IPv4 address that you want to include in the range.

**NOTE** You must enter an IP address in the IP Range End field. If you enter the same IP address that you entered in the IP Range Start field, users can only access Webex WFO from that IP address.

6. Click **Add**.
7. Click **Save**.

### IP Address Ranges table

The IP Address Ranges table enables you to monitor, edit, and delete the IP address ranges that tenant administrators have whitelisted.

**NOTE** System administrators can also whitelist IP address ranges. IP address ranges whitelisted by a system administrator apply to all tenants in the system, but the ranges that they whitelist do not appear in the tenant's IP Address Ranges table. For a complete list of whitelisted IP address ranges, contact your system administrator.

Field	Description
Name	The name of the IP address range.
IP Range Start	The first IP address that is included in the range.
IP Range End	The last IP address that is included in the range.
Actions	<ul style="list-style-type: none"><li>▪ Edit icon—Enables you to change the name, start, or end of an existing IP range.</li><li>▪ Delete icon—Removes an existing IP range from the whitelist. Any users who currently log in to Webex WFO from the IP addresses included in this range will no longer be able to access Webex WFO features from those IP addresses.</li></ul>

### Configure the Data Server

The Data Server Configuration page enables you to set up Data Server features based on a contact center's geographic location. For example, you can configure a contact center in New York differently than a contact center in California. This allows each site to operate with minimal WAN traffic.

**NOTE** WFM interprets all timestamps in Avaya historical data files as being in the tenant time zone.

## Data Server configuration in multi-tenant environments

Some data server features are not available in multi-tenant environments. In such an environment, the following configuration options do not appear on the Data Server Configuration page:

- Regional Data Server Reconciliation Settings
- Data Server Device Sync Settings
- Recording SIPREC Signaling Server Settings
- Recording CTI Signaling Server Settings
- Recording Capture Server Settings

## Field descriptions

Use the Data Server Configuration page to configure and maintain the data server features. For more information about how to configure the Data Server for a specific ACD (cloud only), see the following pages:

- [Data Server settings for a Cisco Webex Contact Center \(CJP\) ACD](#)

The fields on the Data Server Configuration page are described below.

## Select Data Server Configuration

Select the URL for the contact center data server whose regional features you want to configure.

## Display Name

Enter the display name of the data server you selected.

## Regional Data Server ACD Sync Settings

Select the Enable Sync check box to enable ACD synchronization on the regional data server, and then use the Available and Assigned panes to assign servers to ACD synchronization.

## Regional Data Server ACD Capture Settings

Select the Enable Capture check box to enable ACD capture on the regional data server, and then use the Available and Assigned panes to assign servers to ACD capture.

## Regional Data Server Real-Time Event Settings

Select the Enable Real-Time Events check box to enable real-time events on the regional data server, and then use the Available and Assigned panes to assign servers to real-time event capture.

## Regional Data Server Staged Upload Settings

Select the Enable Staged Upload check box to enable staged uploads on the regional data server, and then configure the tenant’s staged upload settings. For more information about Stage Upload, see [Configure staged upload](#).

**NOTE** Enabling this component alone does not cause agent PCs to use Stage Upload. Agents must also be associated with the Staged Upload Data Server through Teams or the IP Address Filter and one or more correctly configured rules in the QM Workflow Daily Event.

Field	Description
Location	<p>The UNC path to the storage location. A UNC path requires the following format:</p> <p style="text-align: center;">\\ComputerName\SharedFolder\Resource</p> <p><b>NOTE</b> If the UNC path is changed, the recordings on the previous staged upload location must be moved manually.</p> <p>The UNC path and user name must be accessible by both the Webex WFO Desktop installed on the agent’s desktops and the Data Server.</p>
Username	The user name of the user who administers the staged upload server.
Password	The password of the user who administers the staged upload server.

### Staged Upload IP Address Filter Configuration

This section is visible only when staged upload is enabled. Enter ranges of IP addresses in CIDR notation that include the IP addresses of the agent PCs with Smart Desktop that you want to use Staged Upload. Any agent whose PC has an IP address that is included in the IP Address Filter is associated with the Stage Upload Data Server.

**NOTE** Agents who are associated with the Staged Upload Data Server by IP address will use Staged Upload only if they are also associated with a correctly-configured QM Workflow Daily Event. For more information about Two-Stage Upload, see “Configuring the Staged Upload Component” in the *Design Guide for On-Premises, Hybrid Cloud, or Cloud Deployments*.

Enter an IP address range and click Save. You can add multiple ranges, which are listed in the pane above the entry field. Once added to the pane, you can also edit or delete a range. Click the pencil icon to edit the range, and click the X icon to delete the range.

### Regional Data Server Reconciliation Settings

Select the Enable Reconciliation check box to enable the reconciliation of the data server. Move the servers that are to be reconciled from the Available pane to the Assigned pane.

## Active Directory Sync

Select the Enable Sync check box to enable Webex WFO to match and sync Webex WFO users with Active Directory users. See [Connect to an Active Directory server](#).

## Data Server Device Sync Settings

Select the Enable Device Sync to enable syncing selected ACDs via the selected data server. Move the servers that are to be synced from the Available pane to the Assigned pane.

## Recording SIPREC Signaling Server Settings

Select the Enable SIPREC Signaling check box to enable SIPREC signaling services. Enter the host name or IP address of the data server where the SIPREC Signaling service is installed.

**NOTE** This location must be accessible by the installed instances of Smart Desktop.

## Recording CTI Signaling Server Settings

Select the Enable CTI Signaling check box to enable CTI signaling services. Enter the host name or IP address of the data server where the CTI Signaling service is installed.

**NOTE** This location must be accessible by the installed instances of Smart Desktop.

## Recording Capture Server Settings

Select the Enable Audio Recording check box to enable network recording instead of or in addition to endpoint recording (via Smart Desktop). Then enter the following information:

- Host name or IP address of the data server on which the capture server is installed. This address must be accessible by the installed instances of Smart Desktop.
- Enter the folder file path where recording files are to be temporarily stored before upload. This folder must be accessible by a user with Local System credentials.

## Media Import Server Settings

Select the Enable Media Import check box to enable the import of recording files from an external location. Move the ACDs that are the sources of the recordings from the Available to the Assigned pane.

## Regional Data Server GIS File Location

Enter the path to the directory from which the Data Server imports files. If you are using the default location (..\reports) under the Data Server installation directory, the field can remain blank.

## Local Web Service Settings

Select the Enable Local Web Service check box to enable API integration on this data server. If enabled, you have the option to enable the following:

- Cisco IP Phone Services Controls—Select this check box to allow Cisco-enabled recording controls from supported Cisco devices.

**NOTE** See [Configure Cisco IP Phone Services Controls](#) for the configuration procedure.

- Simplified Recording Controls API—Select this check box to use the native data server authentication for Cisco recording controls.

## SFTP Configuration

Enter the data required to configure your secure FTP server.

Field	Description
Host Name	The secure FTP server host name.
Username	The user name of the user who administers the SFTP server.
Password	The password of the user who administers the SFTP server.

## HRMS Configuration

Select the Enable HRMS Export to enable this data server to export data. If you have multiple data servers, only one should be enabled to export data.

### Data Server settings for an Amazon Connect ACD

#### To configure a Data Server for an Amazon Connect ACD:

1. Select the Data Server that you want to use for the Amazon Connect ACD.
2. Configure the following settings.

Setting	Configuration
Regional Data Server ACD Sync Settings	Select the <b>Enable Sync</b> check box, and then move the Amazon Connect ACD from <b>Available</b> to <b>Assigned</b> .

Setting	Configuration
Regional Data Server ACD Capture Settings	Select the <b>Enable Capture</b> check box, and then move the Amazon Connect ACD from <b>Available</b> to <b>Assigned</b> .
Regional Data Server Real-Time Event Settings	Select the <b>Enable Real-Time Events</b> check box, and then move the Amazon Connect ACD from <b>Available</b> to <b>Assigned</b> .
Media Import Server Settings	Select the <b>Enable Media Import</b> check box, and then move the Amazon Connect ACD from <b>Available</b> to <b>Assigned</b> .

3. Click **Save**.

### Configure Cisco IP Phone Services Controls

The Cisco IP phone services controls component enables Cisco recording controls from supported Cisco devices. Follow the steps detailed below to configure Cisco IP phone services in Webex WFO and Cisco Unified Communications Manager.

### Prerequisites

- You need to have Web Access over HTTP enabled on the devices where you plan to use the Cisco IP Phone Service Recording Controls.
- You need a Webex WFO Data Server.

### Page location

Application Management > Global > System Configuration > Data Server Configuration

### Procedures

#### Configure IP Phone Service recording controls in Webex WFO

1. Under **Local Web Service Settings**, select the **Enable Local Web Service** check box to enable API integration on this data server.
2. Select the **Enable Cisco IP Phone Service Controls** check box.
3. Configure all other fields as desired. See [Configure the Data Server](#) for more information.
4. Click **Save**.

### Enable and start the Webex WFO Data Server Web Services service

The Webex WFO Data Server Web Services service is disabled by default.

1. Navigate to **Services** in your Server Manager application. Right-click the **Calabrio ONE Data Server Web Services** service, and then select **Properties**. The **Properties** pop-up displays.
2. Within the **General** tab, select **Automatic** from the **Startup type** drop-down list.
3. Click **OK**. The **Services** page displays.
4. Right-click **Calabrio ONE Data Server Web Services**.
5. Click **Start**.

### Add a phone service in Cisco Unified Communications Manager

This procedure is conducted in Cisco Unified Communications Manager Administration. See “Phone Service Addition” in *Cisco Unified IP Phone Services Application Development Notes for Cisco Unified Communications Manager and Multiplatform Phones* for more information on configuring Cisco IP Phone Services.

1. Navigate to **Device > Device Settings > Phone Services**.
2. Enter the values for the parameters detailed below to configure for Cisco Recording Controls IP Phone Service.

Parameter	Value
Service URL	http://<Data Server IP Address>:8080/recordingcontrolsservlet
Service Category	XML Service
Service Type	Standard IP Phone Service

### Subscribe a device to the phone service

To use a Cisco IP Phone Service a device must first be subscribed to it.

1. Navigate to the Phone Configuration screen. Select **Subscribe/Unsubscribe Services** from the **Related Links** drop-down list.
2. Select the service, then click **Next**.
3. Click **Subscribe**.

## Related topics

- [Configure the Data Server](#)

### Data Server settings for a Cisco Webex Contact Center (CJP) ACD

**NOTE** Webex WFO currently refers to Cisco Webex Contact Center (CWCC) as Cisco Customer Journey Platform (CJP).

#### To configure a Data Server for a Cisco CWCC ACD:

1. Select the Data Server that you want to use for the CWCC ACD.
2. Configure the following settings.

Setting	Configuration
Regional Data Server ACD Sync Settings	Select the <b>Enable Sync</b> check box, and then move the CWCC ACD from <b>Available</b> to <b>Assigned</b> .
Regional Data Server ACD Capture Settings	Select the <b>Enable Capture</b> check box, and then move the CWCC ACD from <b>Available</b> to <b>Assigned</b> .
Regional Data Server Real-Time Event Settings	Select the <b>Enable Real-Time Events</b> check box, and then move the CWCC ACD from <b>Available</b> to <b>Assigned</b> .
Media Import Server Settings	Select the <b>Enable Media Import</b> check box, and then move the CWCC ACD from <b>Available</b> to <b>Assigned</b> .

3. Click **Save**.

### Data Server settings for a Five9 ACD

#### To configure a Data Server for an Five9 ACD:

1. Select the Data Server that you want to use for the Five9 ACD.
2. Configure the following settings.

Setting	Configuration
Regional Data Server ACD	Select the <b>Enable Sync</b> check box, and then move the Five9 ACD

Setting	Configuration
Sync Settings	from <b>Available</b> to <b>Assigned</b> .
Regional Data Server ACD Capture Settings	Select the <b>Enable Capture</b> check box, and then move the Five9 ACD from <b>Available</b> to <b>Assigned</b> .
Regional Data Server Real-Time Event Settings	Select the <b>Enable Real-Time Events</b> check box, and then move the Five9 ACD from <b>Available</b> to <b>Assigned</b> .
(Five9 VCC recording only) Media Import Server Settings	Select the <b>Enable Media Import</b> check box, and then move the Five9 ACD from <b>Available</b> to <b>Assigned</b> .

3. Click **Save**.

### Data Server settings for a Serenova ACD

#### To configure a Data Server for an Eventide ACD:

1. Select the Data Server that you want to use for the Serenova ACD.
2. Configure the following settings.

Setting	Configuration
Regional Data Server ACD Sync Settings	Select the <b>Enable Sync</b> check box, and then move the Serenova ACD from <b>Available</b> to <b>Assigned</b> .

3. Click **Save**.

### Connect to an Active Directory server

You can use a connection to an Active Directory (AD) server in your environment for user authentication, sync, or both.

To unlink synced users, go to [Unlink synced users](#).

### Page location

Application Management > Global > System Configuration > Active Directory Configuration

## Prerequisites

- At least one configured AD domain exists.
- Each AD domain has at least one configured user path.
- The Webex WFO server is in the same domain as the user.

## Procedures

### Configure Active Directory

**NOTE** For more information about any of the fields on this page, go to [About Active Directory configuration](#) in the *Webex WFO User Guide*.

1. Select **Create New Active Directory Configuration**.
2. Enter the Domain Name, Host Name, Port, User Name, and Password in the Active Directory Authentication section.
3. (Optional) Select the **Use SSL** check box, and then import the certificate.
4. (Sync only) Enter the Root DN, Organizational Units, and Synchronization Interval (Minutes) in the Active Directory Sync section.
5. (Sync only) Select the property to match the AD user with the Webex WFO user from the **User Profile Matching Property** drop-down list.

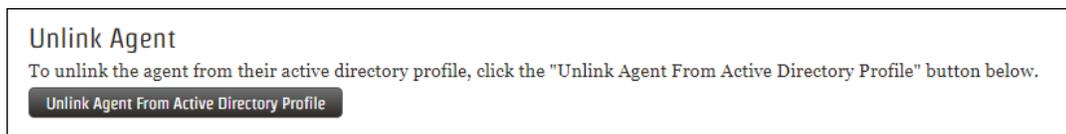
**NOTE** After the AD sync is set up, the matching property allows you to verify that the sync is working and unlink users. Select **Default** to link users by Windows login.

6. Click **Test Connection** to ensure that your AD connection is configured correctly.
7. Click **Save**.
8. (Sync only) Navigate to Application Management > Global > System Configuration > Data Server Configuration.
9. (Sync only) Select the data server for AD sync from the **Select Data Server Configuration** drop-down list.
10. (Sync only) In the **Active Directory Sync** section, select the **Enable Active Directory Sync** check box, and then move the AD server from **Available** to **Assigned**.
11. (Sync only) Click **Save**.

## Verify that AD sync is working

You can verify the AD sync after the synchronization interval has passed.

1. Navigate to Application Management > Global > User Configuration > Users.
2. Select a user who has the same identity as an AD user, based on the matching property that you selected in step 6 above. If the Unlink Agent section (below) appears on the screen, AD sync is working.



## Unlink synced users

When a Webex WFO user and an AD user are unlinked, the following happens:

- Changes to properties in the AD do not transfer to Webex WFO.
  - The user's Windows login can be edited.
  - Webex WFO retains the Recording user profile and all the values stored in it.
1. In Webex WFO, navigate to Application Management > Global > User Configuration > Users.
  2. If necessary, select the **Edit an existing user** radio button.
  3. Select the user to unlink from the **Select User** drop-down list.
  4. Click **Unlink Agent from Active Directory Profile** (in the Unlink Agent section). A warning message appears.
  5. Click **Yes**.
  6. Change the matching property field so that the Webex WFO user no longer has the same identity as the AD user.

The following table describes how to change the Webex WFO user, depending on which matching property you selected when you linked the users.

Matching Property	Change
First Name / Last Name	Change the value in the First Name or Last Name field.
Employee ID	Change or delete the value in the Employee ID field.

Matching Property	Change
Default	Change or delete the value in the Windows Login field.
User Name	Change the value in the User Name field.

7. Click **Save**.
8. (Optional) To permanently unlink users, change the equivalent properties in the AD. If you do not change the AD information, the Webex WFO user might be matched with the AD user again the next time the sync runs.

## Related topics

- [About Active Directory configuration](#) in the *Webex WFO User Guide*—Learn more about how Active Directory configuration works.

### About Active Directory configuration

The Active Directory Configuration page lets you create or edit a connection between Webex WFO and an Active Directory (AD) server in your environment. You can use this connection for user authentication, sync, or both.

Note the following parameters when configuring the connection with the AD server, whether for authentication, sync, or both:

- At least one configured AD must exist.
- Each AD domain must have at least one configured user path.
- The Webex WFO server must be in the same domain as the user.

### Authentication

AD authentication enables you to use AD users and passwords for authentication in Webex WFO. It is available only for on-premises deployments of Webex WFO.

### Sync

AD sync enables Webex WFO to sync Webex WFO users with AD users. When AD sync is configured, Webex WFO matches existing Webex WFO users with existing AD users. Then, whenever an AD user's first name, last name, employee ID, or email address is changed, Webex WFO also changes the corresponding values of the matched Webex WFO user.

## Configure Webex WFO | Configure the tenant

- AD sync does not add or deactivate Webex WFO users.
- If Webex WFO cannot match an AD user with any existing Webex WFO user, it does not add a new Webex WFO user.
- If an AD user who is synced with a Webex WFO user is deleted in AD, Webex WFO does not deactivate the Webex WFO user.

You can review which AD users are matched with Webex WFO users and which ones are not on the Active Directory Sync page (see [Review Active Directory sync results for QM and Analytics](#)).

### Matching users

The following list provides an overview of how Webex WFO matches users.

1. The administrator configures the AD connection, including the organizational units that contain the users to be synced.
2. The administrator selects one of four matching properties: Default, Employee ID, First Name / Last Name, or User Name. If the administrator selects Default, Webex WFO uses the Default matching property only. If the administrator selects First Name / Last Name, Employee ID, or Email, Webex WFO first uses the Default matching property, then uses the selected matching property.
3. Each matching property designates a field on the Users page and an equivalent property in AD. Webex WFO compares Webex WFO users and AD users based on the values that the field and the property contain. When exactly one user in Webex WFO and one user in AD have the same value, Webex WFO matches the users.

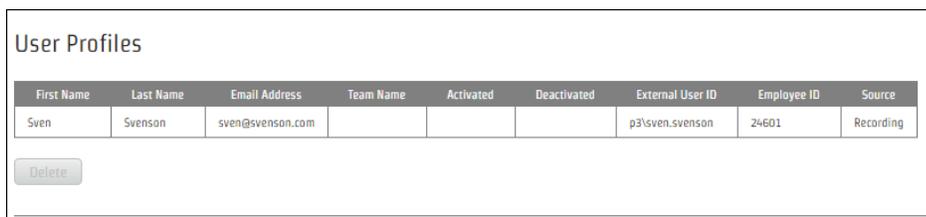
The following table describes which field and which equivalent property must have the same value for Webex WFO to match users.

Matching			
Property	Users Page	AD Property	Notes
Default	Windows Login	User logon name (pre- Windows 2000)	<p>If selected, Webex WFO matches users with the Default matching property only.</p> <p>AD has two user logon name properties: the “User logon name property” (&lt;user&gt;@&lt;domain&gt;) and the “User logon name (pre-Windows 2000)” property (&lt;domain&gt;\&lt;user&gt;). Webex WFO matches users on the “User logon name (pre-Windows 2000)” property only.</p> <p>If you edit the “User logon name (pre-Windows 2000)” property in AD after users are matched, Webex WFO unmatches the AD user from the Webex WFO user, regardless of the matching property that Webex WFO used to match them originally.</p>
First Name / Last Name	First Name	First name	<p>If selected, Webex WFO first matches users with the Default matching property, then with the First Name / Last Name matching property.</p>
	Last Name	Last name	<p>First Name / Last Name is not case-sensitive. If multiple Webex WFO users have the same First Name and Last Name as a single AD user, Webex WFO does not match the AD user with any Webex WFO user.</p>

Matching			
Property	Users Page	AD Property	Notes
Employee ID	Employee ID	employeeID	<p>If selected, Webex WFO first matches users with the Default matching property, then with the Employee ID matching property.</p> <p>If multiple Webex WFO users have the same Employee ID as a single AD user, Webex WFO does not match the AD user with any Webex WFO user.</p>
User Name	User Name	E-mail	<p>If selected, Webex WFO first matches users with the Default matching property, then with the User Name matching property.</p>

4. For each Webex WFO user whom Webex WFO matches with an AD user, Webex WFO does the following:

- Adds a Recording user profile, if the user does not already have one.



- Populates any of the following fields in the Recording user profile whose equivalent properties are configured in AD: First Name, Last Name, Email Address, External User ID, and Employee ID.
- Disables editing the Windows Login field on the User’s page.

5. If the Recording user profile has the correct precedence, Webex WFO transfers the values from the Recording user profile to the Webex WFO user.

**NOTE** If an Override user profile does not already exist, Webex WFO does not create one. This means that the values in the Recording user profile can overwrite the identity traits of a user who was manually created in Webex WFO, including first name, last name, user name,

and employee ID. For more information about user profiles, see [Manage user profiles for QM and Analytics](#) and [Configure global settings for QM and Analytics](#), “User Profile precedence.”

### Syncing matched users

When someone changes a matched user in AD, Webex WFO detects it and makes several changes. The following table summarizes these changes.

Change in AD	Resulting Change in Webex WFO
“First name” property is changed	First name in the Recording user profile is changed. If the Recording user profile has the correct precedence, the user’s first name is also changed on the User’s page.
“Last name” property is changed	Last name in the Recording user profile is changed. If the Recording user profile has the correct precedence, the user’s last name is also changed on the User’s page.
“employeeID” property is changed	Employee ID in the Recording user profile is changed. If the Recording user profile has the correct precedence, the user’s employee ID is also changed on the User’s page.
“E-mail” property is changed	Email address in the Recording user profile is changed. If the Recording user profile has the correct precedence, the user’s user name is also changed on the User’s page.
“User logon name (pre-Windows 2000)” property is changed	The user is unmatched.

### Unmatching synced users

If you no longer want a Webex WFO user to be linked with an AD user, you can unlink them. When a Webex WFO user is unlinked from an AD user, Webex WFO stops updating the user and the user’s Recording user profile when properties are changed in AD, and it enables the user’s Windows login for editing.

Unmatching a Webex WFO user does not delete the Recording user profile or delete any of the values stored in it, nor does it prevent the Webex WFO user from being matched with the AD user again the next time that sync runs. To permanently prevent Webex WFO from matching users, you must also change the Webex WFO user before sync runs again so that the Webex WFO user no longer has the same identity (as determined by the matching property that is currently selected) as the AD user.

## Field descriptions

The fields on the Active Directory Configuration page are described below.

### Active Directory Authentication

Field	Description
Domain Name	The domain of AD. This domain must be unique among any other AD domains. This domain must also match the domain of a user's Windows login as configured in the Windows Login field on the <a href="#">Manage users</a> page.
Host Name	The host name or IP address of the AD server.
Port	The port used to access the AD server. The default is port 389, or 636 if you are using SSL.  The Webex WFO server must allow socket communication on this port to be able to access the AD server for user authentication.
User Name	The Windows login of a user with read access to the AD database. This user name is used to verify configuration information and validate user paths.
Password	The password for the user with read access to the AD database.
Authentication Enabled	Select this check box to enable AD authentication. Leave this check box cleared if you are using AD sync only.
Use SSL	Select this check box to use Secure Socket Layer (SSL) for the connection to the AD server. Selecting this option changes the default port number in the Port field.
Certificate	(Appears when you select <b>Use SSL</b> ) The certificate that provides the AD identity and public key for SSL communication. Contact your AD

Field	Description
	administrator for the location of the certificate for AD. In many cases, this certificate is issued by the Certificate Authority on the AD machine.

## Active Directory Sync

Field	Description
Root DN	The domain component of the distinguished name of the organizational unit that stores the AD users who you want to sync with Webex WFO users.

### EXAMPLE

You want to sync AD users who are stored in an organizational unit that has the following distinguished name:

```
ou=Agents,ou=Users by Role,ou=User
Accounts,dc=example,dc=com
```

You enter `dc=example,dc=com` in the Root DN field.

Organizational Units	The distinguished name of the organizational unit that stores the AD users, minus the domain component. To specify multiple organizational units in the same domain, separate their distinguished names (minus the domain component) with a semicolon.
----------------------	--

### EXAMPLE

You want to sync AD users who are stored in an organizational unit (Agents) that has the following distinguished name:

```
ou=Agents,ou=User
Accounts,dc=example,dc=com
```

You enter the following text in the Organizational Units field:

```
ou=Agents,ou=User Accounts
```

Then, you decide you want to also sync AD users who are stored in another organizational unit, Supervisors. This organizational unit is in the same domain, and it has the

Field	Description
	<p>following distinguished name:</p> <pre>ou=Supervisors,ou=User Accounts,dc=example,dc=com</pre> <p>You edit the text in the Organizational Units so that it reads as follows:</p> <pre>ou=Agents,ou=User Accounts;ou=Supervisors,ou=User Accounts</pre> <p>The table on the Active Directory Sync page contains all AD users who are located in the organizational units that you designate, both those who are matched with Webex WFO users and those who are not. See <a href="#">Review Active Directory sync results for QM and Analytics</a>.</p>
Synchronization Interval (Minutes)	The frequency in minutes that Webex WFO syncs with AD. Webex WFO also updates the table on the Active Directory Sync page according to this interval. The minimum is 10 minutes.
User Profile Matching Property	<p>The matching property or properties that Webex WFO uses to determine whether a Webex WFO user and an AD user have the same identity. If you select Default, Webex WFO matches users with the Default matching property only. If you select First Name / Last Name, Employee ID, or Email, Webex WFO first matches users with the Default matching property, then matches users with the selected matching property.</p> <p>Changing the matching property does not unmatch users who are already matched.</p>

### Review Active Directory sync results for QM and Analytics

Use the Active Directory Sync page to check which users from Active Directory (AD) are and are not matched with Webex WFO users or to export the list of AD users as a CSV file. A **Matched** status indicates the AD user is matched with a Webex WFO user. A **Not Matched** status indicates the AD user is not matched with any Webex WFO user.

By checking the results of your Active Directory synchronization you can verify:

- Everything synced as intended.
- Users were matched who should be unmatched:

If you no longer want a Webex WFO user to be linked with an AD user, you can unlink them. When a Webex WFO user is unlinked from an AD user, Webex WFO stops updating the user and the user's Recording user profile when properties are changed in AD, and it enables the user's Windows login for editing. See [Connect to an Active Directory server](#) for more information on unlinking users.

- Users were unmatched but should be matched. If so, ensure active directory was correctly configured. See [Connect to an Active Directory server](#)

## Prerequisites

- A configured Active Directory
- The Administer Active Directory Authentication permission
- The Administer Tenant permission

## Page location

Application Management > Monitoring > Active Directory Sync

## Procedures

### Filter results

To narrow the results of your Active Directory synchronization, select the desired filter from the **Filters** drop-down list.

**NOTE** The filter does not affect which users are included in the CSV file.

### Export results

To export the synchronization results in a CSV file format, click **CSV Export**.

A CSV file is created that contains all AD users, both matched and unmatched, where:

- Active Directory Login is the "User logon name (pre-Windows 2000)" property of the AD user.
- SMTP Address is the "E-mail" property of the AD user.
- Status

**NOTE** Your AD configuration determines the users who appear in the table, the frequency that Webex WFO updates the table, and the properties that Webex WFO uses to match users.

## Related topics

- [Connect to an Active Directory server](#)
- [Create and edit users for QM and Analytics](#)
- [Manage roles and permissions for QM and Analytics](#)

## Configure storage

Configuring storage involves the following:

- Choose which storage location Webex WFO uses to store a team's audio and screen recordings and Analytics data, based on the age of the recording and data files.
- Add one or more storage locations outside of Webex WFO.
- Define how long certain types of WFM data are retained.
- Save or delete your storage preferences.

### Configure storage profiles for QM and Analytics

On the Storage Profiles page, you can choose which storage location Webex WFO uses to store a team's audio and screen recordings and Analytics data, based on the age of the recording and data files. This lets you keep older recordings and Analytics data that you do not need to access immediately in long-term, lower-cost storage locations while keeping newer recordings and data in storage locations that cost more but allow immediate or instant access.

Also, you can associate a compression rate for audio recordings with each storage location. This lets you lower your storage costs by converting audio recordings into higher-compression file types when they are moved into longer-term storage locations.

### Understanding storage profiles

A storage profile is assigned to a team either by default or manually, and the policies in that storage profile determine where the recordings and Analytics data associated with that team's users are stored.

You can select one storage profile as the default. The default storage profile is automatically assigned to all teams that have not had a storage profile manually assigned to them. If you change the default storage profile, the storage profile of all teams that have been assigned to a default storage profile also changes. Teams that have been manually assigned to a storage profile are not affected by the changing of the default storage profile.

Webex WFO can have up to two preconfigured storage profiles: Default Storage Profile and WAV Storage Profile.

For more information about how to manually assign a storage profile to a team, see [Manage teams for QM and Analytics](#).

### Understanding storage policies

A storage profile is made up of one or more policies. A policy controls the following:

- The storage location where the audio recordings, screen recordings, and Analytics data associated with a storage profile are kept
- How long the recording and data are kept in the storage location
- The compression rate of the audio recordings that are associated with a storage profile

Policies are evaluated, in order, from top to bottom. This order determines where Webex WFO moves the recordings and Analytics data after the recordings and Analytics data have been kept in a storage location for the configured length of time. If you select different Media Quality compression rates for a storage profile's policies, audio recordings are converted when they change storage locations.

A profile's default policy is always the policy at the bottom of the page. You can change the storage location and media quality of the default policy, but you cannot remove it, and you cannot edit its Audio, Screen, or Analytics fields.

Each policy contains the following fields.

### Storage Location

Once a policy takes effect, Webex WFO places the recordings and Analytics data associated with the storage profile in the policy's storage location.

**IMPORTANT** When you add a network storage location that is external to the platform server, you must run the Application, Broker, and Grid service as the same user with which you are accessing the external location.

Storage locations have the following types.

**NOTE** The system administrator configures the locations and types that are available.

- (\$\$)—The storage location is a medium-cost Amazon S3 bucket. Recordings and Analytics data stored in locations of this type can be accessed immediately.
- (\$\$\$)—The storage location is high-cost network storage. Recordings and Analytics data stored in locations of this type can be accessed instantly.

The order of a storage profile's policies determines the order that Webex WFO stores recordings and Analytics data in each storage location:

- Top—Webex WFO begins by storing recordings and Analytics data in this policy's storage location.
- Middle—Webex WFO stores recordings and Analytics data in a middle policy's storage location after it stores them in the storage location of the policy above but before it stores them in the storage location of the policy below.
- Bottom (Default)—Webex WFO finishes by storing recordings and Analytics data in this policy's storage location.

If you edit the storage location of an existing policy, all recordings and Analytics data in the policy's old storage location are moved to the new storage location.

## Audio

The Audio field controls how long (in days, months, or years) Webex WFO stores audio recordings in a policy's storage location. The maximum amount of time that Webex WFO can store audio recordings for all the policies in a profile appears in the Total Available Storage field.

The order of the policies in a storage profile determines the length of time that you can select.

- Top—Must be less than the amount of total available storage. It can be zero.
- Middle—Must be less than the total number of years, months, or days that you have assigned to the top policy and any other middle policies. It can be zero.
- Bottom (Default)—(Read only) Shows the amount of remaining total available storage. This number decreases by the total length of time that you assign to the policies above.

If you edit a top or middle policy by decreasing the length of time in the Audio field, Webex WFO moves all audio recordings that are out of compliance with the new setting to the storage location of the policy below.

## Media Quality

The Media Quality field controls the compression rate of audio recordings in a policy's storage location:

- Low Compression (WAV)
- Med Compression (Opus - Stereo)

- High Compression (Opus - Mono)

**NOTE** From Webex WFO Version 10.3.1 onward, Low Compression (WAV) is the default. Audio recordings created before the release of Version 10.3.1 are stored in Med Compression (Opus - Stereo).

If you select different media quality compression rates for the policies in a storage profile, audio recordings are converted when they change storage locations. It is recommended that you order the policies in a storage profile so that audio recordings are converted from a lower to a higher compression rate. Webex WFO can convert audio recordings from a higher to a lower compression rate, but doing so does not improve the quality of audio recordings.

The following list describes the recommended Media Quality settings, based on the order of the policies in a storage profile:

- Top—Select a compression rate that is the same as or lower than any storage policy below.
- Middle—Select a compression rate that is the same as or higher than the compression rate of any policy above and the same as or lower than the compression rate of any policy below.
- Bottom (Default)—Select a compression rate that is the same as or higher than any storage policy above.

If you edit the compression rate of an existing policy, all audio recordings in the policy's storage location are converted to the compression rate that you select.

## Screen

The Screen field controls how long (in days, months, or years) Webex WFO stores screen recordings in a policy's storage location. The maximum amount of time that Webex WFO can store screen recordings for all the policies in a profile appears in the Total Available Storage field.

The order of the policies in a storage profile determines the length of time that you can select.

- Top—Must be less than the amount of total available storage. It can be zero.
- Middle—Must be less than the total number of years, months, or days that you have assigned to the top policy and any additional middle policies. It can be zero.
- Bottom (Default)—(Read only) Shows the amount of remaining total available storage. This number decreases by the total length of time that you assign to additional storage policies.

If you edit a top or middle policy by decreasing the length of time in the Screen field, Webex WFO moves all screen recordings that are out of compliance with the new setting to the storage location of the policy below.

## Analytics

The Analytics field controls how long Webex WFO stores Analytics data in a policy's storage location. The maximum amount of time that Webex WFO can store Analytics data for all the policies in a profile appears in the Total Available Storage field.

The order of the policies in a storage profile determines the length of time that you can select.

- **Top**—Must be less than the amount of total available storage. It can be zero.
- **Middle**—Must be less than the total number of years, months, or days that you have assigned to the top policy and any additional middle policies. It can be zero.
- **Bottom (Default)**—(Read only) Shows the amount of remaining total available storage. This number decreases by the total length of time that you assign to additional storage policies.

If you edit a top or middle policy by decreasing the length of time in the Analytics field, Webex WFO moves all Analytics data that is out of compliance with the new setting to the storage location of the policy below.

## Creating a new storage profile

The order that you add policies to a storage profile determines their order on the page. The default policy is always below all other policies. When you add a new policy, Webex WFO inserts it above the default policy and below any policies that you have added already. You cannot reorder policies after you add them.

### To create a new storage profile:

1. Select **Create a new storage profile**.
2. In **Name**, enter a unique name for this storage profile.
3. (Optional) If you want this storage profile to be automatically assigned to all teams that do not have a storage profile manually assigned, select **Default**.

**NOTE** Only one storage profile can be the default. When you make a storage profile the default, it replaces the current default storage profile.

4. Configure the default policy.
5. (Optional) Click **Add storage policy** for each policy that you want to add, and then configure the policies.

**NOTE** To create a policy that moves files without changing the file format, select **No change (move only)** from the **Media Quality** drop-down list. If you are working with the default storage profile, this option is not available for the top policy on the page. (This is

Because the top policy is the default, and the default policy needs to control storage, not movement.) For more information about how to configure policies based on their order, see [Understanding storage policies](#).

6. Click **Save**.

### Editing an existing storage profile

You can edit the storage policies in an existing storage profile, but you cannot reorder them.

#### To edit an existing storage profile:

1. Select **Edit an existing storage profile**.
2. Select the storage profile that you want to edit.
3. (Optional) If you want to change the name of the storage profile, edit the **Name** field.
4. (Optional) If you want this storage profile to be automatically assigned to all teams that do not have a storage profile manually assigned, select **Default**.

**NOTE** You cannot manually clear the Default check box on the current default storage profile. To change the default storage profile, select the Default check box on the storage profile that you want to make the default.

5. (Optional) Edit the policies that you want to change.

**NOTE** Editing an existing storage policy can cause Webex WFO to move or convert large numbers of audio recording, screen recording, and Analytics data files. For more information about how editing an existing storage policy can impact the files associated with a storage profile, see [Understanding storage policies](#).

6. Click **Save**.

#### To move files without changing the file format:

1. Select **Edit an existing storage profile**.
2. Select the storage profile from the **Choose Profile** drop-down list.
3. Select the files' destination from the **Storage Location** drop-down list.
4. Select **No change (move only)** from the **Media Quality** drop-down list.

**NOTE** If you are working with the default storage profile, this option is not available for the top policy on the page. If necessary, click + **Add Storage Policy** to add an additional storage policy that allows you to move files.

5. Click **Save**.

## Add external storage locations

The External Storage page lets you add one or more storage locations outside of Webex WFO. You can use these external storage locations for several purposes:

- Set the long-term extended storage of audio and screen recordings after they have reached the end of their retention period (see [Configure QM archive settings](#))
- Exporting audio and screen recordings in bulk (see [Export interactions in bulk](#))

Unlike the Webex WFO-hosted storage locations where you store audio recordings, screen recordings, and Analytics data during their retention period (see [Configure storage profiles for QM and Analytics](#)), your company needs to create and manage these external storage locations independently. You cannot associate external storage locations with a storage profile.

You can add two types of external storage locations to Webex WFO: Amazon S3 buckets or SFTP servers.

**NOTE** SFTP is an option for on-premises deployments only.

## Amazon S3 bucket

Before you add an Amazon S3 bucket as an external storage location, you need the following information:

- The name of your Amazon S3 bucket. This is where Webex WFO exports your files.
- The access key and secret key of an IAM user who is assigned to a policy that has these permissions for your S3 bucket: ListBucket, GetBucketLocation, and PutObject. Webex WFO accesses your S3 bucket with this user's keys.

### EXAMPLE

The following policy grants the required permissions. You can assign this IAM user to a similar policy.

```
{
  "Version": "<current policy language version>",
  "Statement": [
    {
```

```

    "Sid": "Bucket",
    "Effect": "Allow",
    "Action": [
        "s3:ListBucket",
        "s3:GetBucketLocation"
    ],
    "Resource": [
        "arn:aws:s3:::<name of your S3
bucket>"
    ]
  },
  {
    "Sid": "BucketContents",
    "Effect": "Allow",
    "Action": [
        "s3:PutObject"
    ],
    "Resource": [
        "arn:aws:s3:::<name your S3
bucket>/*"
    ]
  }
]
}

```

### Add an Amazon S3 bucket as an external storage location

1. Select **Create External Storage Location**.
2. In the **Name** field, enter a unique name for the S3 bucket.

**NOTE** This name identifies the external storage location in Webex WFO. It can be different from the name of the S3 bucket.

3. From the **Type** drop-down list, select **Amazon S3 (Immediate Access)**.

- Configure the AWS Storage Configuration section as follows.

Field	Description
Bucket Name	Enter the name of the S3 bucket. This name is case-sensitive.
Choose Region	Select the Amazon region where the S3 bucket is located.
IAM Access Key	Enter the access key ID of the IAM user who is assigned to a policy that grants the permissions required to access the S3 bucket.
IAM Secret Key	Enter the secret access key of the IAM user who is assigned to a policy that grants the permissions required to access the S3 bucket.
Role ARN	<p>The Amazon Resource Name (ARN) for the role in the customer's AWS account that grants access to the S3 bucket (or more generally, the AWS services) Webex WFO accesses. This role ARN should be in the standard AWS format:</p> <pre>arn:aws:iam::&lt;CUSTOMER_AWS_ACCOUNT_NUMBER&gt;:role/&lt;ROLE_NAME&gt;</pre>
External ID	<p>The unique ID in AWS used by Cisco when assuming the role in the customer's AWS account for cross-account role access. The field is a string that must have a minimum of 2 characters and maximum of 550 characters.</p> <div style="border-left: 5px solid orange; padding-left: 10px; margin-top: 10px;"> <p><b>BEST PRACTICE</b> It is recommended to start with an alphanumeric syntax that contains only hyphens as it is consistent with allowed values in Webex WFO.</p> </div>

- Click **Save**.

### Configure QM archive settings

The Archive Configuration page allows you to save or delete your QM archive preferences. Use this page if you want to keep audio and screen recordings after they have reached the end of their retention period. The files exported to the archive server will contain one CSV file and all the related audio and screen recordings. The screen and audio files are decrypted.

## Prerequisites

- External storage
- The Administer QM permission

## Page location

Application Management > QM > QM Contact Flows > Archive Configuration

## Procedures

### Configure QM archive preferences

1. Select a configured external storage location from the **External Storage** drop-down list.

**NOTE** External Storage is configured at Application Management > Global > System Configuration > External Storage.

2. Select a format from the **Video Format** drop-down list.

Listed are m4v and webM, the format options for video files only. *M4v* is a video container format similar to MP4. M4v files have the option of DRM copy protection. *WebM* video streams are compressed with the VP8 or VP9 video codecs.

3. Select a format for audio files only from the **Audio Format** drop-down list.

*WAV* audio files are lossless and uncompressed. *WebMA* audio streams are compressed using the Vorbis or Opus audio codecs.

4. Select an **Archive Time**. The time of day when the archive process runs. The format is HH:MM.

**NOTE** The archive process runs once a day only. If you change this setting to a later time after the process runs, it will not run at the new time until the next day.

5. Select an **Archive Mode** from the drop-down list.

Archive Mode options are Audio and Full. *Audio* exports the audio recordings only. *Full* exports audio and screen recordings.

6. Enter a **Filename Pattern**.

7. Click **Save**.

8. (Optional) Click **Delete** to remove your archive preferences.

## Related topics

- [Add external storage locations](#)
- [Configure storage profiles for QM and Analytics](#)

## Configure Quality Management

The QM menus in Application Management enable you to configure the basic parameters of Quality Management in your contact center. Configuring Quality Management involves the following:

- Configure settings for Quality Management that apply to all users.
- Configure QM for recording.
- Integrate Webex WFO with one or more external survey providers to distribute post-call customer surveys after a contact has ended and collect the responses.

### Configure QM global settings

Use the QM Global Settings page to configure settings for Quality Management that apply to all users. Changed settings do not take effect until the users log in again.

Note the following information about several fields on this page:

- **Screen Recording Extension**—When you enter a value in this field, after-call-work screen recording continues when a new call starts unless you select **Stop Extended Screen Recording on new call**. This additional screen recording can consume storage resources.
- **Root Audio Recording Retention Time**—To see audio root recordings on the Recordings page, use the Search Scope filter and select Root Calls.
- **Root Screen Recording Retention Time**—Screen root recordings never appear on the Recordings page.
- **First Calling/First Called**—The first calling number and the first called number are both captured at the start of a call. A number is not captured if its check box is cleared. Instead, the second calling number or the second called number is captured.
- **Display Contacts in User's Time Zone**—This check box controls the Date, Time, and Time Zone fields on the Recordings and Contact Queue pages. All time-and-date filters (for example, Time Range and Specific Date) always search for contacts in the time zone of the capture source, even if this check box is selected.

- Smart Desktop Client - Screen Recording Priority—After saving any change to this setting, you must log in to the server where the CTI service is running and restart the CTI service for the change to take effect.
- STUN/TURN Server—After you make any changes to this server, we recommend that you restart the recording clients (Smart Desktop Capture and Virtual Record Server).

### About screen recording priority

Smart Desktop Client - Screen Recording Priority allows you to select a preferred priority of which screen is recorded for screen monitoring when the same user is logged into both a thin client and an end-point (PC) concurrently. Meaning, the same user's AD login is used to sign into both an end-point and a thin client at the same time. Webex WFO registers **Thin Client Users** as Smart Desktop Client (SDC) connections to server operating systems such as Windows Server 2016. Webex WFO registers **End-Points Users (PC)** as SDC connections to desktop operating systems such as Windows 10. With screen monitoring, you can view an agent's screen activity, whether or not that agent is on a call. See [Monitor agents in real time](#) for more information about Live Screen Monitoring.

If the connection to a selected priority is lost, Webex WFO won't start recording on a different priority setting until the next active call.

**EXAMPLE** If **Thin Client Users** is selected as your screen recording priority, and the connection to your thin client is lost during a call, Webex WFO won't start recording on the lower, **End-Points Users (PC)**, priority until a new call starts.

**NOTE** If Screen Recording Priority is changed while an agent is on a call, the change does not affect that call but will take place with subsequent calls after the call has ended.

### Configure QM for recording

Configuring QM for recording entails the following:

- Set up a connection between Webex WFO and one or more ACDs.
- Access the Webex WFO Smart Desktop and Webex WFO Data Server installers available for your tenant.
- Configure at least one signaling source, one signaling group, one signaling server, one recording group, and your contact center devices.
- Monitor the status of the active and standby signaling and record servers in telephony groups.
- Configure and manage metadata fields in your system.

## Access Smart Desktop and Webex WFO Data Server installers

Use the Downloads page to access the Webex WFO Smart Desktop and Webex WFO Data Server installers available for your tenant.

To download an installer that you want, click the link for it.

Download	Description
Webex WFO Data Server, Webex WFO Smart Desktop	<p>The Data Server (CalabrioONEDataServerSetup_&lt;TenantName&gt;.exe) and Smart Desktop (CalabrioONEDesktopSetup_&lt;TenantName&gt;.exe) installers for this tenant. These installers are configured to connect to only the tenant that they are downloaded from. In multitenant environments, this means that they cannot be downloaded and transferred to another tenant.</p> <p>For more information about installing the Smart Desktop and Webex WFO Data Server, see the <i>Installation Guide</i> for your deployment of Webex WFO (on-premise, hybrid, or in the cloud).</p>
SCCM_Support.msi	<p>The <a href="#">Microsoft System Center Configuration Manager</a> (SCCM) installer, which can be used to install Smart Desktop on multiple PCs at once. For more information about using SCCM to install Smart Desktop, see the <i>Installation Guide</i> for your deployment of Webex WFO (on-premise, hybrid, or in the cloud).</p>

## Manage telephony servers

Use the Telephony Monitoring page to monitor the status of the active and standby signaling and record servers in telephony groups.

If you have a primary and backup signaling server, you can use this page to switch call processing to the backup server prior to performing maintenance on the primary server. At the beginning of this workflow, the primary server is in Active status, and the backup server is in Standby status.

**NOTE** Only servers in Active/Standby pairs can be placed in maintenance mode.

### To place a server into Maintenance mode:

1. Select a telephony group.
2. Select the server you want to put into Maintenance mode.

**NOTE** The server to be placed into Maintenance mode must be in Active status.

### 3. Click **Maintenance**.

When you click Maintenance, the backup server changes from Standby mode to Active mode, and the active server changes from Active mode to Draining mode. The calls that were already on this server continue to be processed until done (“draining” the server), at which time the server goes into Maintenance mode. New calls are directed to the new active server, which begins processing them.

Once the server is in Maintenance mode, maintenance can be performed and the server rebooted if necessary. When maintenance is complete, the server goes into Standby mode.

### To activate a server in Standby mode:

1. Select the server in Standby mode that you want to activate.
2. Click **Active**.

When you click Active, the server changes from Standby mode to Active mode, and the active server changes from Active mode to Draining mode. The calls that were already on this server continue to be processed until done, at which time the server goes into Standby mode. New calls are directed to the new active server, which begins processing them.

## Field descriptions

The Telephony Monitoring page displays the status for both signaling servers and recording servers. The fields in these sections are defined in the tables below:

Field	Description
Filters	Select a telephony group from the drop-down list.
Component	The type of server: signaling or recording.
Priority	The priority of the server: Primary, Secondary, or Backup.
Server Name	IP address or server name of the signaling or recording server.
Group	Name of the signaling or recording group.
	<div style="background-color: #0070c0; color: white; padding: 2px;"><b>NOTE</b></div> The name of the group should indicate whether the group is a signaling or recording group.
State	Indicates if the server is connected or not connected.
Status	Current status for the server:

Field	Description
	<ul style="list-style-type: none"> <li>▪ Active = Server is active and processing calls.</li> <li>▪ Inactive = Server is not active.</li> <li>▪ Standby = Server is running and ready to be activated.</li> <li>▪ Draining = Server is processing data in queue and not accepting new data.</li> <li>▪ Maintenance = Server is down for maintenance.</li> </ul>
Calls	Number of calls being processed by each server.
Last Updated	The date and time the server information was updated in the table displayed in GMT.
Maintenance Status	Current maintenance status for the signaling or recording server: <ul style="list-style-type: none"> <li>▪ Active = Server is active and processing calls.</li> <li>▪ In Maintenance = Server is in maintenance.</li> </ul>

### Manage metadata fields

The Metadata Manager page is used to configure and manage metadata fields in your system.

Metadata allows you to add information to a customer conversation. The metadata can be captured from your ACD and other applications to pass the data to the following APIs:

- Schedule Details by Agents and Date API
- Shifts by Agent API

Webex WFO also displays these metadata fields in the Contact Information tab on the Media Player page.

Metadata fields you configure are displayed in a table. Use the table to view, edit, or delete a metadata field from your system.

**NOTE** Webex WFO supports up to 100 custom metadata fields per tenant.

### To add a new metadata field:

1. Complete the fields as described below
2. Click **Save**. The new metadata field appears in the table.

**To edit a metadata field:**

1. Double-click the metadata field in the table.
2. Edit the fields on the page as needed.
3. Click **Save**.

**To delete a metadata field:**

1. Double-click the metadata field in the table.
2. Click **Delete**.

The fields on the Metadata Manager page are described below.

Field	Description
Metadata Key	<p>(Automatically generated) A unique identifier for the metadata field, used by APIs. The metadata key is generated based on the text you enter in the Metadata Label field. Spaces are replaced with hyphens and “-key” is added at the end. For example, if you enter <b>example text</b> in the Metadata Label field, the Metadata Key field displays <b>example-text-key</b>.</p> <p>The Metadata Key field does not allow ampersands (&amp;) or equal signs (=). If those symbols appear in the Metadata Label field, they are removed automatically in the Metadata Key field.</p> <p>Max characters = 39.</p>
Metadata Label	The name associated with the metadata field that appears in search results and contact information.
Metadata Type	The type of information contained in the metadata field: date, hyperlink, number, or text.
ACD Data	<p>Identifies the metadata imported from the ACD. Webex WFO reconciles ACD data by matching contact information in Webex WFO with call information stored in the ACD and change the contact information in Webex WFO. The data is updated periodically.</p> <p>When you map metadata to ACD Data, you must select Text in the Type</p>

Field	Description
	field.
Data Explorer Key	(Optional) A unique identifier to map metadata with Data Explorer. You can map up to 20 metadata fields with Data Explorer.
Encrypted Check Box	(Optional) Select this option if you want to report on contacts based on custom metadata fields. When selected, Webex WFO encrypts the metadata when stored. The Encrypted check box is enabled only if the Exportable check box is cleared.  <div style="background-color: #0070C0; color: white; padding: 2px;"><b>NOTE</b> You cannot search for encrypted metadata.</div>
Exportable Check Box	When selected, you can export the metadata via Webex WFO or an API. This check box is selected by default.
Read Only	When selected, the metadata is read only. You are unable to add or edit metadata to a contact through Webex WFO.  <div style="background-color: #0070C0; color: white; padding: 2px;"><b>NOTE</b> If the metadata is ACD data, this check box is selected by default and is disabled.</div>

### Cisco metadata fields

The following metadata fields are available with Cisco ACDs.

Field	Description
AgentPeripheralNumber	Peripheral number of the agent who handled the call.  <div style="background-color: #0070C0; color: white; padding: 2px;"><b>NOTE</b> Can be null when the source or destination party is unmonitored or if the agent is not logged in.</div>
AgentSkillTargetID	Identifies which agent handled the call. This value is unique among all skill targets in the enterprise. It is taken from the Agent table in the Unified ICM central database. AgentSkillTargetIDs are generated automatically when the agent is first configured in the Agent Configuration window of Unified ICM Configuration Manager.  <div style="background-color: #0070C0; color: white; padding: 2px;"><b>EXAMPLE</b> 5001</div>

Field	Description
CallReferenceID	Unique identifier of the call in a Unified CM cluster.
CallGUID	Global unique call identifier.
DateTime	Date and time that the Termination_Call_Detail table record is generated by the Peripheral Gateway (PG). The Termination_Call_Detail table record is generated by the PG when the call has either physically left the PG (for example, IVR routes the call to an agent) or when wrap-up is completed for the call after the call has left the agent device (either by disconnect or through transfer completion).
DigitsDialed	<p>Digits dialed for an outbound call initiated on the ACD. These digits are not provided by all ACDs. Currently, only IVRs, the Aspect CallCenter, and the DEFINITY ECS provide values in the DigitsDialed field.</p> <p>If a call is translation routed, the receiving PG also reports this field even though the call is inbound.</p>
Duration	<p>Duration of the call in seconds. This is the time that the switch is processing the call.</p> <p>The Duration field comprises several fields of the Termination_Call_Detail table:</p> <p><b>LocalQTime + RingTime + TalkTime + WorkTime + HoldTime + DelayTime + NetQTime</b></p>
PeripheralCallKey	<p>Identifier assigned to the call by the peripheral (ACD, IVR). The range and type of value used in this field varies depending on the type of peripheral. This can be one of the following:</p> <ul style="list-style-type: none"> <li>▪ An original call, a transfer, and a consultative call as three separate calls (e.g., Call IDs 1001, 1002, 1003)</li> <li>▪ All three calls as a continuation of the same call (e.g., Call IDs 1001, 1001, 1001)</li> <li>▪ The original and transfer as the same call, but the consultative call as a second call (e.g., Call IDs 1001, 1002, 1001)</li> </ul>

Field	Description
	<ul style="list-style-type: none"> <li>▪ The original call as one call and the original and transfer as another call (e.g., Call IDs 1001, 1002, 1002)</li> </ul> <p>These values used might not be unique, depending on the peripheral's implementation. For example, the Aspect CallCenter and the DEFINITY ECS ACDs reuse identifiers in this field.</p>
ReworkeryKey	<p>Unique ID assigned to each record and used internally by Unified ICM/Unified CCE to track the record.</p>
RingTime	<p>The number of seconds that the call spent ringing at the agent's telet set before it was answered. Ring time occurs after any DelayTime and LocalQTime. For diverted calls (that is, calls that rang at an agent's telet set before being redirected on failure to answer), RingTime is the sum of the time that the call spent ringing at each telet set.</p>
TalkTime	<p>The cumulative time, in seconds, that the call was in a talking state on the destination device. TalkTime is a completed call time, not an agent state time.</p> <p>The cumulative time, in seconds, that the call was in a talking state on the destination device. TalkTime is a completed call time, not an agent state time.</p> <div style="border-left: 5px solid #0070C0; padding-left: 10px; margin-top: 10px;"> <p><b>NOTE</b> In the Termination_Call_Detail, Skill_Group, and Agent_Skill_Group tables, TalkTime does not include HoldTime; however, in the Services and Route tables, TalkTime does include HoldTime.</p> </div>
Variable1	<p>Variable used for call segmentation. Can also contain data entered during call wrap-up. This field maps to Aspect variable A.</p>
Variable2	<p>Variable used for call segmentation. This field maps to Aspect variable B.</p>
Variable3	<p>Variable used for call segmentation. This field maps to Aspect variable C.</p>
Variable4	<p>Variable used for call segmentation. This field maps to Aspect variable D.</p>

Field	Description
Variable5	Variable used for call segmentation. This field maps to Aspect variable E.
Variable6	Variable used for call segmentation.
Variable7	Variable used for call segmentation.
Variable8	Variable used for call segmentation.
Variable9	Variable used for call segmentation.
Variable10	Variable used for call segmentation.
WrapupData	Data entered by the agent during call wrap- up.

**NOTE** WorkTime is used to calculate Duration in the Termination\_Call\_Detail table and HandleTime in the Unified ICM Service, Route, and Call\_Type tables.

### About root calls and reconciliation

A root call is a recording made via Gateway Recording. This recording is not associated with any user, and must be reconciled to associate the root recording with an agent. Reconciled recordings can be used with Quality Management and Analytics.

For gateway recordings, a root call is a recording of the entire call from the time it enters the gateway until the time it leaves the gateway, including transfers and consultations that can involve multiple people.

**NOTE** You cannot use Gateway Recording with hoteling users. (See [Manage hoteling users for QM and Analytics.](#))

Reconciliation is the process of associating root calls with agents and screen recordings by looking at PBX/ACD Call Detail Records (CDRs), Webex WFO agent-to-device associations, and end user login events. The reconciliation process runs every 10 minutes against calls that are at least 20 minutes old. Reconciliation creates assigned calls that are copies of the root call segments that belong to specific agents. Webex WFO runs reconciliation automatically.

You can view root calls in the Recording Contacts window (see [Find interactions](#)).

### Configure telephony groups

A telephony group consists of at least one signaling source, one signaling group, one signaling server, one recording group, and your contact center devices. You can add backups for any of these items. Adding backups is optional, but it is recommended for resiliency purposes.

**NOTE** Some telephony group types do not support a backup signaling source.

Field	Description
Show Gateway Recordings Prior to Reconciliation	Select this check box to allow archive users in a Unified CCE, Unified CCX, or Avaya Aura CM environment to view root calls in Recordings 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 cleared by default.

**NOTE** Avaya’s Call Detail Recording records do not have complete information for conferences. Avaya will reconcile the complete call to the original agent, and depending on the call path, may not reconcile the conference portion to a second agent.

### Telephony group configuration details

Different configurations of telephony groups, signaling groups, and recording groups are supported based on the telephony group type. The following tables describe telephony group configuration and CTI service details based on telephony group type.

#### Unified Communications Manager

Telephony Groups	1 or more
Signaling Groups per Telephony Group	1 or more
Recording Groups per Signaling Group	1 or more
CTI Service Notes	Each CTI service in a signaling group can have a separately administered list of Unified CM CTI Managers to connect to for JTAPI.

#### Avaya SBC

Telephony Groups	1 or more
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**Avaya SBC (cont'd)**

Signaling Groups per Telephony Group	1 or more
Recording Groups per Signaling Group	1 or more
CTI Service Notes	N/A

**Avaya Aura CM**

Telephony Groups	1 or more
Signaling Groups per Telephony Group	1 or more
Recording Groups per Signaling Group	1 or more
CTI Service Notes	Each CTI service in the signaling group can be assigned a single AES DMCC Server.

**Other**

Telephony Groups	1 or more
Signaling Groups per Telephony Group	1
Recording Groups per Signaling Group	1
CTI Service Notes	N/A

**NOTE**

When configuring recording groups remember the following points:

- If you have users in a Gateway recording or CUBE recording environment who require screen recording, you must create a recording group that connects to a CTI server and has no Record servers assigned to it.
- You can assign one or more Record servers to a recording group. A recording group requires at least one primary Record server.

Signaling services exhaust the capacity of the primary Record servers before sending calls to secondary Record servers. If the primary signaling server is disabled (due to manual shutdown or system error), the secondary signaling server still sends calls to the primary Record servers unless the primary Record servers are also unavailable.

- A Record server can belong to only one recording group.
- You can move Record servers between recording groups.

To use AES encryption, you need to ensure that the AES connection is secure.

### Enable a secure AES connection:

1. Log in to the AES server (for example, <http://10.192.252.186>).
2. Navigate to Security > Certificate Management > CA Trusted Certificates, and export the Avaya HDTG Product Root.
3. Copy the Avaya HDTG Product Root certificate and paste into a file. Name the file `aes.cer`.
4. Move the `aes.cer` file to the `<data server>\bin\resources` directory.
5. Restart the CTI Service.
6. CTI service will check for `aes.cer`, then create an `Avaya.JKS` in the same folder, which it will then use to securely connect to AES.

After the system creates the `Avaya.JKS` file, login to Webex WFO and go to Application Management > QM Configuration > Telephony Groups.

7. Open the Avaya Telephony Group, select `Use Secure Connection`, and change the port to 4722.
8. Restart CTI service again.

### ***Setting the Avaya DMCC device password***

Use the fields in this section to configure the passwords for Avaya DMCC devices. Avaya passwords can be from three to seven digits in length. If you use more than seven digits in your extensions, you will need to configure passwords to be compatible with Avaya standards.

- Click **Use Device Extension** to set passwords if your extension is between three and seven digits.
- Click **Use Static Password** if you want to use a single password for all of your devices. When you click this button, QM displays a text box to allow you to add the three to seven digit password.
- Click **Use Custom Pattern** to select a custom device password pattern for setting the passwords of your Avaya devices based on your extensions. The password must be between three and seven digits. If your extensions have more than seven digits, this functionality allows you to convert your device numbers to acceptable Avaya passwords. Key the pattern in the Custom Pattern field.

The custom Avaya DMCC password pattern functionality uses two wildcard characters to represent your extensions:

- F—first (or leading) digits
- L—last (or trailing) digits

You can also insert static digits 0 to 9 in the password pattern.

Click the question mark for examples of using custom password patterns.

### Managing telephony groups

Use the Telephony Groups page to create, edit, and delete telephony groups, signaling groups, and recording groups.

### Configure a telephony group:

1. Enter a unique name for the telephony group.
2. Select the platform type for the telephony group. Additional configuration is required for some telephony group types.
3. Click **Add**.
4. Complete configuration under the **Telephony** tab according to the specified telephony group type.
  - Avaya Aura CM—See [Configure Avaya Communication Manager](#).
  - Avaya SBC SIPREC—See [Configure Avaya SBCE SIPREC](#).
  - Cisco Unified Communications Manager (Unified CM)—See [Configure Cisco Unified Communication Manager](#).
  - Genesys—See [Configure Genesys](#).
5. Click **Next** to continue to signaling group configuration.

### Configure a signaling group:

1. Enter a unique name for the signaling group.
2. Click **Add**.
3. Enter the configuration details for the signaling group (see [Signaling group configuration](#)).
4. Click **Next**.

### Configure a recording group and assignments:

1. Enter a unique name for the recording group.
2. Click **Add**.

3. Enter the configuration details for the recording group (see [Recording group configuration](#)).
4. Click **Save**.

**Signaling group configuration**

Field	Description
<b>Primary QM Signaling Data Server</b>	
Primary QM Signaling Data Server	<p>The data server of the primary signaling service. The drop-down list is populated with data servers configured with the CTI or SIPREC signaling (depending on the telephony group type).</p> <p>This signaling service can only belong to a single signaling group.</p>
Primary JTAPI CTI Manager primary signaling server	<p>(Unified CM only) The data server of the primary CTI Manager for the primary QM signaling data server. The CTI Manager is a service that runs on Unified CM and handles JTAPI events for every Unified CM in the cluster.</p> <p>The drop-down list is populated with the Unified CM servers configured under the Telephony tab.</p>
Backup JTAPI CTI Manager primary signaling server	<p>(Unified CM only) The data server of the backup CTI Manager for the primary QM signaling data server.</p> <p>The drop-down list is populated with the Unified CM servers configured under the Telephony tab.</p>
<b>Backup QM Signaling Server</b>	
Backup QM Signaling Data Server	<p>(Optional) The data server of the backup signaling service. The drop-down list is populated with data servers configured with the CTI or SIPREC signaling (depending on the telephony group type).</p> <p>This signaling service can only belong to a single signaling group.</p> <p>The signaling service remains on the backup server until you manually initiate failover to the primary server.</p>
Primary JTAPI CTI Manager backup signaling server	<p>(Unified CM only) (When configuring a backup signaling server only) The data server of the server for the primary CTI Manager for the backup</p>

Field	Description
	<p>QM signaling data server. The CTI Manager is a service that runs on Unified CM and handles JTAPI events for every Unified CM in the cluster.</p> <p>The drop-down list is populated with the Unified CM servers configured under the Telephony tab.</p>
Backup JTAPI CTI Manager backup signaling server	<p>(Unified CM only) Only available when configuring a backup signaling server. The name of the CTI Manager for the backup QM signaling data server.</p> <p>The drop-down list is populated with the Unified CM servers configured under the Telephony tab.</p>

**Recording group configuration**

Field	Description
<b>Recording Groups Assignment</b>	
Host Name/IP Address	A list of the available Record server host names/IP addresses and their assigned recording groups. Select the recording group and the priority for each Record server host name/IP address.

**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	To apply configuration settings
Avaya SBC	Avaya SBC	Restart the service.
	SIPREC	
	Network Recording Service	No restart required. The next polling period applies the configuration settings.

Telephony Group Type	Service	To apply configuration settings
Avaya Aura CM	CTI Service	Restart the service.
	Webex WFO (VoIP Devices)	Reload the VoIP Device window.
	Network Recording Service	No restart required. The next polling period applies the configuration settings.
	Sync service	No restart required. The next synchronization applies the configuration settings.
Unified CM	Recording CTI Service	Restart the service.
	Webex WFO (VoIP Devices)	Reload the VoIP Device window.
	Desktop Recording service	Restart the service.
	Network Recording service	Restart the service.  If you add a backup Recording CTI Service from the postinstall.exe while in Update Mode, you must restart the Network Recording service.

**Configure Avaya Communication Manager**

In an Avaya Communication Manager (CM) environment, you can configure the connection information for the Avaya Application Enablement (AE) Services and DMCC associated with the telephony group.

Field	Description
Associated Avaya ACD	The ACD with which this telephony group is associated.
Use Device Extension	Select this check box to use a device’s extension as the password for DMCC configurations. If you do not select the check box, the DMCC uses the default password for all devices entered in the Device Password field.

Field	Description
	The device password is also known as Security Code in the Avaya CM Station configuration.
Device Password	<p>The default password for all devices.</p> <p><b>NOTE</b> If you change a password, you must restart all associated signaling services.</p>
Enable Free Seating	Select this check box to record agents by user name or agent-ID instead of by a physical channel number.
Recording Skill Hunt Group	<p>The extension associated with the Hunt Group. A Hunt Group is a collection of users handling similar types of calls.</p> <p><b>NOTE</b> If you are using free seating, the Hunt Group must contain all the extensions that you want to record.</p>
Device Synchronization Data Server	The data server used to synchronize Avaya CM devices.
Switch Connection Name	<p>The switch name or IP address of the switch connection.</p> <p><b>NOTE</b> This field is case-sensitive.</p>
HOSTNAME / IP ADDRESS	<p>The host name or IP address of the AE Services Device, Media, and Call Control (DMCC). The DMCC controls the media (that is, it handles the RTP). The Monitoring and Recording CTI Service connects to it.</p> <p><b>BEST PRACTICE</b> Use a host name in all instances where you are required to specify a host name or IP address, if possible.</p>
Port	The port for the Application Enablement Services server. The default port number is 4721.
User Name	<p>The name of a user created in the AES Management Console that has the CT User attribute set to Yes.</p> <p><b>NOTE</b> If you change a user name or password, you must restart all associated signaling services.</p>

Field	Description
Password	The password for the account used to access the server.
	<b>NOTE</b> If you change a user name or password, you must restart all associated signaling services.
Generate CDRs from Signaling Events	Select this check box to start generating contact detail records (CDRs) for an existing ACD integration with the CTI server. Webex WFO does not use these CDRs for reconciliation unless you also select Use CDRs for Reconciliation check box.
Use CDRs for Reconciliation	Select this check box to use the CDRs generated by the CTI server for reconciliation instead of the CDRs imported from the ACD. This check box displays after you check the Generate CDRs from Signaling Events check box.

### Configure Avaya SBCE SIPREC

To configure Avaya SBCE for SIPREC recording in Webex WFO, you must configure a data server and a telephony group. A telephony group consists of at least one signaling source, one signaling group, one signaling server, one recording group, and your contact center devices. You can add backups for any of these items. Adding backups is optional, but it is recommended for resiliency purposes.

Different configurations of telephony groups, signaling groups, and recording groups are supported based on the telephony group type. For Avaya SBCE, the following table details the minimum quantity of groups that can be configured. The SIPREC service uses Port 5060.

Telephony Groups	1 or more
Signaling Groups per Telephony Group	1 or more
Recording Groups per Signaling Group	1 or more
CTI Service Notes	N/A

#### NOTE

When configuring recording groups remember the following points:

- If you have users in a gateway recording environment who require screen recording, you must create a recording group that connects to a CTI server and has no Record (Audio

Capture) servers assigned to it.

- You can assign one or more Record servers to a recording group. A recording group requires at least one primary Record server.

Signaling services exhaust the capacity of the primary Record servers before sending calls to secondary Record servers. If the primary signaling server is disabled (due to manual shutdown or system error), the secondary signaling server still sends calls to the primary Record servers unless the primary Record servers are also unavailable.

- A Record server can belong to only one recording group.
- You can move Record servers between recording groups.

## Prerequisites

- You need the **View UnReconciled Root Recordings** and **Configure Telephony Groups** permissions enabled.
- You need to configure a Webex WFO data server on Avaya SBCE.
- You need to Enable the UCID parameter in Avaya SBCE. See chapter 19 of [Administering Avaya Session Border Controller for Enterprise](#) for more information.

## Page Locations

- Application Management > Global > System Configuration > Data Server Configuration
- Application Management > QM > QM Configuration > Telephony Groups

## Procedures

### Configure a data server for SIPREC

**IMPORTANT** The settings in the step 2 table (Regional Data Server Reconciliation, Data Server Device Sync, Recording SIPREC Signaling Server, Recording CTI Signaling Server Settings, and Recording Capture Server settings) can be configured on one data server or they can be configured on separate data servers. If you choose to have more than one data server, ensure that all the step 2 settings are configured on at least one of your multiple data servers.

**IMPORTANT** The settings for **Recording SIPREC Signaling Server Settings** and **Recording CTI Signaling Server Settings** must be configured on different data servers because they would be on separate telephony groups.

**EXAMPLE** I have two data servers. On the first data server, I only have **Regional Data Server Reconciliation Settings** and **Data Server Device Sync Settings** configured. On the second data server I only have **Recording SIPREC Signaling Server Settings**, **Recording CTI Signaling Server Settings**, and **Recording Capture Server Settings** configured. On the second data server I do not have **Regional Data Server Reconciliation Settings** and **Data Server Device Sync Settings** configured like I do on the first data server. This configuration example works because I have all required settings configured even though the configuration is across two separate data servers.

1. Navigate to the **Data Server Configuration** page.
2. Configure the following settings.

Setting	Configuration
Select Data Server Configuration	Select the IP address of the SIPREC Data Server you want to configure for Avaya SBCE SIPREC.
Regional Data Server Reconciliation Settings	Select the <b>Enable Reconciliation</b> check box.
Data Server Device Sync Settings	Select the <b>Enable Device Sync</b> check box.  <b>NOTE</b> This check box is only necessary for reconciliation.
Recording SIPREC Signaling Server Settings	Select the <b>Enable SIPREC Signaling</b> check box, and then enter the hostname or IP address of the Data Server where this signaling service is installed.
Recording CTI Signaling Server Settings	Select the <b>Enable CTI Signaling</b> check box.
Recording Capture Server Settings	Select the <b>Enable Audio Recording</b> check box, and then enter the hostname or IP address of the Data Server where this capture/voice record server is installed.  Files are temporarily stored in the following location by default

**Setting****Configuration**

before they are uploaded in Webex WFO.

C:\Program Files\Common Files\Calabrio ONE\Data  
Server\recordings

3. Configure all other fields as desired.
4. Click **Save**.

### Create an Avaya SBCE SIPREC telephony group

1. Navigate to the **Telephony Groups** page.
2. Enter a unique name in the **Telephony Group Name** field.
3. From the **Telephony Group Platform Type** drop-down list, select **Avaya SBC SIPREC**.
4. Click **Add**. The Signaling tab displays.
5. Enter a unique name in the **Signaling Groups** field.
6. Click **Add**.
7. In the **Primary QM Signaling Data Server** field, select the IP address of the SIPREC Data Server you configured for the above “*Configure a Data Server for SIPREC*” procedure.
8. (Optional) In the Backup QM Signaling Data Server field, select the IP address of your desired backup Data Server.
9. Click **Next**. The Recording tab displays.
10. Enter a name in the **Recording Group Name** field, and then click **Add**. Select the recording group you named from the list of available recording groups.
11. In the **Recording Groups Assignment** table, locate the IP address of the Recording Capture data server you configured in the “*Configure a Data Server for SIPREC*” procedure, step 2 **Recording Capture Server Settings**.
12. Select the recording group you named from the **Recording Group** drop-down list.
13. In the **Priority** drop-list, select the desired priority. You must have at least one Primary priority assigned.
14. Click **Save**.
15. Restart your SIPREC and Record servers.

## Signaling Groups Field Descriptions

Field	Description
<b>Primary QM Signaling Data Server</b>	
Primary QM Signaling Data Server	<p>The data server of the primary signaling service. The drop-down list is populated with data servers configured with SIPREC signaling.</p> <p>This signaling service can only belong to a single signaling group.</p>
<b>Backup QM Signaling Server</b>	
Backup QM Signaling Data Server	<p>(Optional) The data server of the backup signaling service. The drop-down list is populated with data servers configured with SIPREC signaling.</p> <p>This signaling service can only belong to a single signaling group.</p> <p><b>NOTE</b> The signaling service remains on the backup server until you manually initiate failover to the primary server.</p>

## Recording Group Field Descriptions

Field	Description
<b>Recording Groups Assignment</b>	
Host Name/IP Address	<p>A list of the available Record server host names/IP addresses and their assigned recording groups. Select the recording group and the priority for each Record server host name/IP address.</p>
<b>Recording Groups Settings</b>	
Recording Groups	<p>A list of the existing recording groups and their associated signaling group/telephony group.</p>
Priority	<p>Set the priority for available recording groups.</p>

## Related Topics

- [Associate phones with agents, recording groups, and recording types](#) — After syncing devices, you can use this page to associate devices from your ACD with Webex WFO recording groups, recording types, and users.
- [Manage roles and permissions for QM and Analytics](#) — Learn more about the prerequisite permissions.
- [Configure telephony groups](#)
- [Configure the Data Server](#)

### Configure Cisco Unified Communication Manager

The Unified CM Configuration dialog box appears when you add or edit a telephony group with a Cisco Unified Communications Manager (Unified 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 is comprised of a set of Unified CM servers that share the same database and resources and have 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 (see [Telephony group configuration details](#)).

You can specify one or more Unified CM telephony groups. A Unified CM telephony group requires at least one CTI Manager.

## Installing JTAPI

During the installation process, Webex WFO installs the JTAPI.JAR file from the JTAPI client. Click **Download/Install JTAPI** on each of the signaling servers for the Unified CM telephony group.

The directory where Webex WFO installs the JTAPI.JAR file varies by version.

Version	Directory
10.4, 11.0	C:\Program Files\Common Files\Calabrio ONE\Data

Version	Directory
	Server\CtiSignalling\lib
10.3	C:\Program Files\Calabrio ONE\Data Server\CtiSignaling\lib
10.1, 10.2	C:\Program Files\Calabrio ONE\Data Server\ext

Optionally, you can manually install the JTAPI.JAR file by copying and pasting it in the correct directory.

## Field descriptions

Field	Description
Enable Network Recording	<p>Select this check box to enable network recording for the Unified CM telephony group. When the check box is selected, the Recording CTI service will listen for SIP messages.</p> <p><b>NOTE</b> The Recording CTI service and CUBE SIP CTI, Sonus SIPREC, or Acme SIPREC service will interfere with each other while listening for SIP messages if the Enable Network Recording check box is selected.</p> <p><b>EXAMPLE</b> You are recording voice through Gateway Recording (using the CUBE SIP CTI or Acme SIPREC service) and recording screen from a single server.</p> <p><b>NOTE</b> CUBE recording does not capture call direction. The Contact Direction for CUBE recordings will be shown as “Outbound.”</p>
SOAP AXL Access Username	<p>The AXL (Administrative XML Layer) authentication user name on the publisher for this cluster used to synchronize Unified CM devices. This user name is created when you configure Unified CM.</p> <p><b>NOTE</b> If you change a user name or password, you must restart the associated data server.</p>
SOAP AXL Access Password	<p>The AXL authentication password on the publisher. This password is</p>

Field	Description
	created when you configure Unified CM.
Version	The Unified CM version on the publisher.
JTAPI Access Username	The JTAPI user name for CTI. All phone devices, used for recording or monitoring, are associated with this application user (end user). The Recording CTI service logs into the Unified CM with this user. The user name must be between one and 32 alphanumeric characters.  <b>NOTE</b> If you change a user name or password, you must restart all associated signaling services.
JTAPI Access Password	The JTAPI user's password for CTI. This must be between one and 32 alphanumeric characters.
Device Synchronization Data Server	The data server that is used to synchronize devices.
Secure SIP Setup	Generate a certificate and keystore if you are using secure session initiation protocol (SIP). See <a href="#">To generate a certificate for secure SIP</a> .

### Telephony Group Servers

Publisher and Subscribers	A list of available server host names/IP addresses. You can enter one publisher Unified CM, and one or more subscriber Unified CMs.  Choose which host name/IP address is associated with the publisher CTI Manager service. All other Unified CMs are associated with a subscriber CTI Manager service.
Host Name	The host name or IP address of the publisher or subscriber (if any) Unified CM.  When using host names, verify the server can resolve the name of the subscribers. If the host name cannot be resolved, the Recording CTI service cannot log in.

### To generate a certificate for secure SIP:

1. Click **Generate SIP Trunk Certificate**. The Generate Certificate For Secure SIP dialog box appears.
2. In **Subject Name**, enter a unique name and store it in an easy-to-access location. When you configure the SIP Trunk Security Profile in CUCM, you must enter this name in the X.509 Subject Name field.
3. Click **Generate SIP Trunk Certificate**. A ZIP file containing two files downloads:
  - sip.keystore—This file contains the keystore. Copy the keystore, and then paste it in the following location on the Signaling Server:

C:\Program Files\Common Files\Calabrio ONE\Data  
Server\config

- sip\_certificate.pem—This file contains the public certificate. Upload the certificate to CUCM.

### Configure Genesys

Use this page to configure the connection information for a Genesys call environment.

**NOTE** You will need to copy Genesys library JAR files to the following folder:

C:\Program Files/Common Files/Calabrio ONE/Data Server\CtiSignaling\lib\

### Field descriptions

Field	Description
Hostname/IP Address	The host name/IP address of the telephony server.
Port	The port number for the telephony server.
Client Name	(Optional) The client name for the call environment.
Client Password	(Optional) The client password for the call environment.
User Data Key	The user data key defined in the Genesys system.
Metadata Name	The metadata field with which to associate the Genesys user data key. You must create a custom metadata field for this function. For more information about creating new metadata fields, see <a href="#">Manage metadata</a>

Field	Description
	<u>fields.</u>
Generate CDRs from Signaling Events	Select this check box to start generating contact detail records (CDRs) for an existing ACD integration with the CTI server. Webex WFO does not use these CDRs for reconciliation unless you also select Use CDRs for Reconciliation check box.
Use CDRs for Reconciliation	Select this check box to use the CDRs generated by the CTI server for reconciliation instead of the CDRs imported from the ACD. This check box displays after you check the Generate CDRs from Signaling Events check box.

### Add post-call surveys to contacts

You can integrate Webex WFO with one or more external survey providers to distribute post-call customer surveys after a contact has ended and collect the responses. Survey responses can provide valuable information about your customers' interaction experiences and general perceptions about your organization, as well as help you target contacts for evaluation. Responses can be reviewed in the Post-Call Survey tab in the media player, and the Recent Surveys widget. The survey score and other survey-related fields also appear in the Contact Table in Recordings and your Contact Queue. See "Importing Post Call Survey IVR Data" in the *Webex WFO Data Import/Export Reference Guide* for more information on importing using CSV files.

Surveys and survey questions are created using an external survey provider. You can integrate Webex WFO with the following survey providers:

- Qualtrics (online)
- SurveyMonkey (online)

### Configuring online survey providers

Online survey providers Qualtrics and SurveyMonkey deliver surveys to customers by email. Survey distribution requests and response retrieval are executed on a user-defined schedule. You can also import an IVR using the Generic Import Service (GIS).

#### NOTE

You must set up the regional data server GIS file location on the Data Server Configuration page before you import your generic IVR (see [Configure the Data Server](#)). Use this file location for import files:

C:\Program Files\Common Files\Calabrio ONE\Data Server\GIS\NewImport

After files are successfully imported, they will be moved to this folder:

...\GIS\NewImport\archives\

You must set up your online survey provider before configuring it with Webex WFO. To configure Webex WFO with a Qualtrics account, you must have the following:

- Each survey must have a configured “Embedded Data” question that has type cid.
- A configured Qualtrics account and user name
- A custom API token
- The Library ID for the account
- The Message ID for the survey-delivery message

To configure Webex WFO with a Survey Monkey account, you must have the following:

- A configured SurveyMonkey developer account and user name
- A developer API token
- The developer API key
- The developer API shared secret code

Generic IVR provider connections are created automatically when the IVR is imported. The post call survey administrator can specify which survey identifier the form uses. The following table lists the survey identifier fields:

Field	Description
contactId	The ID number of the contact.
associatedCallId	The ID number of the associated call. This is the default.

You must also create a custom email metadata field in Metadata Manager (see [Manage metadata fields](#)) with which to mark calls for survey distribution (see [Marking contacts for online survey distribution](#) below).

### To create a custom email metadata field:

1. Navigate to Application Management > QM Configuration > Metadata Manager.
2. Enter a unique value for key in the Metadata Key field (for example, “SurveyEmail”).

3. Enter a unique value for the label in the Metadata Label field. This can be, but does not have to be, the same as the Metadata Key.
4. Select **Text** from the Metadata Type drop-down list.
5. Select **None** from the ACD Data drop-down list.
6. Click **Save**.

For more information about creating a custom metadata field, see [Manage metadata fields](#).

### **To configure your online survey provider with Webex WFO:**

1. Choose **Create a new survey form** from the What Do You Want To Do? section.
2. Select your online survey provider (Qualtrics or SurveyMonkey) from the drop-down list.
3. Set the survey distribution request/response retrieval schedule, in minutes. This value determines how frequently Webex WFO checks for contacts that require a survey, and whether there is any new survey-response data available. If contacts awaiting a survey are found, a survey distribution request is sent to the survey provider according to your survey distribution request workflow.
4. Select the custom email metadata field that you created in the above section with which to mark calls for survey distribution.
5. Enter a unique name for this survey-provider connection.
6. Enter the survey-provider account information. This information must be collected from the survey provider.
  - a. Enter the user name and token for the configured survey-provider account.
  - b. (Qualtrics only) Enter the Library ID and Message ID.
  - c. (SurveyMonkey only) Enter the API Key and Shared Secret.
7. Click **Save**.

### **To test your survey provider connection and view surveys:**

1. Choose **Edit an existing survey form** from the What Do You Want To Do? section.
2. Click **Test Connection & View Surveys**. Upon successful connection, the surveys configured with the survey provider appear at the bottom of the page. You can click on each survey to view the individual questions.

After you set up and test your survey-provider connection, you must create a workflow to determine which survey should be requested for different contacts that have been marked for survey distribution. This is particularly useful when you have different survey providers and/or surveys for contacts.

You must also use the workflow to identify a survey question as the Voice of the Customer (VoC) question. The customer's response to this question determines whether the associated contact should be marked for evaluation.

### To set up a survey distribution request workflow:

1. Navigate to the Workflow Administration page.
2. Choose whether to create an end-of-call or daily event. An end-of-call event prepares the survey request immediately after a contact is marked for survey distribution. A daily event prepares the survey requests for all contacts marked for survey distribution each day.
3. Select the workflow rule to which you want to apply the survey form action. Select the default rule to use a single survey form for all contacts that are marked for survey distribution, or create and select a new rule to define the contact conditions for a particular survey form.
4. If you created a new workflow rule, define the contact conditions for the survey form you want to distribute.
5. Select the “Set the survey form to <survey form>” check box in the Actions section.
  - a. Select the survey from the drop-down list.
  - b. Select the Voice of the Customer (VoC) question. You can only select questions that are in a numeric-answer format.
  - c. Set the threshold to mark for evaluation. If the customer's response to the VoC question meets this threshold, the associated contact is marked for evaluation.
6. Enter the email information for delivering the survey.
  - a. Enter the Send From email address. This is the email address that the survey is delivered from.
  - b. Enter the Reply To email address. This is the email address that the survey recipient responds to. This is generally the same as the Send From address, but does not have to be.
  - c. Enter the Sender Name. This is the name that the email appears to be from to the recipient.
  - d. Enter the subject line for the email.
7. Click **Save**.

For more information about configuring workflows, see [Automate QM workflows](#).

### Marking contacts for online survey distribution

Once you have created the custom Email metadata field, configured one or more survey providers with Webex WFO, and set up a survey distribution workflow, you can mark a contact for online survey distribution by entering the customer's email address into the custom Email metadata field. This can be done by the agent using the Metadata command in the Recording Controls application or by any user with access to the custom metadata fields in the Media Player's Contact Information tab.

When you enter the customer's email address into this field, that contact is marked for survey distribution. According to the user-defined distribution request schedule, Webex WFO then sends a request to the survey provider for the appropriate survey to be sent to that address as determined by your configured workflows.

**NOTE** With SurveyMonkey, there might be a delay between the time a survey distribution request is received and when the survey is distributed.

## Related topics

- [Configure predictions](#)—Use survey data to predict contacts' net promoter score.

### Manage shrinkage categories

Shrinkage categories define the reasons agents are unavailable to handle contacts during their shift. Use the Shrinkage Categories page to create, edit, and delete an unlimited number of shrinkage categories.

Up to 10 shrinkage categories can then be associated with a shrinkage week (see Manage shrinkage weeks) and up to 12 shrinkage weeks can be assigned to a shrinkage scenario (see Manage shrinkage scenarios).

#### To create a new shrinkage category:

1. Select the option **Create a new shrinkage category**.
2. Enter a unique name for the new category.
3. Click **Save**.

#### To edit or delete an existing shrinkage category:

1. Select the option **Edit or delete an existing shrinkage category**.
2. Choose the shrinkage category you want to edit or delete from the **Select Shrinkage Category** drop-down list.
3. Edit the shrinkage category as needed, and then click **Save**, or click **Delete** to delete it.

## Configure Analytics

Use the Analytics Configuration page to set up tenant-wide Analytics parameters for dashboard sharing, length of data retention, or data capture intervals.

### Prerequisites

- You have the Administer Analytics and Administer Tenant permissions
- You need Analytics dashboard(s) available if you choose to share them

### Page location

Application Management > Analytics > Analytics Configuration

### Procedures

#### Share dashboards

Select the **Enable dashboard sharing** check box to share Analytics dashboards. Dashboards that are shared can be viewed by all users.

#### Configure the length of data retention

Use the **Analytics Data** fields to configure the length of time in days, months, or years that you want to retain Analytics data.

When the Index Maintenance task runs, Webex WFO clears Analytics data that is older than the retention period you set.

**NOTE** By default, the Index Maintenance task runs at 2:00 AM. The system administrator can reschedule the Index Maintenance task to run at a different time on the Task Management page.

Reducing a retention period after it has been initially set can result in the deletion of data. Increasing a retention period will result in a larger use of storage space. Changing this value should be considered carefully. The default maximum data retention period is 24 months. However, your system administrator can raise or lower this default value as required for your company.

#### Set desktop capture interval

Use the **Minutes** field under Desktop Capture Data Upload to choose the interval, in minutes, at which desktop capture data is uploaded. The default interval is 10 minutes.

**NOTE** Desktop capture data is uploaded at the specified interval even if the user is not logged in.

## Related topics

- [About Analytics dashboards](#)
- [Your homepage dashboard](#)
- [Manage roles and permissions for QM and Analytics](#)

## Administer and maintain Webex WFO

Administering and maintaining Webex WFO entails the following:

- Monitor the status of the configured Data Servers.
- Configure the gamification feature.
- Establish goals for the key performance indicators (KPIs) you want to make available for monitoring in a Data Explorer report or dashboard.
- Search, review, and identify changes made by users or the system in Webex WFO, forming an “audit trail.”
- Monitor client connections to the Webex WFO server.
- Monitor the status of scheduled bulk contact exports.
- Inform users about system events via notifications.

### Monitor Data Server status

The Data Server Status page allows you to monitor the status of the configured Data Servers. You can view if the connection status is currently connected or disconnected, and you can view the date and time of the last received event for each data server.

### Page location

Application Management > Global > Monitoring > Data Server Status

## Procedures

### View data server status

A list of configured data servers displays. Click **Refresh** to update the list. Among the fields for each data server are:

- **Connection** — The connection status of the configured Data Server, which can either be connected or disconnected.
- **Enabled Features** — A list of the configured Data Server configuration features found on the Configure the Data Server page.
- **Shared Data Server** — Displays the shared server ID from the database.
- **Actions** — Click **Edit** to go to the Configure the Data Server page.

## Related topics

- [Configure the Data Server](#)—Learn how to configure data servers for tenants.

### Download Data Server logs

On the Data Server Logs page, you can request log files from the data servers in your system, monitor the progress of the logs as they are compressed into a ZIP file, and download the logs when they are ready. If the Retrieve Data Server Logs Error and Retrieve Data Server Logs Success notifications are enabled, you can also download the logs from the notification you receive when Webex WFO has finished processing your request.

You can request logs for only one Data Server at a time.

## Prerequisites

You have the Agent Monitoring permission.

## Page location

Application Management > Global > Monitoring > Data Server Logs

## Procedures

### Download Data Server logs

The Data Server Logs page has three sections: Data Server Logs, Log Filter, and Log Requests.

1. In the Data Server Logs table, select the Data Server with the logs you want to retrieve.

Logs can have a **Connected** status of **True** or **False**. *True* indicates the Data Server is connected. *False* indicates the Data Server is disconnected. You cannot request logs for shared Data Servers or for Data Servers that have a Connected status of false.

**NOTE** In the **Version** field, if the version of the Data Server is earlier than 10.3.4, Webex WFO does not add your request to the Log Requests table. Instead, you receive a notification when the logs are ready to be downloaded. To be notified, you must be enabled to receive the Retrieve Data Server Logs Error and the Retrieve Data Server Logs Success notifications (see [Configure notifications](#)).

2. Configure the **Log FilterDate Range** (optional, leave the **Start Date** and **End Date** fields blank to request the entire log) and **File Type**.

The **File Type** options are as follows:

- **ctiService.dbg** — The debug log files for the CTI service.
  - **ctiService.log** — The log files for the CTI service.
  - **dataGathering.dbg** — The debug log files for the Data Gathering service.
  - **dataGathering.log** — The log files for the Data Gathering service.
  - **siprec.dbg** — The debug log files for the SIPREC service.
  - **siprec.log** — The log files for the SIPREC service.
  - **voiceRecordServer.dbg** — The debug files for the Voice Record Server service.
  - **voiceRecordServer.log** — The log files for the Voice Record Server service.
3. Click **Request Logs**. Webex WFO adds your request to the Log Requests table. Logs can have the following statuses: **Success**, **Timed Out**, and **In Progress**. You can also receive an error message. Check that the data server is connected if you receive an error message.
  4. Once your request has a status of Success, click the **Download** icon. The logs are downloaded as a ZIP file named data\_server\_logs\_<request number>.zip.

You can download the logs for up to three days after your request.

## Related topics

- [Configure the Data Server](#) —Learn more about data server configuration for tenants.
- [Monitor Data Server status](#)

## Configure gamification

The Performance Management section of Application Management is used by administrators to configure product performance features. Performance Management allows you to configure the gamification feature.

### Collect QM performance data for gamification

You can use agent performance data from QM evaluations in gamification.

## Prerequisites

You have the Administer Gamification and/or the Administer Schedules permission.

## Page location

Application Management > Global > Performance Management > Collect Performance Data

## Procedures

### Collect historical performance data immediately

Follow these steps if you are getting started with gamification and have preexisting data metrics.

1. Select the **Collect Data Now** option.
2. Select the performance metric to collect from the **Select Performance Metric** drop-down list.

 **NOTE** Quality gathers data from agent QM evaluations.

3. Enter the collection period start and end dates.
4. Select the group, team, or agents you want to capture data for. Use Ctrl+Click to select multiple agents or Ctrl+Shift to select a range of agents.
5. Click **Retrieve Performance Data**. The **Request Queued** dialog box opens.
6. Click **Close**.

### Set recurring data collection

Follow these steps to set the time every day when performance data is captured automatically.

1. Select the **Schedule Data Collection** option.
2. Select the performance metric to collect from the **Select Performance Metric** drop-down list.
3. Select the time of day to collect the performance data.
4. Click **Save**. A confirmation message displays.

## Related topics

- [Manage gamification performance categories for QM](#)—Specify the data that recurring data collection captures.
- [Configure gamification points for QM](#)—Create and manage gamification points.
- [Configure gamification levels for QM](#)—Create and manage gamification badge levels.

### Configure gamification levels for QM

Agents can be awarded new badges when they reach the specified point value for a level of achievement. The Gamification Levels page allows you to create level groups, associate a badge with each level, and define a period range for each level. The period range (in days) for each level allows you to control how far back to gather data for scoring.

You can define at least three levels and at most ten levels. Note that levels are numbered zero through nine. The point value for Level 0 is always defined as “- -,” which indicates any point values lower than Level 1, including negative point values.

### Configure gamification levels

1. Choose **Create new badge level**.
2. Enter a unique name for the level ranges.
3. Enter a period range (in days) from which you want to collect scoring data.
4. Select the level that you want to edit.
5. Enter the minimum point value for this level in the **Points** field.
6. Select the badge to award for this level.
7. Click **Save**.

### Field descriptions

Field	Descriptions
Select Level	("Edit or delete an existing badge level" only) The existing badge level you want to edit.
Level	The name of this set of badge levels.
<b>Level Range Definition</b>	
Enter the period range for this level	The number of days from which you want to collect scoring data.
Add Level	Add a badge level to the table.
Level	(Read-only) The badge level number.
Points	The number of points required to achieve this level.
Badge	The badge graphic associated with this level.

### Manage gamification performance categories for QM

The Performance Categories page allows you to define a gamification performance group and assign agents to that performance group.

#### To create a performance group and assign agents:

1. Choose **Create a new performance group**.
2. Enter a unique name for the performance group.
3. Select the performance metric by which to measure agents in this group.
4. Select the level group you want to use to define levels.
5. Select the point range configuration you want to use to define point values.
6. Select the agents you want to add to this performance group. You can select groups and teams and use the **Filter** fields to search by name. Use Ctrl+Click to select multiple agents.
7. Click **Save**.

**Field descriptions**

Field	Description
Select Performance Group	(“Edit or delete an existing performance group” only) The performance group you want to edit.
Performance Group Name	The name for this performance group.

**Group Settings**

Select Performance Metric	The metric you want to use to score agents. <ul style="list-style-type: none"> <li>▪ Quality—Agent performance data from QM evaluations</li> </ul>
Select Level	The set gamification badge levels for this performance group.
Select Point Range	The ranges of scores and assigned point values for this performance group.

**Performance Group Participants**

Group/Team/Agent	The groups, teams, and agents assigned to this performance group.
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**Configure gamification points for QM**

Gamification is based on agent achievements as measured by points. Use the Points page to manage point values. Agents can be awarded different numbers of points for their adherence and/or evaluation scores that fall into specified ranges.

You must define two or more ranges with associated point values. You can define points for up to 10 ranges.

**To configure point values:**

1. Choose **Create new point range values for a metric**.
2. Enter a unique name for the point range values.
3. Select the range in the table that you want to edit.
4. Enter an ending value in the **End** field. Start and end values can be positive or negative and are inclusive.

**NOTE** The value in the start field is read-only. For the first entry in the table, the start value "--" indicates anything below the first end value. For subsequent ranges, the start value is determined by the previous end value. For the last entry in the table, the end value "--" indicates anything above the last start value.

5. Enter a point value to assign for this range of scores. Point values can be positive or negative. A range's point value must be between the preceding and following ranges' point values.
6. Press **Enter**.
7. Click **Add Range** to add any additional rows to the table.
8. Click **Save**.

**EXAMPLE**

The table below is an example configuration of point ranges.

Range Start	Range End	Points
--	10	-5
11	20	-3
21	40	0
41	60	1
61	90	3
91	--	5

**Field descriptions**

Field	Description
Select Point Range	("Edit or delete existing point range values" option only) The existing set of point ranges you want to edit.
Point Range Name	The name for this range of scores and assigned point values.

**Point Ranges**

Start	(Read-only) The numerical value at the beginning of the selected range of scores. It is determined by the previous range's end value. This number
-------	---

Field	Description
	can be positive or negative and is inclusive.
End	The numerical value at the end of the selected range of scores. This number can be positive or negative and is inclusive. It must be greater than that range's start value.
Points	The point value earned for scores in the selected range. This number can be zero, negative, or positive. <p><b>NOTE</b> There is an important difference between “0 points” and “no points.” A value of “0 points” means that the agent scored a zero, based on the points system that was defined. A value of “no points” means that there was no metric data for an agent on a particular day and scoring could not be done.</p>
Add Range	Add an additional point range row to the table.

## Configure KPIs

The **Key Performance Indicators (KPIs)** page (Application Management > Administration > Key Performance Indicators (KPIs)) is used to establish goals for the KPIs you want to make available for monitoring in a Data Explorer report or dashboard.

All KPIs have a default goal, but that goal can be very broad and as such might not add value in reporting without refining it by adding specific goals more appropriate for your contact center. When you add a goal to a KPI, you can further refine the goals for specific areas of your contact center, such as a group or team. For example, the Adherence % goal for Team A might be different from that for Team B, since they handle very different types of interactions. A KPI can have multiple goals, based on your unique requirements.

A KPI is hierarchical in nature. That is, when you set a goal and do not specify a group or team, the goal applies to all groups and teams in your entire contact center. If you specify a group, the goal applies only to that group and all teams that belong to it. If you specify both a group and a team, then that goal applies only to that team. A more specific goal overrides a less specific goal.

### EXAMPLE

Group Minneapolis is comprised of Teams 1, 2, and 3. As shown in the graphic below, a goal of 400 calls taken per day has been set for the group and all its teams. However, Team 1 handles more complex issues, so a goal of 375 calls taken per day is set for Team 1 only. This goal overrides the goal set at the group level. Since no goals have been set specifically for Teams 2 and

3, they inherit the group’s goal of 400 calls taken per day.

# Calls Taken

Period: Day  Prior Periods: 30 Default Goal: 600

Group	Team	Service Queue	Goal Value	
Minneapolis <input type="button" value="v"/>	<input type="button" value="v"/>	<input type="button" value="v"/>	400 <input type="button" value="v"/>	<input type="button" value="Remove"/>
Minneapolis <input type="button" value="v"/>	Team 1 <input type="button" value="v"/>	<input type="button" value="v"/>	375 <input type="button" value="v"/>	<input type="button" value="Remove"/>

The KPIs available for configuration are built into Data Explorer as a type of measure. See [Create a report](#) and [Configure enterprise KPIs](#) for more information.

### Configure a KPI goal

1. Select the KPI you want to configure from the **Add KPI** drop-down list, and then click **Add KPI**. The KPI is added to the page in alphabetical order with one blank row.
2. Complete the fields to configure the KPI goal. The only field required is **Goal Value**. All others are optional. Not all fields are available for every KPI.

Field	Description
Period	(Optional) Select the unit of time (“period”) for the KPI.
Prior Periods	(Optional) Enter the number of prior periods for the KPI. For example, if the period selected is “Day” and the prior periods entered is “30,” then the trend comparison of the KPI is for the prior 30 days.
Default Goal	(Read only) The default goal of the KPI. This value is set with the KPI in Data Explorer. The default goal can be very broad and as such it might not add value in reporting without refining it by adding specific goals.
Group	(Optional) Select the group for the goal. The available groups are those configured on the Groups page (see <a href="#">Manage groups for QM</a>

Field	Description
	<a href="#">and Analytics</a> .
Team	(Optional) Select the team for the goal. The available teams are those configured on the Teams page (see <a href="#">Manage teams for QM and Analytics</a> ).
Form	(Optional) Select the evaluation form for the goal. The available forms are those configured on the Evaluation Form Manager page (see <a href="#">Manage evaluation forms</a> ).
Goal Value	(Required) Enter the goal for the KPI.

- If you want to add another goal for the KPI, click **Add Goal**. If you need to remove a goal row from the KPI, click **Remove** next to that row.
- When you have finished adding goals, click **Save**.

### Remove a KPI from the page

- Click the **X** icon beneath the KPI name to remove the KPI from the page. When you remove the KPI, it reverts to using its default goal in reporting.

**NOTE** If you remove every goal row from a KPI, the KPI is automatically removed from the page. A KPI must have at least one goal row to remain on the page.

### Audit user and system changes for QM and Analytics

The Audit page lets you search, review, and identify changes made by users or the system in Webex WFO, forming an “audit trail.” When a user makes a change in Webex WFO, Webex WFO adds an entry to the Audit Trail table. This entry records who made the change (the user) and what the user changed (the object). Webex WFO retains information on the Audit Trail table indefinitely.

**NOTE** “Users” include system tasks (for example, syncing with an ACD) as well as logged in Webex WFO users. “Objects” include anything that you can create or edit in Webex WFO (for example, roles).

**NOTE** Not all objects in Webex WFO are audited, and the audit trail excludes changes made by system tasks. You can select **Include system events** to include changes made by system tasks.

## Prerequisites

You must have supervisor or tenant permissions to view audit trails.

## Page location

Application Management > Global > Monitoring > Audit

## Procedures

You can use the Audit Filter to include only changes that meet specific criteria based on changes that specific users made or changes that were made to specific objects. The audit filter enables you to limit which entries Webex WFO displays in the Audit Trail table. The table contains an entry for each audited change in Webex WFO.

### Add a filter:

1. Click **Filter**. The filter pane appears.
2. Configure the filter fields.

You can filter the entries in the audit trail to find any or all of the following:

- Users who made changes. You can filter by first name, last name, group name, and Email address.
- APIs that were called to make changes. The audit trail includes all changes made by API calls to this endpoint.
- Dates that changes were made.
- Objects that were changed. The audit trail includes changed object types and how an object changed.

3. Click **Filter Results**.

**NOTE** To be included in the filter results, entries must match the values in every field that you configure.

### Remove a filter:

1. Click **Filter**. The filter pane appears.
2. Click **Clear filters**.

## View additional details about a change:

1. Click on a entry from within the Audit Trail table to view additional details about what was changed.
2. To return to the audit trail table, click the entry again.

## Best practices

- Wild card characters do not work within the fields. You must know the field value that you want to audit and enter the complete value name and be sure to spell the value name correctly. Abbreviated forms of a value name does not work.
- You use the Entity Label, Field Label, and Field Value fields to find specific objects that were changed so that the user who changed them can be identified. You must use these fields together. You cannot use them separately.
  - Entity Label—The changed object’s type.
  - Field Label—The identification method that you want to use to find the changed object.
  - Field Value—The unique identifier of the changed object.

### EXAMPLE

You want to find who added a permission to a role named “Agent,” and you want to search for this role by name. You take the following actions:

- In the Entity Label drop-down, you select **Role**.
- In the Field Label drop-down, you select **Name**.
- In the Field Value field, you type **Agent**.

The following examples show how to configure these fields to find specific core configuration and QM objects.

- The Core Configuration example demonstrates how to find a user who changed a common core configuration object.
  - Entity Label: Select **Person**.
  - Field Label: Select **Login**.
  - Field Value: Enter the user name of the user who was changed.

- To find which user changed common QM objects such as retention or an ACD configuration.

Retention:

- Entity Label: Select **Retention Policy**.
- Field Label: Select **Name**.
- Field Value: Enter the name of the retention policy that was changed.

ACD Configuration:

- Entity Label: Select **Server**.
- Field Label: Select **ID**.
- Field Value: Enter the Enter the ID of the ACD.

**NOTE** To find the ID of an ACD, navigate to **Application Management > ACD Configuration**. The ID of an ACD is included after its name in the **Select ACD** table.

- When viewing additional details about an object in the audit trail the details refer to objects in Webex WFO by an internal ID and not a name. The following table describes common phrases that refer to internal IDs and where to find those IDs in Webex WFO.

Common Phrase	Description
“A Person identified by the id of <ID>”	On the Users page, export users. In the exported CSV file, this ID appears in the User ID column.  <b>NOTE</b> This ID is an internal Webex WFO ID, not the user’s ACD ID or employee ID.
“A Group/Team identified by the id of <ID> was updated”	On the Groups page, export groups. In the exported CSV file, this ID appears in the Group ID column.
“A Group/Team identified by the id of <ID> was updated”	On the Teams page, export teams. In the exported CSV file, this ID appears in the Team ID column.

## Monitor connections to the Webex WFO server

Use the Desktop Monitoring page to monitor client connections to the Webex WFO server. From the Desktop Monitoring page you can discover the connection status of multiple tenants, download the logs of your Smart Desktop instance, and view other connection details to troubleshoot customer issues.

**NOTE** The Desktop Monitoring page does not provide screen monitoring functionality.

## Prerequisites

- You need a System Administrator license.
- One or more tenants must be configured.
- You need the Desktop Client Async Logs Error and Desktop Client Async Logs Success notifications configured to retrieve logs.

## Page location

Application Management > Global > Monitoring > Desktop Monitoring

## Procedures

### Filter connections

You can filter the information displayed in the table by tenant and the connection and activation status of the tenant's installed instances of Smart Desktop. You can also sort the information displayed by clicking a column header in the table.

1. Click **Show Filters**.
2. Select or clear the check box next to the desired filter options. By default, all options are selected and the time period is set for the last seven days.

### Retrieve Smart Desktop logs

With the **Get Logs** button, you can retrieve a ZIP file of the logs for each Smart Desktop instance that is connected to your tenant's Webex WFO server.

1. Locate the Smart Desktop instance you want logs from, and then click **Get Logs**. You will receive a notification when a ZIP file of the logs is ready to download.

**NOTE** To be notified, you must be enabled to receive the Desktop Client Async Logs Error and the Desktop Client Async Logs Success notifications (see [Configure notifications](#)). If these notifications are disabled, you will receive the following error message:  
You will need to subscribe to the ‘desktop client async logs success’ and ‘desktop client async logs error’ notifications to receive these logs.

2. Open the notification, and then follow the instructions to download the ZIP file.

## Field descriptions

The fields on the Desktop Monitoring page are described below.

Field	Description
Select Tenant	(System administrators only) Select the tenant whose connections you want to view. You can also select All to view connections for all tenants.
Select Client Version	Select the version of Smart Desktop you want to view. You can also select All to view connections for all versions of Smart Desktop.
Reset	Restores the default filter selections.
Export	Export the displayed desktop monitoring data as a CSV file called MachineDetails.csv. You are given the option to open the file or save it to your Downloads folder.
Status	The status of a specific installation of Smart Desktop. <ul style="list-style-type: none"> <li>■ Green—Connected and the installed version is the active version.</li> <li>■ Yellow—Connected and the installed version is not the active version.</li> <li>■ Red—Connected and there is an alert.</li> <li>■ Gray—Disconnected.</li> </ul>
Tenant Name	The name of the tenant.
Machine Name	The network name for the client.
Machine ID	The universally unique identifier (UUID) of the user’s machine.

Field	Description
IP Address	The IP address of the user's machine.
Activated Client Version	The Smart Desktop version currently running on the client's PC.
Installed Client Version	The latest Smart Desktop version downloaded to the agent's PC. If the Active Client Version and Installed Client Version match, the agent is using the most current version of Smart Desktop.
Connected	Indicates that Smart Desktop is currently connected to the Webex WFO server.
Logs	The Get Log button generates a request for the logs of the Smart Desktop instance.
Config	The <b>Edit Config</b> button allows you to view and edit the logging level, number of debug files, and the size of those debug files for this instance of Smart Desktop.

## Related topics

- [Configure notifications](#)

## Monitor scheduled bulk contact exports

Use the Bulk Contact Export Audit page to monitor the status of scheduled bulk contact exports.

**NOTE** You need the View Bulk Contact Export permission to see the exports created by other people in your organization.

## Prerequisites

- You have configured an external storage location for exported contacts to go to.
- You have created a recurring bulk contact export. (Create these on the Recordings page.)

## Page location

Application Management > Global > Monitoring > Bulk Contact Export Audit

## Column Descriptions

A bulk contact export has two stages: the *task* (optional) and the *upload*. During the *task* stage, Webex WFO converts files from the format in which they were recorded to the format in which they will be stored in the external storage location.

**EXAMPLE** Webex WFO initially records contacts as WAV files but converts them to MP4 files for storage.

If you do not set the export to convert files, Webex WFO skips this step. During the *upload* stage, Webex WFO moves the files to the external storage location.

The columns on this page are defined below.

Column	Description
Date	When the export was created.
Name	The name given to the export by the person who created it.
Export Status	The status of the export.
	<b>NOTE</b> If the status is Failed, the most common reason is problems communicating with the external storage location. Verify that it is possible to transfer files based on the credentials provided with a third-party tool (for example, Filezilla).
Task Count	The number of audio or video files that Webex WFO has attempted to convert, including failed conversions.
Tasks Queued	The number of files waiting to be converted to the export file format.
Tasks in Progress	The number of files currently being converted to the export file format.
Tasks Finished	The files that were successfully converted to the export file format.
Uploads Queued	The files that are waiting to be moved to the external storage location.
Uploads Succeeded	The files that were successfully moved to the external storage location.
Uploads Failed	The files that Webex WFO was unable to move to the external storage location.

### Access exported files

Exported files are located in the Exports folder on your configured storage location:

- If you have configured SFTP in your Archive Configuration, the files transfer to that server.
- If you have not configured SFTP in your Archive Configuration, the files are stored on your Network Storage location.

The files are ZIP files in CSV format. File names use the following naming convention: <“immediate” or “scheduled”>-<saved search name>-<datestamp>-<timestamp>

Configure network storage on the Storage Profiles page (Application Management > Global > System Configuration > Storage Profiles).

## Related topics

- [Add external storage locations](#)—Create locations for exported files to go to.
- [Export interactions in bulk](#)—Create bulk contact exports.
- [Configure QM archive settings](#)
- [Configure storage profiles for QM and Analytics](#)
- [Manage roles and permissions for QM and Analytics](#)—Learn more about the Bulk Contact Export and View Bulk Contact Export permissions.

## Configure notifications

Webex WFO can inform users about system events via messages called notifications.

The notifications can be in real time or delivered in summary form on a schedule you set up.

Notification recipients are organized in notification groups. The group defines the type of event that triggers a notification, the members of the group (just yourself or multiple members), how often you receive notifications, and the method used to send them.

Your access to what you can configure and the method of delivery depends on your login and the permissions configured for your role. Those permissions define which system events you can be notified about.

Login Type	What You Can Configure
Non-administrator users	Notifications for yourself via alert or email
Administrators	<ul style="list-style-type: none"> <li>▪ Notifications for yourself via alert or email</li> <li>▪ Notifications for a group via email</li> </ul>

## Field descriptions

The fields on the Notifications page are described below.

Field	Description
Notification Scope	Choose the scope of the notification group: notifications just for yourself or notifications for multiple users.
Notification Group Name	A unique name for the notification group.
Notification Types	Select the type of notifications you want to receive. The types available to you are determined by the permissions set for your role on the Roles page.
Real Time Notifications	Complete this section to receive notifications in real time.
Summary	Complete this section to receive notifications as summaries.
Delivery Method	Choose the method you want to use to receive notifications. If you opt for email delivery and the notifications are just for you, not for multiple users, the email address used is the one configured for you on the Users page in the Username field.
Email Distribution List	(“These notifications are sent to multiple users” option only) In the field below the list pane, enter an email address, and then click <b>Add</b> . Once in the list pane, you can click the pencil icon to edit an address or the X icon to delete an address.
Number of Notifications	Defines how many notifications Webex WFO sends for an event. The system reports some events as they occur, while others are reported every time the system polls. By specifying this number you can make sure you are not sent many notifications for the same event.
Summary Configuration	Select the conditions under which you want to receive a summary report.
Schedule	Use this section to configure the delivery of notification summaries.
Send Summaries Every <time period>	Enter how often Webex WFO sends a summary to you. The default time period is every 24 hours.
Starting Date and Time	The date and time the summary period starts.

## Notification types

There are three types of notifications:

- Informational—An expected event has taken place
- Warning—A condition exists that will lead Webex WFO to stop working if it is not corrected
- Error—A condition currently exists that could cause Webex WFO to stop working

Notifications can be sent in the following ways:

- Alerts displayed in the application
- Emails sent to a designated distribution list

## Tenant administrator and user notifications

This table lists the notification types available when you log into Webex WFO as a tenant administrator or other user.

Notification	Description and Solution
Agent Login (Support)	<p><b>Informational:</b> An agent has logged in to Webex WFO.</p> <p><b>Solution:</b> No action needed.</p>
Agent Logout (Support)	<p><b>Informational:</b> An agent has logged out of Webex WFO.</p> <p><b>Solution:</b> No action needed.</p>
Analytics Data Server Error (Support)	<p><b>Error:</b> The Analytics Data Server is not communicating with the Analytics grid server.</p> <p><b>Solution:</b> Check the Analytics Data Server logs, and verify its connectivity. Check if the database is accessible.</p>
Approaching low disk space (Support)	<p><b>Solution:</b> Free up used disk space or add additional storage.</p>
Approaching recording capacity (Support)	<p><b>Solution:</b> Add another Record server.</p>
Bulk Contact Export Error (Business)	<p><b>Error:</b> Webex WFO failed to transmit the bulk contact export file.</p> <p><b>Solution:</b> Verify the bulk contact export target location</p>

Notification	Description and Solution
	settings.
Bulk Contact Export Success (Business)	<p><b>Informational:</b> Your Webex WFO bulk contact export request was successful.</p> <p><b>Solution:</b> No action needed.</p>
Capture Plugin Data Server Error (Support)	<p><b>Error:</b> The capture Data Server is not communicating with the Webex WFO Application server.</p> <p><b>Solution:</b> Check the capture Data Server logs, and verify its connectivity. Check if the database is accessible.</p>
Cisco JTAPI Install Failure (Support)	<p><b>Error:</b> Your Cisco JTAPI installation has failed.</p> <p><b>Solution:</b> Review your Cisco JTAPI installation procedures and retry the installation.</p>
Cisco JTAPI Install Success (Support)	<p><b>Informational:</b> You successfully installed Cisco JTAPI.</p> <p><b>Solution:</b> No action needed.</p>
Client Installation Error (Support)	<p><b>Error:</b> Webex WFO was not installed correctly on desktop.</p> <p><b>Solution:</b> Verify the Smart Desktop installation. Refer to the <i>Customer Components Installation Guide for Cloud Deployments</i> for more information.</p>
Contact Goal All Users Completed (Business)	<p><b>Informational:</b> Alerts the goal creator and all users assigned to a Contact Goal when all tasks in the Contact Goal are completed.</p> <p><b>Solution:</b> No action needed.</p>
Contact Goal Completed (Business)	<p><b>Informational:</b> An agent has successfully completed his or her Webex WFO QM contact goals.</p> <p><b>Solution:</b> No action needed.</p>

Notification	Description and Solution
Contact Goal Created (Business)	<p><b>Informational:</b> You have successfully created a Webex WFO contact goal.</p> <p><b>Solution:</b> No action needed.</p>
CTI Plugin Data Server Error (Support)	<p><b>Error:</b> The CTI Data Server is not communicating with the Webex WFO Application server.</p> <p><b>Solution:</b> Check the CTI Data Server logs, and verify its connectivity. Check if the database is accessible.</p>
Data Server Connected (Support)	<p><b>Informational:</b> A Data Server has been connected to Webex WFO.</p> <p><b>Solution:</b> No action needed.</p>
Data Server Disconnected (Support)	<p><b>Error:</b> A Data Server is not communicating with the Webex WFO Application server.</p> <p><b>Solution:</b> Check the Data Server logs, and verify its connectivity. Check if the database is accessible.</p>
Data Server Missed Heartbeat (Support)	<p><b>Error:</b> A CTI Server, SIPREC Signaling Server, or Recording Server has been disconnected from the wfoadapter server for at least ten minutes.</p> <p>A tenant task checks the server connection every five minutes. If the connection fails two of these checks, Webex WFO sends this alert and continues to send the alert every five minutes until the server is reconnected.</p> <p><b>Solution:</b> Check that the server computer is running. Check that the server service is running. Check that the server computer is connected to the network and can access the wfoadapter server via the network.</p>
Delayed Storage Retrieval Complete (Business)	<p><b>Informational:</b> Your data in storage has been successfully retrieved.</p>

Notification	Description and Solution
Desktop Client Async Logs Complete (Support)	<p><b>Solution:</b> No action needed.</p>
Desktop Client Async Logs Error (Support)	<p><b>Informational:</b> Either of the following occurred:</p> <ul style="list-style-type: none"> <li>▪ A user appealed an evaluation that you completed.</li> <li>▪ A user appealed an evaluation completed by someone else, but you have both scope over the evaluated contact and the Edit Any Evaluation permission.</li> </ul> <p><b>Solution:</b> Review the evaluation and any comments entered by the user.</p>
Evaluation Audit (Business)	<p><b>Informational:</b> An evaluation you are associated with has been updated. This notification is sent to both the agent associated with the contact and the person who updated the evaluation.</p> <p><b>Solution:</b> No action needed.</p>
Evaluation Needs Approval (Business)	<p><b>Informational:</b> A Webex WFO QM user has completed an evaluation.</p> <p><b>Solution:</b> Save the evaluation.</p>
Exceeded low disk space (Support)	<p><b>Solution:</b> Free up used disk space or add additional storage.</p>
Exceeded recording capacity (Support)	<p><b>Solution:</b> Add another Record server.</p>
externalStorageLocationError (Support)	<p><b>Error:</b> During a run of the Archive Contact Handler task, Webex WFO encountered an error connecting to an external storage location.</p>

Notification	Description and Solution
	<p><b>Solution:</b> Check the configuration of your external storage location and test your connection to it.</p>
<p>Failed to Capture Desktop (Support)</p>	<p><b>Error:</b> A Webex WFO QM user cannot make desktop recordings.</p> <p><b>Solution:</b> Verify the Webex WFO Smart Desktop configuration.</p>
<p>Failed to Record Screen (Support)</p>	<p><b>Error:</b> The alert reads as follows:</p> <p><b>EXAMPLE</b> Desktop Event: &lt;version number&gt; - Screen Recording failed to start.</p> <p>This notification occurs when a user has failed to record screen for a single call. The user is configured correctly to record screen, and the Smart Desktop attempted to record screen, but the attempt was unsuccessful.</p> <p><b>Solution:</b> If the problem occurs consistently for a single device using Desktop Recording, verify the installation of the service on that PC. Uninstall the Smart Desktop, restart the PC, and reinstall the Smart Desktop on the affected PC. Contact Support if the problem persists.</p>
<p>Failed to Record Voice (Support)</p>	<p>This notification is caused either by an error originating from Smart Desktop or from CTI Signaling.</p> <p><b>Smart Desktop</b></p> <p><b>Error:</b> If Smart Desktop is the cause of the error, the alert reads as follows:</p> <p><b>EXAMPLE</b> Desktop Event: &lt;version number&gt; - Voice Recording failed to start.</p> <p>This notification occurs when a user has failed to record voice for a single call. The user is configured correctly to record</p>

Notification	Description and Solution
	<p>voice, and the Smart Desktop attempted to record voice, but the attempt was unsuccessful.</p> <p><b>Solution:</b> If the problem occurs consistently for a single device using Desktop Recording, verify the installation of the service on that PC. Uninstall the Smart Desktop, restart the PC, and reinstall the Smart Desktop on the affected PC. Contact Support if the problem persists.</p> <p>If this problem occurs on many phones in a Server Recording environment, verify the service is not running near capacity and that the configuration is correct. Contact Support if the problem persists.</p> <p><b>CTI Signaling</b></p> <p><b>Error:</b> If CTI Signaling is the cause of the error, the alert reads as follows:</p> <p><b>EXAMPLE</b> Signaling Server Event: Voice recording failed to start.</p> <p>This notification occurs when the CTI Signaling server could not initiate a call with an associated recording server. The “Details” line of the event message indicates one of two categories for this failure:</p> <p>“Details: No SIP INVITE”—This error occurs when the CTI Signaling server did not receive a SIP INVITE message from the CTI signaling JTAPI source.</p> <ul style="list-style-type: none"> <li>▪ <b>Solution:</b> If this problem persists, check the CTI data server logs to ensure the CTI data server is receiving SIP signaling messages from the CTI signaling source.</li> </ul> <p>“Details: No connected client”—This error occurs when the Signaling server is not connected to any recording server associated with the device.</p>

Notification	Description and Solution
	<ul style="list-style-type: none"> <li>▪ <b>Solution:</b> Check the CTI data server logs to find out what recording servers are associated with this device. Ensure they are running, and the signaling server and recording servers are connected.</li> </ul>
FTP Plugin Data Server Error (Support)	<p><b>Error:</b> Webex WFO was unable to transfer data from the data server.</p> <p><b>Solution:</b> Check the Data Server error logs. Verify communication with the data server.</p>
Major record server overload (Support)	<p><b>Solution:</b> Add another Record server or contact Webex WFO support.</p>
Major recording upload backup (Support)	<p><b>Solution:</b> Add another Record server or contact Webex WFO support.</p>
Minor record server overload (Support)	<p><b>Solution:</b> If you receive this notification frequently, add another Record server or contact Webex WFO support.</p>
Minor recording upload backup (Support)	<p><b>Solution:</b> If you receive this notification frequently, add another record server or contact Webex WFO support.</p>
My Scored Evaluation (Business)	<p><b>Informational:</b> An evaluation of a contact that you handled has been completed or edited.</p> <p><b>NOTE</b> If the evaluation requires approval, you receive this notification when the evaluation has been approved.</p> <p><b>Solution:</b> No action needed.</p>
No Phone Detected (Support)	<p><b>Error:</b> The Smart Desktop listened for a daisy-chained phone but did not find one after six minutes. This results in the service not recording. The most likely cause is the phone is not properly daisy-chained to the PC or the device is not configured to send its RTP traffic to the PC. This is a useful message for deployments or if the phones are continuously connected to the</p>

Notification	Description and Solution
	<p>PCs that record them. If PCs are routinely disconnected from the phones, you might want to consider disabling this problem.</p> <p><b>Solution:</b> Disable this problem if PCs are disconnected from phones. Otherwise, check the configuration of the device in Unified CM and verify ‘SPAN to PC Port’ is set to ‘Enabled.’ Check the physical connection between the PC and phone to verify they are daisy-chained correctly. See the <i>Webex WFO Installation Guide for Cloud Deployments</i> for information on configuring the hardware for Desktop Recording.</p>
<p>QM Voice Processing (Business)</p>	<p><b>Informational:</b> An agent has logged on to Webex WFO.</p> <p><b>Solution:</b> No action needed.</p>
<p>Reconciliation Completed (Business)</p>	<p><b>Informational:</b> This notification alerts you every time a reconciliation job completes successfully. It includes the job number and the job’s start and end time.</p> <p><b>NOTE</b> To assign this notification, you must have the Administer QM and the Receive Business Notifications permissions. Only assign this notification if your contact center has a recording architecture that requires reconciliation.</p> <p><b>Solution:</b> No action needed.</p>
<p>Recording Export (Business)</p>	<p><b>Informational:</b> Your contact export request completed successfully, and your contact is ready for download.</p> <p><b>Solution:</b> No action needed.</p>
<p>Recording Maximum Length Error (Support)</p>	<p><b>Error:</b> A recording has reached your organization’s maximum call length as configured on the QM Global Settings page.</p> <p><b>Solution:</b> Review the recording to determine whether the contact was actually longer than your max call length or</p>

Notification	Description and Solution
	<p>whether the recording length is an error and the recording should have stopped sooner. If the recording length is an error, that usually means that Webex WFO did not receive a call end event from your signaling provider. If you get this notification multiple times, there may be a problem with your signaling provider.</p>
<p>Retrieve Data Server Logs Error (Support)</p>	<p><b>Error:</b> Your request for Webex WFO Data Server logs could not be completed.</p> <p><b>Solution:</b> Verify the Data Server connectivity. Check if the database is accessible. if the issue persists, contact Support.</p>
<p>Retrieve Data Server Logs Success (Support)</p>	<p><b>Informational:</b> Your request for Webex WFO Data Server logs completed successfully.</p> <p><b>Solution:</b> No action needed.</p>
<p>Signaling Server Active (Support)</p>	<p><b>Informational:</b> A signaling server has become active.</p> <p><b>Solution:</b> No action needed.</p>
<p>Signaling Server Forced Standby (Support)</p>	<p><b>Error:</b> The signaling server has entered forced standby and is inactive.</p> <p><b>Solution:</b> Check the signaling server logs for further information.</p>
<p>Signaling Server Uncontrolled Failover (Support)</p>	<p><b>Error:</b> The active signaling server failed, and the standby signaling server is now active.</p> <p><b>Solution:</b> Check the signaling server logs for further information.</p>
<p>Signaling Server Maintenance Failover (Support)</p>	<p><b>Error:</b> The active signaling server entered maintenance mode, and the standby signaling server is now active.</p> <p><b>Solution:</b> Check the signaling server logs for further</p>

Notification	Description and Solution
	information.
Signaling Server Telephony Provider Failed (Support)	<p><b>Error:</b> The signaling server lost its connection to the telephony provider and is inactive.</p> <p><b>Solution:</b> Check the signaling server logs for further information.</p>
stagedUploadServerConnectionFailure (Support)	
Sync Plugin Data Server Error (Support)	<p><b>Error:</b> The Sync service has failed.</p> <p><b>Solution:</b> Perform the following steps:</p> <ol style="list-style-type: none"> <li>1. Verify that the Sync service is running.</li> <li>2. Verify that you can communicate with the server on which the Sync service is installed.</li> <li>3. Check the Sync service logs.</li> </ol>
Two Stage Plugin Data Server Error (Support)	<p><b>Error:</b> An error has occurred in the two-stage data upload process.</p> <p><b>Solution:</b> Check the Data Server logs. If the issue persists, contact Support.</p>
Unexpected Error on Desktop (Support)	<p><b>Error:</b> An unexpected error occurred executing a task.</p> <p><b>Solution:</b> Check the desktop debug file for the reason associated with this error. Restart the agent's desktop. If the issue persists, contact Support.</p>
Voice Packets Not Received (Support)	<p><b>Error:</b> Webex WFO has not received packets on the SPAN port.</p> <p>When you are monitoring an agent's customer contact, you can hear nothing. After 15 seconds, an error message indicates no packets are being received. Your attempt to record the agent's</p>

**Notification**

**Description and Solution**

customer contact results in an empty recording.

**Solution:** Verify the following:

- PC Port
- PC Voice VLAN Access
- Span to PC Port
- Device Security Mode

Also, verify the configuration of the agent's phone codecs.



# Manage users

## About QM and Analytics licenses

Licenses grant you legal access to use Webex WFO. You use licenses to link the functionality of Webex WFO with its roles and permissions.

### Licensing model

Cisco has a subscription billing with burst licensing model for Webex WFO-hosted deployments.

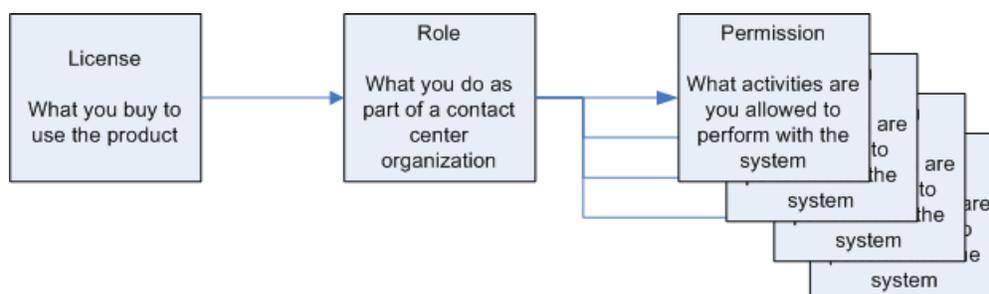
When you purchase a subscription to Webex WFO, you agree to what Cisco calls a “minimum monthly commitment”: a minimum number of seats bought at a particular price. If you use more seats than you agree to in your monthly commitment, Cisco bills you for each of them. This is called a “burst license.”

Cisco bills you periodically, on a monthly, quarterly, or annual basis.

**EXAMPLE** You have a minimum monthly commitment of 100 QM seats, which satisfies your requirements from February to October. Your contact center is busier during the holiday season (November through January). During this time, you use 150 QM seats, and for these four months you are billed at the burst license rate.

### Licensing, roles, and permissions

Licenses are linked to the roles that users have in the system. The access that users have to Webex WFO functionality is based on their role and the permissions associated with their role. For more information about assigning roles and permissions, see [Manage roles and permissions for QM and Analytics](#).



Each active Webex WFO user is associated with one or more licenses and can have one or more roles. Each individual license is called a seat. License seats are counted by the number of active users with that licensed role. All customers must have a set number of seats and licenses for each active user.

Active users can be licensed and have access to Webex WFO. Inactive users cannot be licensed or have access to Webex WFO. When you switch an active user to inactive, their license becomes available, and you can reassign it to other users.

There are two types of licenses:

- Data licenses
- Webex WFO Access licenses

### Data licenses

Webex WFO users who have capture functions (primarily contact center agents) are associated with a data license. The default agent role is automatically associated with this license type. Data licenses include the following:

- Call Recording (CR)—Users can be audio recorded and can review their own contacts.
- Quality Management (QM)—Users can be recorded and evaluated and can review their own contacts and evaluations (QM Data licenses include CR).
- Analytics—Users can be analyzed and can review analytics data created by their interactions.
- Webex WFO Suite—Users can be recorded, evaluated, scheduled, and analyzed.

**NOTE** Users with data licenses have limited access to Webex WFO functionality. They are restricted to reviewing their own data.

### Webex WFO access licenses

For each system, Cisco provides up to five Webex WFO access licenses. The Webex WFO access license provides a majority of permissions that allow these roles to have access to the full application.

### Multiple-role user example

A user has an evaluator role associated with a Webex WFO access license and an agent role associated with a Quality Management license to capture their own contacts. The evaluator role has some agent functionality and some supervisor functionality. This user is using two licenses: one for Quality Management and one for Webex WFO access. In this case, the number of seats available for the Quality Management license and the number of seats for the Webex WFO access license both decrease by one. If this user only requires voice recording, a Call Recording license could be used instead of a Quality Management license.

## Create and edit users for QM and Analytics

Choose “Create a new user” to create a new user in Webex WFO. You can also choose “Edit an existing user” to edit or deactivate any user already in the system. The fields on Create/Edit user pages are described below.

**NOTE** In synced systems, if you want to deactivate a user, you must delete the user in the ACD first and then deactivate the user in Webex WFO. The Sync service does not deactivate users from Webex WFO when they are deleted in the ACD, so it must be done manually.

Field	Description
Select User	(“Edit an existing user” option only) The user you want to edit. By default, the list displays only active users. To view both active and inactive users, select the “Show inactive users” check box.
First Name	The user’s first name.
Last Name	The user’s last name.
User Name	The user’s Webex WFO user name. You can enter either the user’s email address or a unique login name.
Windows Login	The user’s login name for Microsoft Windows. If you are using Active Directory, include the domain name:  <code>&lt;domain name&gt;\&lt;login name&gt;</code>
Employee ID	(Optional) The employee ID of the user. If you need to integrate with an HRMS that does not use an ACD ID or an email address as a unique identifier you can identify users by adding their employee ID in this field.
User Profiles	(Read-only) This table summarizes the user’s identity in external sources. See <a href="#">Manage user profiles for QM and Analytics</a> .
Activate this user	Select this check box to activate the user. The user cannot log in until the user account is activated.  Clear the check box to deactivate the user. The user cannot log in once the user account is deactivated.
Repurpose ACD ID	(Avaya ACD-synced users only) Click this button to remove the ACD ID association from an inactive user. This allows you to re-assign the ACD

Field	Description
	ID to a new user.
Unlink Agent	<p>(AD-synced users only) If you no longer want a Webex WFO user to be linked with an AD user, you can unlink them. When a Webex WFO user is unlinked from an AD user, Webex WFO stops updating the user and the user's Recording user profile when properties are changed in AD, and it enables the user's Windows login for editing.</p> <p>See <a href="#">Connect to an Active Directory server</a>.</p>
Creation Date	(Read-only) The date the user record was created.
Deactivation Date	<p>(Read-only) The date the user record was deactivated. As long as a record is active, this field is not visible. When this field is visible, it displays the date of the most recent deactivation.</p> <p>This field only appears when you clear the "Activate this user" check box.</p>
Roles	<p>To assign roles, you must have the Assign User Roles permission. If you do not have the Assign User Roles permission and you create a new user, Webex WFO automatically gives the new user the default agent role. Only users with the Assign User Roles permission can change this assignment.</p> <p>Select one or more roles for this user. In a synced system, the user is automatically assigned the agent role.</p> <p>A tenant administrator can assign the administrator role to an existing or new user. That user's scope cannot exceed the tenant administrator's scope. An administrator can only assign a scope that they themselves have. This applies to all levels, whether the role is a tenant administrator, group administrator, or team administrator.</p> <p>If a user is an active agent and is then assigned an additional role (for example, is promoted to supervisor), and that user is no longer required to work as an agent, you should deactivate the user's agent record and unassign the user's agent role. Otherwise, Webex WFO might not function correctly.</p>

Field	Description
Team	Assign the user to a team.
Associated Groups and Teams	<p>(QM and Analytics only) Select the groups and teams that are within the user's scope. You must select at least one group and one team. The user must belong to that group and team.</p> <p>Groups and teams are hierarchical. If a group is in a user's scope, all teams under that group are then in their scope.</p> <p>Group 1 consists of Teams 1 and 2. If you assign Group 1 to a user, Teams 1 and 2 are automatically in the user's scope. If you explicitly assign Team 1 and Team 2 to a user under Associated Teams, it does not change anything because the teams are already in the user's scope. Additionally, if you remove Team 1 from Associated Teams, Team 1 remains in the user's scope because Team 1 belongs to Group 1.</p>
QM Views	<p>To assign QM views, you must have the Edit QM Views permission.</p> <p>QM views are used to manage the scope of contacts that are filtered by the view (in addition to contacts returned by the user's group or team scope).</p>
Agent's Calls Require Reconciliation	<p>Select this check box if:</p> <ul style="list-style-type: none"> <li>▪ The agent uses gateway recording, not endpoint recording or Smart Desktop, for all audio recordings</li> <li>▪ The agent is not associated with a device that is listed on the Device Associations page.</li> </ul> <p>In this configuration, all the agent's calls must be reconciled in order to associate the call metadata with the recording.</p>
Display Time Zone	<p>We recommend that you select the user's local time zone.</p> <p>Display Time Zone defaults to the organization's time zone, which is configured on the Global Settings page (see <a href="#">Configure global settings for QM and Analytics</a>).</p>

Field	Description
	If the Display Contacts in User's Time Zone check box is selected, the user will also see the Date, Time, and Time Zone fields on the Recordings and Contact Queue pages in this time zone.
ACD Server	The ACD server in which the user is set up.

## Create an API user for Classic Webex WFO

If you plan to use Webex WFO APIs for third-party integrations, Cisco recommends that you create an API user account. You configure an API user the same as a system administrator, but the purpose of this user is to enable third-party applications to authenticate with Webex WFO.

**NOTE** To create this user, you must have the default system administrator role or a role with equivalent permissions. This role consumes one System Administrator license.

For more information on authorizing and authenticating a user with Webex WFO, see [Authorize API](#).

### Create an API user account

1. Start Webex WFO and log in as a system administrator.

**NOTE** If you are logging into the product for the first time, we recommend that you create an additional Administrative account.

2. Navigate to Application Management > Global > User Configuration > Users.
3. Select the **Create a new user** option and complete the following fields in the User Information section.
  - **First Name** and **Last Name**—Enter a first and last name that identifies the purpose of the user. For example, enter **API** as the First Name and **User** as the Last Name.
  - **User Name**—Enter a valid email address. This is the user's Webex WFO user name that will be used to log in.
4. Enter a password that meets your tenant's password complexity requirements in the **Password** field.
5. In the **Roles** field, assign the user to the default system Administrator role.
6. Set the **Team** field to Default Team. You can set this value to an alternate team if you prefer.

7. Select the Associated Groups and Teams that this account should have scoping over. You can select individual teams, a Group name, or a Tenant name as a group. Selecting a Tenant name highlights all teams within that group.
11. In the WFM Views field, assign **EnterpriseView** as the main view. This allows the user to see all users.
12. Click **Save** in the upper, right corner of the user interface.

## Import and export users for QM and Analytics

Select the “Import and export users” option to import new or edited users or export existing users. The import and export data is in CSV format.

### NOTE

The date format in the CSV files might be changed by a spreadsheet application such as Microsoft Excel to the format that is set in the application as the default. Be aware of this possibility and make sure that the date columns are configured so that the date format is correct. The supported date formats are:

- DD/MM/YYYY
- MM/DD/YYYY
- YYYY-MM-DD
- YYYY/MM/DD

Once you have configured how your import file fields are mapped to the Webex WFO fields, you can save that mapping for reuse.

## Prerequisites

- To import users, you must have the Assign User Roles permission.
- If the file contains any values in the QM Views column, you must have the Edit QM Views permission.

## Procedures

### Export user data

- Click **Export**. Webex WFO downloads the file to your PC. By default, the file is named **people.csv**.

## Import user data

1. Click **Choose File**, navigate to the CSV file that contains the import data, and then click **Open** to display the file column headers. See [CSV file format](#) for details on the CSV file requirements.
2. Map the required Webex WFO import fields to the appropriate field in the CSV file, and then configure that field's data type.
3. Click **Import**.

**NOTE** Existing users' data is updated with the values in each column. If a column is left blank or the column is deleted from the import file, any existing data in that column is deleted in Webex WFO.

## Save a mapping schema for reuse

1. Click **Choose File**, navigate to your CSV file, and then click **Open** to display the file column headers.
2. Map the required Webex WFO import fields to the appropriate field in the CSV file, and then configure that field's data type.
3. Enter a name for the mapping in the **Mapping Name** field.
4. Click **Save**. This mapping schema will then be available for reuse in a future import.

## CSV file format

The CSV file can include columns for the following data in any order. The Email, First Name, and Last Name columns are required; all others are optional. The columns are listed in alphabetical order in this table.

The columns in the CSV file can use the names listed in this table or names that you choose. For example, **Email** could be **Email Address**. The column names listed here are the ones used in the Webex WFO database. If you use different column names, you must map each custom name to the appropriate Webex WFO name.

Column Header	Description
ACD ID	The user's ID within the ACD.
ACD Server ID	The ID of the ACD that is the source of data for the user.
Activated	The date the user was activated.

Column Header	Description
Company End Date	The date the user left the company.
Company Start Date	The date the user started with the company.
Deactivated	The date the user was deactivated.  To activate a deactivated user when importing users, set this date to <b>12/31/2999</b> .
Department Start Date	The date the user started with the department.
Display Time Zone	The user's display time zone. For a list of valid names to use when importing users, see <a href="#">Time zone names</a> .
Email	(Required) The user's email address.
Employee ID	The user's employee ID.
Enable Scheduling	Indicates if the user can be scheduled. True/False.
First Name	(Required) The user's first name.
Full Scope	When set to TRUE, the user has scope over all groups, teams, and users. When set to FALSE, the user's scope is as configured in the Scope Teams and Scope Groups fields.
Last Name	(Required) The user's last name.
Locale	The language used by the user.
Login	The user's login ID.
Max Staffing Group	The maximum staffing group to which the user is assigned.
Member Group	The group to which the user belongs.
QM Views	The views assigned to the user in QM.
Rank	The user's rank within the contact center.
Roles	The roles assigned to the user. Multiple roles are separated by a semicolon.

Column Header	Description
Schedule Release Profile	The schedule release profile assigned to this user.
Scheduling Time Zone	The time zone used to schedule the agent.
Scope Groups	The groups within the user's scope. Multiple groups are separated by semicolons.
Scope Teams	The teams within the user's scope. Multiple teams are separated by semicolons.
Skill Mappings	The skill mappings assigned to this user.
Team	The user's assigned team.
User ID	<p>The user's ID in Webex WFO. You can identify the ID number by exporting user data and viewing it in the resulting CSV file.</p> <p>If the user is a new user, the User ID must be set to 0 (zero) or the import will fail.</p>
Work Condition Profile	The work condition profile assigned to this user.

### Time zone names

The following is a list of allowable time zone names that can be entered in the Users import/export CSV file.

ACT	AET	Africa/Abidjan
Africa/Accra	Africa/Addis_Ababa	Africa/Algiers
Africa/Asmara	Africa/Asmera	Africa/Bamako
Africa/Bangui	Africa/Banjul	Africa/Bissau
Africa/Blantyre	Africa/Brazzaville	Africa/Bujumbura
Africa/Cairo	Africa/Casablanca	Africa/Ceuta
Africa/Conakry	Africa/Dakar	Africa/Dar_es_Salaam
Africa/Djibouti	Africa/Douala	Africa/El_Aaiun
Africa/Freetown	Africa/Gaborone	Africa/Harare

Africa/Johannesburg	Africa/Juba	Africa/Kampala
Africa/Khartoum	Africa/Kigali	Africa/Kinshasa
Africa/Lagos	Africa/Libreville	Africa/Lome
Africa/Luanda	Africa/Lubumbashi	Africa/Lusaka
Africa/Malabo	Africa/Maputo	Africa/Maseru
Africa/Mbabane	Africa/Mogadishu	Africa/Monrovia
Africa/Nairobi	Africa/Ndjamena	Africa/Niamey
Africa/Nouakchott	Africa/Ouagadougou	Africa/Porto-Novo
Africa/Sao_Tome	Africa/Timbuktu	Africa/Tripoli
Africa/Tunis	Africa/Windhoek	AGT
America/Adak	America/Anchorage	America/Anguilla
America/Antigua	America/Araguaina	America/Argentina/Buenos_Aires
America/Argentina/Catamarca	America/Argentina/ComodRivadavia	America/Argentina/Cordoba
America/Argentina/Jujuy	America/Argentina/La_Rioja	America/Argentina/Mendoza
America/Argentina/Rio_Gallegos	America/Argentina/Salta	America/Argentina/San_Juan
America/Argentina/San_Luis	America/Argentina/Tucuman	America/Argentina/Ushuaia
America/Aruba	America/Asuncion	America/Atikokan
America/Atka	America/Bahia	America/Bahia_Banderas
America/Barbados	America/Belem	America/Belize
America/Blanc-Sablon	America/Boa_Vista	America/Bogota
America/Boise	America/Buenos_Aires	America/Cambridge_Bay
America/Campo_Grande	America/Cancun	America/Caracas

## Manage users | Create and edit users for QM and Analytics

America/Catamarca	America/Cayenne	America/Cayman
America/Chicago	America/Chihuahua	America/Coral_Harbour
America/Cordoba	America/Costa_Rica	America/Creston
America/Cuiaba	America/Curacao	America/Danmarkshavn
America/Dawson	America/Dawson_Creek	America/Denver
America/Detroit	America/Dominica	America/Edmonton
America/Eirunepe	America/El_Salvador	America/Ensenada
America/Fort_Wayne	America/Fortaleza	America/Glace_Bay
America/Godthab	America/Godthab	America/Goose_Bay
America/Grand_Turk	America/Grenada	America/Guadeloupe
America/Guatemala	America/Guayaquil	America/Guyana
America/Halifax	America/Havana	America/Hermosillo
America/Indiana/Indianapolis	America/Indiana/Knox	America/Indiana/Marengo
America/Indiana/Petersburg	America/Indiana/Tell_City	America/Indiana/Vevay
America/Indiana/Vincennes	America/Indiana/Winamac	America/Indianapolis
America/Inuvik	America/Iqaluit	America/Jamaica
America/Jujuy	America/Juneau	America/Kentucky/Louisville
America/Kentucky/Monticello	America/Knox_IN	America/Kralendijk
America/La_Paz	America/Lima	America/Los_Angeles
America/Louisville	America/Lower_Princes	America/Maccio
America/Managua	America/Manaus	America/Marigot
America/Martinique	America/Matamoros	America/Mazatlan
America/Mendoza	America/Menominee	America/Merida
America/Metlakatla	America/Mexico_City	America/Miquelon

America/Moncton	America/Monterrey	America/Montevideo
America/Montreal	America/Montserrat	America/Nassau
America/New_York	America/Nipigon	America/Nome
America/Noronha	America/North_Dakota/Beulah	America/North_Dakota/Center
America/North_Dakota/New_Salem	America/Ojinaga	America/Panama
America/Pangnirtung	America/Paramaribo	America/Phoenix
America/Port-au-Prince	America/Port_of_Spain	America/Porto_Acre
America/Porto_Velho	America/Puerto_Rico	America/Rainy_River
America/Rankin_Inlet	America/Recife	America/Regina
America/Resolute	America/Rio_Branco	America/Rosario
America/Santa_Isabel	America/Santarem	America/Santiago
America/Santo_Domingo	America/Sao_Paulo	America/Scoresbysund
America/Shiprock	America/Sitka	America/St_Barthelemy
America/St_Johns	America/St_Kitts	America/St_Lucia
America/St_Thomas	America/St_Vincent	America/Swift_Current
America/Tegucigalpa	America/Thule	America/Thunder_Bay
America/Tijuana	America/Toronto	America/Tortola
America/Vancouver	America/Virgin	America/Whitehorse
America/Winnipeg	America/Yakutat	America/Yellowknife
Antarctica/Casey	Antarctica/Davis	Antarctica/DumontDURville
Antarctica/Macquarie	Antarctica/Mawson	Antarctica/McMurdo
Antarctica/Palmer	Antarctica/Rothera	Antarctica/South_Pole
Antarctica/Syowa	Antarctica/Vostok	Arctic/Longyearbyen

## Manage users | Create and edit users for QM and Analytics

ART	Asia/Aden	Asia/Almaty
Asia/Amman	Asia/Anadyr	Asia/Aqtau
Asia/Aqtobe	Asia/Ashgabat	Asia/Ashkhabad
Asia/Baghdad	Asia/Bahrain	Asia/Baku
Asia/Bangkok	Asia/Beirut	Asia/Bishkek
Asia/Brunei	Asia/Calcutta	Asia/Choibalsan
Asia/Chongqing	Asia/Chungking	Asia/Chungking
Asia/Colombo	Asia/Dacca	Asia/Damascus
Asia/Dhaka	Asia/Dili	Asia/Dubai
Asia/Dushanbe	Asia/Gaza	Asia/Harbin
Asia/Hebron	Asia/Ho_Chi_Minh	Asia/Hong_Kong
Asia/Hovd	Asia/Irkutsk	Asia/Istanbul
Asia/Jakarta	Asia/Jayapura	Asia/Jerusalem
Asia/Kabul	Asia/Kamchatka	Asia/Karachi
Asia/Kashgar	Asia/Kathmandu	Asia/Katmandu
Asia/Kolkata	Asia/Krasnoyarsk	Asia/Kuala_Lumpur
Asia/Kuching	Asia/Kuwait	Asia/Macao
Asia/Macau	Asia/Magadan	Asia/Makassar
Asia/Manila	Asia/Muscat	Asia/Nicosia
Asia/Novokuznetsk	Asia/Novosibirsk	Asia/Omsk
Asia/Oral	Asia/Phnom_Penh	Asia/Pontianak
Asia/Pyongyang	Asia/Qatar	Asia/Qyzylorda
Asia/Qyzylorda	Asia/Rangoon	Asia/Riyadh
Asia/Riyadh87	Asia/Riyadh88	Asia/Riyadh89

Asia/Saigon	Asia/Sakhalin	Asia/Samarkand
Asia/Seoul	Asia/Shanghai	Asia/Singapore
Asia/Taipei	Asia/Tashkent	Asia/Tbilisi
Asia/Tehran	Asia/Tel_Aviv	Asia/Thimbu
Asia/Thimphu	Asia/Tokyo	Asia/Ujung_Pandang
Asia/Ulaanbaatar	Asia/Ulan_Bator	Asia/Urumqi
Asia/Vientiane	Asia/Vladivostok	Asia/Yakutsk
Asia/Yekaterinburg	Asia/Yerevan	AST
Atlantic/Azores	Atlantic/Bermuda	Atlantic/Canary
Atlantic/Cape_Verde	Atlantic/Faeroe	Atlantic/Faroe
Atlantic/Jan_Mayen	Atlantic/Madeira	Atlantic/Reykjavik
Atlantic/South_Georgia	Atlantic/St_Helena	Atlantic/Stanley
Australia/ACT	Australia/Adelaide	Australia/Brisbane
Australia/Broken_Hill	Australia/Canberra	Australia/Currie
Australia/Darwin	Australia/Lindeman	Australia/Hobart
Australia/LHI	Australia/North	Australia/Lord_Howe
Australia/Melbourne	Australia/Queensland	Australia/NSW
Australia/Perth	Australia/Tasmania	Australia/South
Australia/Sydney	Australia/Yancowinna	Australia/Victoria
Australia/West	Brazil/DeNoronha	BET
Brazil/Acre	BST	Brazil/East
Brazil/West	Canada/East-Saskatchewan	Canada/Atlantic
Canada/Central	Canada/Newfoundland	Canada/Eastern
Canada/Mountain	Canada/Yukon	Canada/Pacific

## Manage users | Create and edit users for QM and Analytics

Canada/Saskatchewan	Chile/Continental	CAT
CET	CST	Chile/EasterIsland
CNT	Cuba	CST6CDT
CTT	EET	EAT
ECT	EST	Egypt
Eire	Etc/GMT+0	EST5EDT
Etc/GMT	Etc/GMT+11	Etc/GMT+1
Etc/GMT+10	Etc/GMT+3	Etc/GMT+12
Etc/GMT+2	Etc/GMT+6	Etc/GMT+4
Etc/GMT+5	Etc/GMT+9	Etc/GMT+7
Etc/GMT+8	Etc/GMT-10	Etc/GMT-0
Etc/GMT-1	Etc/GMT-13	Etc/GMT-11
Etc/GMT-12	Etc/GMT-3	Etc/GMT-14
Etc/GMT-2	Etc/GMT-6	Etc/GMT-4
Etc/GMT-5	Etc/GMT-9	Etc/GMT-7
Etc/GMT-8	Etc/UCT	Etc/GMT0
Etc/Greenwich	Etc/Zulu	Etc/Universal
Etc/UTC	Europe/Athens	Europe/Amsterdam
Europe/Andorra	Europe/Berlin	Europe/Belfast
Europe/Belgrade	Europe/Bucharest	Europe/Bratislava
Europe/Brussels	Europe/Copenhagen	Europe/Budapest
Europe/Chisinau	Europe/Guernsey	Europe/Dublin
Europe/Gibraltar	Europe/Istanbul	Europe/Helsinki
Europe/Isle_of_Man	Europe/Kiev	Europe/Jersey

Europe/Kaliningrad	Europe/London	Europe/Lisbon
Europe/Ljubljana	Europe/Malta	Europe/Luxembourg
Europe/Madrid	Europe/Monaco	Europe/Mariehamn
Europe/Minsk	Europe/Oslo	Europe/Moscow
Europe/Nicosia	Europe/Prague	Europe/Paris
Europe/Podgorica	Europe/Samara	Europe/Riga
Europe/Rome	Europe/Simferopol	Europe/San_Marino
Europe/Sarajevo	Europe/Stockholm	Europe/Skopje
Europe/Sofia	Europe/Tiraspol	Europe/Tallinn
Europe/Tirane	Europe/Vatican	Europe/Uzhgorod
Europe/Vaduz	Europe/Volgograd	Europe/Vienna
Europe/Vilnius	Europe/Zaporozhye	Europe/Warsaw
Europe/Zagreb	GB-Eire	Europe/Zurich
GB	Greenwich	GMT
GMT0	Iceland	Hongkong
HST	Indian/Chagos	IET
Indian/Antananarivo	Indian/Comoro	Indian/Christmas
Indian/Cocos	Indian/Maldives	Indian/Kerguelen
Indian/Mahe	Indian/Reunion	Indian/Mauritius
Indian/Mayotte	IST	Iran
Israel	JST	Jamaica
Japan	MET	Kwajalein
Libya	Mexico/General	Mexico/BajaNorte
Mexico/BajaSur	Mideast/Riyadh89	Mideast/Riyadh87

## Manage users | Create and edit users for QM and Analytics

Mideast/Riyadh88	MST7MDT	MIT
MST	NST	Navajo
NET	Pacific/Apia	NZ
NZ-CHAT	Pacific/Chuuk	Pacific/Auckland
Pacific/Chatham	Pacific/Enderbury	Pacific/Easter
Pacific/Efate	Pacific/Funafuti	Pacific/Fakaofu
Pacific/Fiji	Pacific/Guadalcanal	Pacific/Galapagos
Pacific/Gambier	Pacific/Johnston	Pacific/Guam
Pacific/Honolulu	Pacific/Kwajalein	Pacific/Kiritimati
Pacific/Kosrae	Pacific/Midway	Pacific/Majuro
Pacific/Marquesas	Pacific/Norfolk	Pacific/Nauru
Pacific/Niue	Pacific/Palau	Pacific/Noumea
Pacific/Pago_Pago	Pacific/Ponape	Pacific/Pitcairn
Pacific/Pohnpei	Pacific/Saipan	Pacific/Port_Moresby
Pacific/Rarotonga	Pacific/Tarawa	Pacific/Samoa
Pacific/Tahiti	Pacific/Wake	Pacific/Tongatapu
Pacific/Truk	PLT	Pacific/Wallis
Pacific/Yap	Portugal	PNT
Poland	PST	PRC
PRT	Singapore	PST8PDT
ROK	SystemV/AST4ADT	SST
SystemV/AST4	SystemV/EST5	SystemV/CST6
SystemV/CST6CDT	SystemV/MST7	SystemV/EST5EDT
SystemV/HST10	SystemV/PST8PDT	SystemV/MST7MDT

SystemV/PST8	Turkey	SystemV/YST9
SystemV/YST9YDT	US/Alaska	UCT
Universal	US/Central	US/Aleutian
US/Arizona	US/Hawaii	US/East-Indiana
US/Eastern	US/Mountain	US/Indiana-Starke
US/Michigan	US/Samoa	US/Pacific
US/Pacific-New	W-SU	UTC
VST		WET
Zulu		

## Manage multiple users for QM and Analytics

Use the “Manage multiple users” option to change the activation status and assign roles to multiple users at once.

### Manage multiple users’ activation status

1. From the Action field, select **Manage Activation Status**.
2. Move users between the Inactive and Active panes as desired to change their activation status.
3. Click **Save**.

### Assign roles to multiple users

**NOTE** To assign roles to multiple users, you must have the Assign User Roles permission.

1. From the Action field, select **Assign Roles**.
2. From the Assign Roles field, select the role you want to assign to users.
3. Move users from the Available pane to the Assigned pane as desired to assign to those users the role you selected.
4. Click **Save**.

## Manage user profiles for QM and Analytics

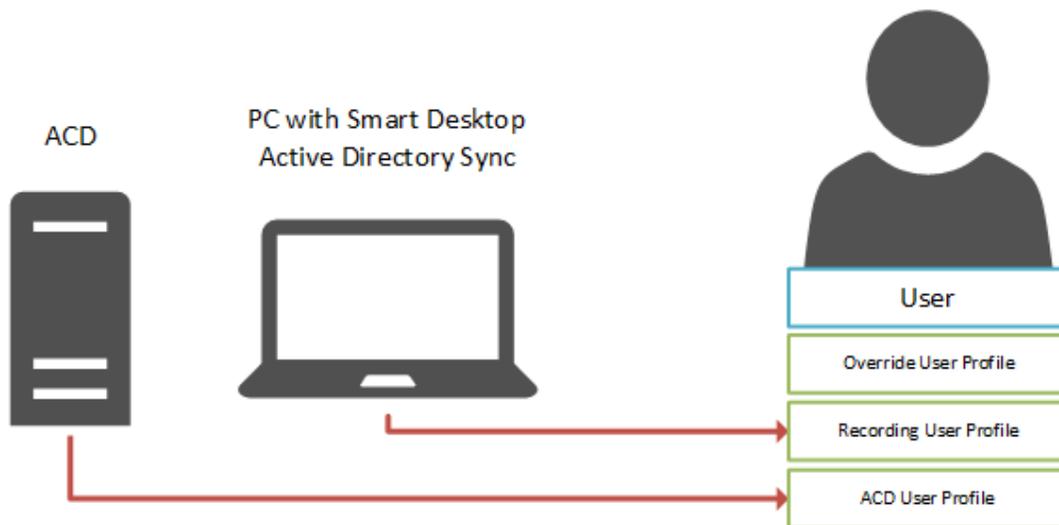
User profiles contain several fields (including first name, last name, and external ID) that summarize a user's identity in external sources such as an ACD, a PC with Smart Desktop, or Active Directory. When a Webex WFO user is added from an external source, Webex WFO selects values from these fields and transfers that identity to the new Webex WFO user.

There are three categories of user profiles:

- [ACD user profiles](#)
- [Recording user profiles](#)
- [Override user profiles](#)

A single Webex WFO user can have all three user profiles at once. However, a user cannot have more than one ACD user profile, even if the user is merged with another user who has an ACD user profile (see [Merge users for QM and Analytics](#)).

User profiles have “precedence.” Their importance is ranked in the User Profile table from highest (top) to lowest (bottom). When a user has more than one user profile, and those user profiles contain conflicting values in the same field, this precedence determines which values Webex WFO selects to identify that user in Webex WFO (see [User profiles example](#)).



## ACD user profiles

Users who are added through syncing with an ACD have ACD user profiles. An ACD user profile summarizes a user's identity in the ACD and transfers that identity to the associated Webex WFO user.

When changes are made to a user in the ACD, the values in the ACD user profile of the associated Webex WFO user are updated the next time that sync occurs. These changes are also transferred to the Webex WFO user, unless the Webex WFO user has another user profile (Recording or Override) that has a higher precedence and contains conflicting values in one or more fields.

Webex WFO creates a separate ACD user profile for each ACD that it imports users from. It distinguishes multiple ACD user profiles by appending the name of the ACD (as entered on the ACD Configuration page) to the user profile source.

### EXAMPLE

Webex WFO imports users from an Amazon Connect ACD that is named "Amazon" and a Cisco Webex Contact Center ACD that is named "Cisco." This results in two user profiles that have the following sources:

- ACD - Cisco
- ACD - Amazon

An ACD user profile can have a higher or a lower precedence than another ACD user profile or a Recording user profile. This precedence can be changed in the User Profile Precedence table on the Global Settings page (see [Configure global settings for QM and Analytics](#)). ACD user profiles cannot have a higher precedence than Override user profiles.

## Recording user profiles

A Recording user profile summarizes a user's identity in Active Directory and transfers that identity to the associated Webex WFO user.

Recording user profiles are added in the following situations:

- A new user is added by logging in to a PC with Smart Desktop
- An existing user is synced with Active Directory
- A new or existing user is given a Windows login

A Recording user profile can have a higher or a lower precedence than an ACD user profile. This precedence can be changed in the User Profile Precedence table on the Global Settings page (see [Configure global settings for QM and Analytics](#)). Recording user profiles cannot have a higher precedence than Override user profiles.

## Override user profiles

An Override user profile preserves any changes that you make to users whose identities are created from ACD or Recording user profiles, ensuring that the values you enter in Webex WFO replace (or “override”) those imported from the ACD, PC with Smart Desktop, or Active Directory.

A user has an Override user profile after any of the following occur:

- The user already has a Recording or an ACD user profile, and you edit one of the values that came from one of these user profiles.

**NOTE** You cannot edit the first name or last name of a user who is synced with an ACD. If the ACD syncs the relationship between users and teams, you cannot edit the team, either.

- You merge a user that you manually created in Webex WFO with a user who has a Recording or an ACD user profile.

**NOTE** Webex WFO removes any existing override user profiles from both the primary user and the secondary user before they are merged. For more information about merging users, see [Merge users for QM and Analytics](#).

- You update an existing user through user import.

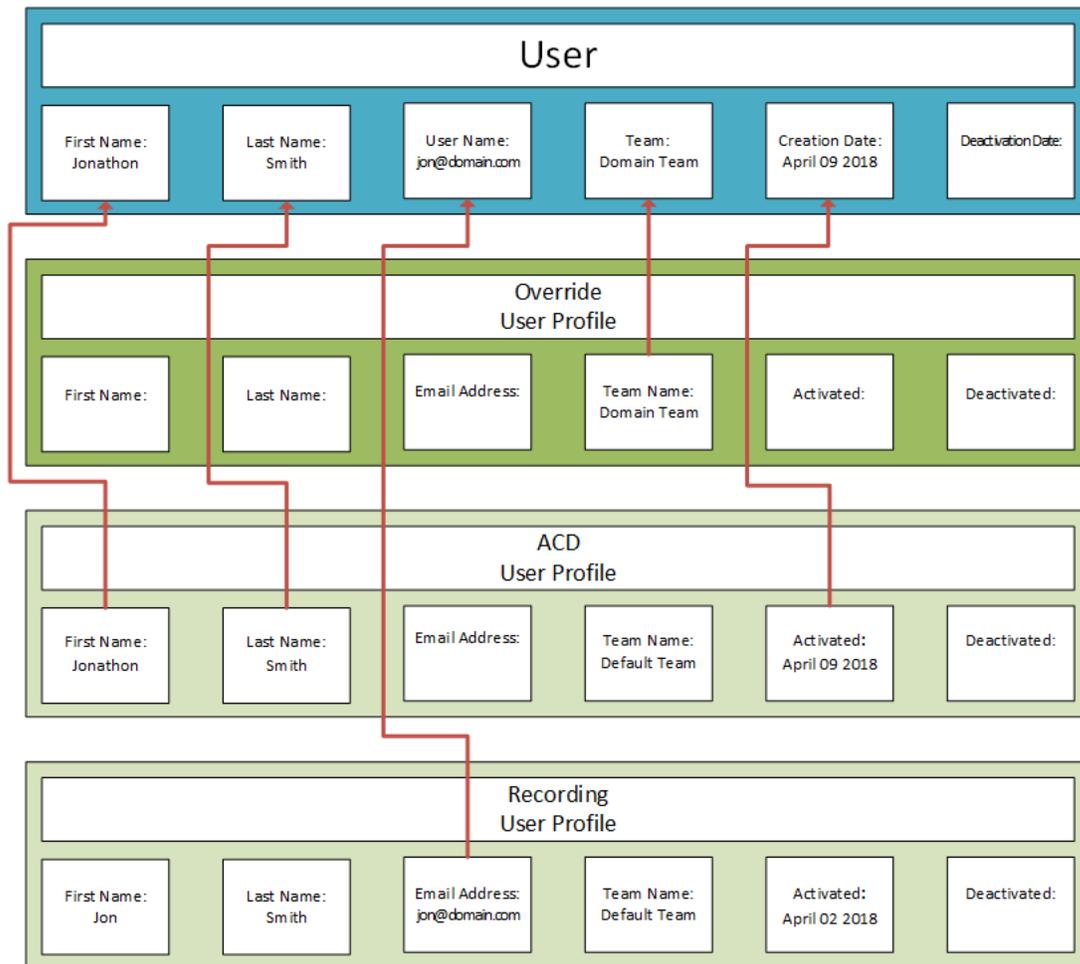
A user cannot have an Override user profile only.

Override user profiles have the highest precedence by default. You cannot lower this precedence. If you want to identify a user with the values stored in an ACD or Recording user profile instead of the values stored in an Override use profile, you must manually delete that user’s Override user profile.

## User profiles example

The following image shows how a Webex WFO user’s identity is created from the values contained in three user profiles. The user profiles are ranked according to their precedence, as they are in the User Profiles table: from highest (Override) to lowest (Recording). To create the Webex WFO user’s identity, Webex WFO selects the first non-blank value for each field from the profile with the highest precedence.

**NOTE** The precedence of user profiles does not affect which value is selected from the External User ID field, even if a user has both a Recording user profile and an ACD user profile. Webex WFO maps the External User ID from the Recording user profile to the user’s Windows Login, and it maps the External User ID from the ACD user profile to the user’s ACD ID.



If you want to change the precedence of the ACD and Recording user profiles, you can rearrange them in the User Profile Precedence table on the Global Settings page (see [Configure global settings for QM and Analytics](#)).

**BEST PRACTICE** Reordering the precedence of user profiles affects every user who has those user profiles. It is recommended that you set the precedence of user profiles once, when you first configure Webex WFO.

## Field descriptions

The following fields appear in the User Profiles table. All fields are read-only.

**NOTE** The values contained in an ACD user profile depend on the ACD. Not all ACD user profiles contain values for all fields.

Field	Description
First Name	<p>ACD and Recording—The first name of the user in the external source.</p> <p>Override—The first name of a user who was created in Webex WFO, not added from an external source.</p>
Last Name	<p>ACD and Recording—The last name of the user in the external source.</p> <p>Override—The last name of a user who was created in Webex WFO, not added from an external source.</p>
Email Address	<p>ACD and Recording—The email address of the user in the external source.</p> <p>Override—The email address that was entered and saved for the user on the Users page.</p>
Team Name	<p>ACD—In ACDs that sync the relationship between users and teams, the team of the user in the ACD. In ACDs that do not sync the relationship between users and teams, the default team.</p> <p>Recording—The default team.</p> <p>Override—The name of the team that was selected and saved for the user on the Users page.</p>
Activated	<p>ACD and Recording—The date that the user was added to Webex WFO from the external source.</p> <p>Override—The date that a user who was created in Webex WFO, not added from an external source, was activated.</p>
Deactivated	<p>ACD and Recording—The date that the user was deactivated or deleted in the external source.</p> <p>Override—The date that the user was deactivated in Webex WFO.</p>
External User ID	<p>ACD—The unique identifier of the user in the ACD.</p> <p>Recording—The user’s Windows login credentials.</p>

Field	Description
	Override—The ACD ID of a user who was created in Webex WFO, not added from an external source.
Source	The origin of the user profile: ACD, Recording, or Override.

## Merge users for QM and Analytics

The Merge Users page allows you to do the following:

- Merge one active ACD-synced user with another active non-ACD-synced user into one user
- Merge one active ACD-synced user with another deactivated ACD-synced user into one user
- Merge many active, individual ACD-synced users, each with a related active non-ACD-synced user, at the same time

In each case, after the merge, one of the users will remain active and the other will be inactive.

**NOTE** If the duplicate user is configured in the [Real Time Adherence Widget](#), agent state changes stop updating in the widget after the merge. You must replace the duplicate user with the primary user in order to see updated agent states in the widget for that user.

You can merge users when you want to do the following:

- Link users with PC logins to users created by the ACD or created manually in Webex WFO
- Link users created manually in Webex WFO to users created by the ACD
- Link ACD-synced users who have been deleted or deactivated with ACD-synced users who recently have been added

If a PC has Webex WFO Smart Desktop installed, a corresponding user is created in Webex WFO with the Agent role when anyone logs into that machine if they do not already exist in Webex WFO. This is done so users can be recorded without additional configuration. However, if these users will be synced, it is best to sync them and configure them with their ACD account, so a merge is not required later.

## Understanding merge users

The following sections describe what happens to user information and user data when you merge users.

### User information

If the users you select have conflicting user information, the duplicate user’s information overwrites and deletes the primary user’s information except for the ACD ID. All information except the ACD ID is removed from the duplicate user, which is also deactivated.

**NOTE** If both the primary user and the duplicate user are synced with an ACD, both users keep their original ACD IDs. The primary user’s ACD ID is not overwritten and deleted, and the duplicate user’s ACD ID is not removed.

The following table describes what happens to the primary and duplicate users’ information when they are merged.

User Information	Primary User Before Merge	Duplicate User Before Merge	Primary User After Merge (Active)	Duplicate User After Merge (Inactive)
First Name	Bob	Robert	Robert	—
Last Name	S	Smith	Smith	—
Team	Team A	Team B	Team B	—
(ACD-synced users only) ACD ID	5000	5001	5000	5001

### User data

When you merge users, the duplicate user’s data either overwrites and deletes the primary user’s data, or is combined with the primary user’s data.

- QM—Everything except the primary user’s device associations is combined with the duplicate user’s data. The duplicate user’s device associations overwrite and delete the primary user’s device associations.

The following example illustrates what happens when the duplicate user’s QM data is merged into the primary user’s QM data.

QM User Data	Primary User Before Merge	Duplicate User Before Merge	Primary User After Merge (Active)	Duplicate User After Merge (Inactive)
Call recordings	Primary user’s call recordings	Duplicate user’s call recordings	Primary user’s and duplicate user’s	—

QM User Data	Primary User Before Merge	Duplicate User Before Merge	Primary User After Merge (Active)	Duplicate User After Merge (Inactive)
			call recordings	
Evaluation forms	Primary user's evaluation forms	Duplicate user's evaluation forms	Primary user's and duplicate user's evaluation forms	—
Device associations	Primary user's device associations	Duplicate user's device associations	Duplicate user's device associations	—

### Override user profiles

Webex WFO removes any existing override user profiles from both the primary user and the secondary user before they are merged.

### Merging two or more non-ACD-synced users

#### Merge two users

1. Select the **Merge duplicate users into a single user** option.
2. In the Select Primary User field, select the user that you want to keep active.
3. In the Duplicate User field, select the duplicate user that you want to merge into the primary user.
4. Click **Save**.

#### Merge multiple duplicate users at once

1. Select the **Merge multiple duplicate users at once** option.
2. Use the Search For A User filter to search for users to merge. The filter will look for matches in the first name and last name. Results will appear in the table below.
3. Select the check box next to the results to indicate matches that you want to accept. The arrow points to the primary user, who will remain active after the merge. This user's name also appears in bold formatting. To change which user is the primary user, click the arrow. The arrow changes directions, and the other user's name now appears in bold formatting.
4. Click **Save**.

### Merging two ACD-synced users

Webex WFO will not allow you to merge two ACD-synced users unless you do one of the following first:

- Deactivate the duplicate user on the Users page
- Delete the duplicate user in the ACD

**BEST PRACTICE** It is recommended that you delete duplicate users in the ACD, not deactivate them on the Users page. Deactivating users does not delete them in the ACD. If you merge a duplicate user that you have deactivated in Webex WFO but not deleted in the ACD, that user will be extracted from the ACD and loaded into Webex WFO the next time the ACD syncs with Webex WFO, and a new user will be created.

If both the primary and the duplicate users are active and synced from the ACD, Webex WFO displays an error message and prevents the merge.

### Merge two ACD-synced users

1. Select the **Merge duplicate users into a single user** option.
2. In the Select Primary User field, select the user that you want to keep active.
3. Select the **Show inactive users** check box.
4. In the Duplicate User field, select the deactivated duplicate user that you want to merge into the primary user.
5. Click **Save**.

### Manage hoteling users for QM and Analytics

A hoteling user is a generic profile that is assigned to a device (see [Associate phones with agents, recording groups, and recording types](#)) in the case that no user logs in. If you choose not to assign a device to a specific agent, you can assign it to a hoteling user.

Field	Description
Select User	("Edit or delete an existing user" only) The hoteling user you want to edit.
First Name	The first name of the hoteling user.
Last Name	The last name of the hoteling user.
User Name	The user's email address. This becomes the user's Webex WFO user name and is used to log in.
Windows Login	The user's Windows login credentials. In an Active Directory environment, this is the user's Active Directory user name.

Field	Description
Account Status	The user's account status (locked or unlocked). Use this field to change a user's account status if the account has become locked due to unsuccessful login attempts.
Team	The team for the hoteling user.

## Manage roles and permissions for QM and Analytics

A role is a collection of permissions.

A permission controls which applications and actions are available to a user who has been assigned a role. For example, if a user is assigned the supervisor role and the supervisor role includes the Create Contact permission, then that user can create contacts.

A license defines which roles are entitled to use specific Webex WFO functionality. For example, if the Access license is assigned to the supervisor role, then supervisors can monitor and evaluate agents.

### Defining roles

In Webex WFO, roles define what features each user has access to. Webex WFO includes three default roles: administrator, agent, and supervisor. You cannot delete default roles, but you can rename them and change the optional permissions associated with them. The Select A Role section lets you create new roles, to which you can associate licenses and assign permissions.

The available permissions are based on the features and default roles that are available to you. If you select a permission that requires other permissions, the required permissions are automatically selected. You can access only the pages that your permissions allow.

Users can be assigned one or multiple roles and, as a result, can access all the features associated with those roles and permissions.

**NOTE** Permissions that are required for a default role cannot be changed and are unavailable.

Scope defines the groups and teams within the role's control. See [Manage groups for QM and Analytics](#), [Manage teams for QM and Analytics](#), and [Manage views for QM](#).

**EXAMPLE** If a supervisor is assigned to groups A and B, the supervisor's scope includes all the agents in both groups.

**NOTE** All roles must be associated with one or more license types.

## Webex WFO licensing

A specific number of seats or user licenses are available for each product, role, and license type. Each active Webex WFO user is associated with one or more licenses and each active user can have one or more roles.

License seats are counted by the number of active users specified with that licensed role.

**NOTE** Beginning with Webex WFO Version 10.0, all customers must have a set number of seats and licenses for each active user.

Three types of licenses are available, based on the user's role:

- Data license
- Access license
- Administrative license

See [About QM and Analytics licenses](#) for more information on licensing.

## Procedures

### Create a new role

1. Click **Create New Role**.
2. Enter the name of the role.
3. Click **Save**.

New roles that you create are added to the list of roles.

### Change the name of a role

1. Select a role from the Roles table, and then click **Edit** (the pencil icon).
2. Enter the new name of the role.
3. Click **Save**.

### Delete a role

- Select a role from the Roles table, and then click **Delete** (the X icon).

**NOTE** Default roles cannot be deleted.

## Associate a role to a license type

- In the Licenses table, select or clear the check box for each license type under the column for a specific role that you want to associate to that license type.

**NOTE** The **Used** and **Available** fields indicate the number of seats you have used and the total number of seats to which you are entitled.

## Edit a role's permissions

- In the Permissions table, select (assign) or clear (unassign) the check box for each permission under the column for a specific role.

## Permissions

The permissions table lets you assign specific permissions to default and custom roles.

The Permissions table separates permissions by category. The headings below correspond to the permissions table categories.

## Application Management

Permission	Details	
Administer QM	Description	Allows you to manage QM applications.
	Page Access	Application Management > QM Configuration > Global Settings Application Management > QM Configuration > Archive Configuration Application Management > QM Contact Flows > Retention
	Licenses	Access License: Webex WFO Access Administrative License: System Administrator
	Related Permissions and Notes	—
Agent Monitoring	Description	Allows you to monitor an active agent's screen and/or audio, as well as collect agent logs.
	Page Access	Application Management > Monitoring > Agent Monitoring
	Licenses	Access License: Webex WFO Access

Permission	Details	
		Administrative License: System Administrator
	Related Permissions and Notes	To monitor agents in real time, you also need the Live Audio Monitoring permission (for audio monitoring) or the Live Screen Monitoring permission (for screen monitoring).
Administer Roles	Description	Allows you to create roles and modify permissions associated with those roles.
	Page Access	Application Management > User Configuration > Roles
	Licenses	Access License: Webex WFO Access Administrative License: System Administrator
	Related Permissions and Notes	—
Administer Tenant	Description	Allows you to perform administrative tasks for the tenant.
	Page Access	Application Management > User Configuration > Merge Users Application Management > Administration > Downloads Application Management > System Configuration > Data Server Configuration Application Management > Analytics > Analytics Configuration
	Licenses	Administrative License: System Administrator
	Related Permissions and Notes	To access the Analytics Configuration page, you also need the Administer Analytics permission.
Administer Org. Structure	Description	Allows you to manage the groups, teams, and users that are within your scope.
	Page Access	Application Management > User Configuration > Groups Application Management > User Configuration > Teams Application Management > User Configuration > Users Application Management > User Configuration > Merge Users

Permission	Details	
	Licenses	<p>Access License: Webex WFO Access</p> <p>Administrative License: System Administrator</p>
	Related Permissions and Notes	<p>You must have several additional permissions to take the following actions on the Users page:</p> <ul style="list-style-type: none"> <li>■ To assign roles, you must have the Assign User Roles permission. If you do not have the Assign User Roles permission and you create a new user, Webex WFO automatically gives the new user the default agent role. Only users with the Assign User Roles permission can change this assignment.</li> <li>■ To assign WFM views on the Users page, you must have the Edit WFM Views permission</li> <li>■ To assign QM views, you must have the Edit QM Views permission</li> <li>■ To import users, you must have the Assign User Roles permission. If the import file contains any values in the Views column, you must have the Edit WFM Views permission. If the file contains any values in the QM Views column, you must have the Edit QM Views permission.</li> <li>■ To assign roles to multiple users, you must have the Assign User Roles permission</li> </ul>
Receive Business Notifications	Description	Allows you to configure how business notifications are sent when a contact has been scored, needs approval, etc.
	Page Access	(Business notifications only) Application Management > Monitoring > Notifications
	Licenses	<p>Data Licenses: Compliance Recording, Webex WFO Suite, Quality Management, Workforce Management, and Analytics</p> <p>Access License: Webex WFO Access</p>
	Related Permission	—

Permission	Details	
	and Notes	
Receive Support Notifications	Description	Allows you to configure how support notifications are sent for troubleshooting purposes.
	Page Access	(Support notifications only) Application Management > Monitoring > Notifications
	Licenses	Administrative License: System Administrator
	Related Permissions and Notes	—
View API Documentation	Description	Allows you to view the API documentation.
	Page Access	—
	Licenses	Access License: Webex WFO Access Administrative License: System Administrator
	Related Permissions and Notes	—
Administer ACD Configuration	Description	Allows you to set up a connection between Webex WFO and the ACD.
	Page Access	Application Management > System Configuration > ACD Configuration
	Licenses	Administrative License: System Administrator
	Related Permissions and Notes	—

Permission	Details	
Administer Distribution List	Description	Allows you to manage distribution lists.
	Page Access	—
	Licenses	Administrative License: System Administrator
	Related Permissions and Notes	—
View Audit Information	Description	Allows you to view the Server Status and Notifications.
	Page Access	—
	Licenses	Administrative License: System Administrator
	Related Permissions and Notes	—
Bulk Import	Description	Allows you to import data using the various import APIs.
	Page Access	—
	Licenses	Access License: Webex WFO Access Administrative License: System Administrator
	Related Permissions and Notes	See the <i>Webex WFO API Reference Guide</i> for more details.
Administer Password Policy	Description	Allows you to manage password policy settings and to unlock user accounts.
	Page Access	Application Management > Administration > Password Policy
	Licenses	Administrative License: System Administrator
	Related Permissions and Notes	—

Permission	Details	
View Desktop Monitoring	Description	Allows you to view the Desktop Monitoring page.
	Page Access	Application Management > Monitoring
	Licenses	Administrative License: System Administrator
	Related Permissions and Notes	—
Administer Encryption Keys	Description	Allows you generate new storage file encryption keys.
	Page Access	Application Management > Administration > Global Settings
	Licenses	Administrative License: System Administrator
	Related Permissions and Notes	—
Administer Active Directory Authentication	Description	Allows you to create and edit Active Directory connections.
	Page Access	Application Management > Active Directory Configuration
	Licenses	Administrative License: System Administrator
	Related Permissions and Notes	—
Administer Gamification	Description	Allows you to manage gamification for your agents.
	Page Access	Application Management > Performance Management
	Licenses	Access License: Webex WFO Access
	Related Permissions and Notes	—

Permission	Details	
View Gamification	Description	Allows you to view gamification.
	Page Access	—
	Licenses	Access License: Webex WFO Access
	Related Permissions and Notes	—
Mobile Device Access	Description	Allows you to enable access to a limited mobile version of the Webex WFO website.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, Quality Management, Workforce Management, and Analytics Access License: Webex WFO Access Administrative License: System Administrator
	Related Permissions and Notes	—
View/Update Hoteling Users	Description	Allows you to view, edit, and create hoteling users
	Page Access	—
	Licenses	Access License: Webex WFO Access
	Related Permissions and Notes	—
View Evaluator Details	Description	Allows you to view the following details about a contact’s evaluator: <ul style="list-style-type: none"> <li>▪ Evaluator first name</li> <li>▪ Evaluator last name</li> <li>▪ Evaluation date</li> </ul>

Permission	Details	
		<ul style="list-style-type: none"> <li>▪ Evaluation approved by</li> </ul>
	Page Access	—
	Licenses	Data Licenses: Quality Management and Webex WFO Suite Access License: Webex WFO Access
	Related Permissions and Notes	—
Assign User Roles	Description	<p>Allows you to assign roles to users on the Users page in any of the following ways:</p> <ul style="list-style-type: none"> <li>▪ Editing an existing user</li> <li>▪ Creating a new user</li> <li>▪ Assigning roles to multiple users</li> <li>▪ Importing users</li> </ul> <p><b>NOTE</b> If the file contains any values in the QM Views column, you must have the Edit QM Views permission.</p>
	Page Access	—
	Licenses	—
	Related Permissions and Notes	To access the Users page, you must have the Administer Org. Structure permission
Edit QM Views	Description	<p>Allows you to assign QM views users on the Users page any of the following ways:</p> <ul style="list-style-type: none"> <li>▪ Editing an existing user</li> <li>▪ Creating a new user</li> <li>▪ Importing users</li> </ul>

Permission	Details	
	Page Access	—
	Licenses	—
	Related Permissions and Notes	<p>To access the Users page, you must have the Administer Org. Structure permission</p> <p>To import users, you must have the Assign User Roles permission. If the import file contains any values in the Views column, you must have the Edit QM Views permission.</p>

## Dashboard

Permission	Details	
View QM Dashboard	Description	Allows you to view the QM widgets in the Data Explorer dashboards.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	To view some QM widgets, you also need the View Evaluation Scores and View Contact Goal permissions.
Administer Dashboards	Description	Allows you to configure the Analytics and QM dashboards.
	Page Access	—
	Licenses	Administrative License: System Administrator
	Related Permissions and Notes	You must also have the View QM Dashboard permission.

## Recordings Admin

Permission	Details	
View Recycle Bin	Description	Allows you to search the recycle bin contents from the Recordings application and restore contacts so that the recordings can be played.
	Page Access	—
	Licenses	Access License: Webex WFO Access
	Related Permissions and Notes	Administrative License: System Administrator
Delete Contact	Description	Allows you to delete contacts.
	Page Access	—
	Licenses	Access License: Webex WFO Access
	Related Permissions and Notes	You must also have the View Recycle Bin permission.
Administer Workflow	Description	Allows you to access and configure workflows for QM
	Page Access	Application Management > QM Configuration > Workflow Administration
	Licenses	Access License: Webex WFO Access
	Related Permissions and Notes	—

Permission	Details	
Administer Metadata Fields	Description	Allows you to access and configure metadata.
	Page Access	Application Management > QM Configuration > Metadata Manager
	Licenses	Access License: Webex WFO Access Administrative License: System Administrator
	Related Permissions and Notes	—
Administer Evaluation Forms	Description	Allows you to configure evaluation forms.
	Page Access	Application Management > QM Configuration > Evaluation Form Manager
	Licenses	Access License: Webex WFO Access
	Related Permissions and Notes	—
Administer Recording Sites	Description	Allows you to select a recording site for a team, if the user has multiple sites.
	Page Access	—
	Licenses	Access License: Webex WFO Access Administrative License: System Administrator
	Related Permissions and Notes	—
Administer Contact Goals	Description	Allows you to view contact goals on the Contact Goal Administration page.
	Page Access	Application Management > QM Contact Flows > Contact Goal Administration
	Licenses	Access License: Webex WFO Access

Permission	Details	
	Related Permissions and Notes	To create or edit contact goals, you also need the Create Contact Goal permissions.
Configure Telephony Groups	Description	Allows you to configure telephony groups, signaling groups, and recording groups.
	Page Access	Application Management > QM Configuration > Telephony Groups
	Licenses	Access License: Webex WFO Access Administrative License: System Administrator
	Related Permissions and Notes	—
Configure Device Associations	Description	Allows you to configure devices in your call center.
	Page Access	Application Management > QM Configuration > Device Associations
	Licenses	Access License: Webex WFO Access Administrative License: System Administrator
	Related Permissions and Notes	—

## Desktop Client

Permission	Details	
Capture Desktop Analytics	Description	Allows you to capture desktop activity using Desktop Analytics.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, Quality Management, and Analytics Access License: Webex WFO Access
	Related Permissions and Notes	—
Record Screen	Description	Automatically records screen activity on the user’s desktop.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite, Quality Management, and Analytics
	Related Permissions and Notes	To enable screen recording on a user’s desktop, Smart Desktop must be installed, and you must also enable one of the following permissions: <ul style="list-style-type: none"> <li>▪ Record Voice—Required when you want to automatically record both voice and screen during a call</li> <li>▪ Recording Start Stop Screen—Required when you want the user to control when screen recording starts and stops using Recording Controls</li> </ul>
Record Voice	Description	Automatically records audio on the user’s desktop.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management
	Related Permissions and Notes	To enable audio recording on a user’s desktop, Smart Desktop must be installed.

Permission	Details	
Live Screen Monitoring	Description	Allows you to live monitor a user's screen.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	You also need the Agent Monitoring permission.
Live Audio Monitoring	Description	Allows you to live audio monitor a user's calls.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	You also need the Agent Monitoring permission.
Record On Demand (RTP Signaling)	Description	Enables the Record On Demand recording mode in Smart Desktop. This mode enables the agent to record only the segments of calls that are explicitly specified when using Recording Controls.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	—

## Recording Contacts

Permission	Details	
View Contacts	Description	Allows you to search all recording contacts within your scope from Recordings.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, Quality Management, and Analytics Access License: Webex WFO Access
	Related Permissions and Notes	—
View Scored Contacts	Description	Allows you to only search contacts that have been scored (evaluated) from Recordings.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	—
Export Recordings	Description	Allows you to export recordings from Recordings.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	You must also have the View Contacts permission.
View Custom Metadata	Description	Allows you to view custom metadata in the Recordings application grid and the Media Player.
	Page Access	—

Permission	Details	
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	You must also have the View Contacts permission.
Edit Custom Metadata	Description	Allows you to edit custom metadata in the Recordings application grid and the Media Player.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	You must also have the View Contacts and View Custom Metadata permissions.
Tag Contact	Description	Allows you to tag a contact using the Recording Controls.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	To tag a contact with the Recording Controls, Smart Desktop must be installed.

Permission	Details	
Create Contact	Description	Allows you to create a non-call contact from Recordings.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	You must also have the View Contacts permission.
View Analytics Data for Contacts	Description	Allows you to see the Analytics Net Promoter Scores (NPS) and Eval Predictive Scores (EPS) data for contacts within your scope within the Recording Application.
	Page Access	—
	Licenses	Access License: Webex WFO Access
	Related Permissions and Notes	—
View Root Recordings	Description	Allows you to view root recordings.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	—

Permission	Details	
Untag Contact	Description	Allows you to untag a tagged contact.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	—
Mark For Training	Description	Allows you to mark a contact for review in training.
	Page Access	Application Management > User Configuration > Roles
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	By default, all users can mark a contact for training. If you do not require all users to mark contacts for training, clear this check box.  You must also have the View Contacts, and Tag Contacts or Untag Contacts permissions.
View All Training Contacts	Description	Allows you to view all contacts marked for training across the tenant.
	Page Access	Application Management > User Configuration > Roles
	Licenses	Access License: Webex WFO Access
	Related Permissions and Notes	You must also have the View Contacts permission.
Bulk Contact Export	Description	Allows you to export audio files, contact details, and metadata from the Recordings page on a scheduled or ad hoc basis.
	Page Access	—

Permission	Details	
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	Disabled by default.
View UnReconciled Root Recordings	Description	Allows you to see all root recordings unconditionally.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	Disabled by default. You must also have the View Root Recordings permission.
View Bulk Contact Export	Description	Allows you to view the bulk contact exports of everyone in your organization.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	Disabled by default.
Bulk Delete	Description	This permission is not currently in use.

Permission	Details	
View All HR Contacts	Description	Allows you to view all contacts marked for HR across the tenant.
	Page Access	Application Management > User Configuration > Roles
	Licenses	Data Licenses: Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	You must also have the View Contacts permission.
Mark For HR	Description	Allows you to mark a contact for review in HR.
	Page Access	Application Management > User Configuration > Roles
	Licenses	Data Licenses: Quality Management Access License: Webex WFO Access NOTE: Requires at least one of these licenses.
	Related Permissions and Notes	Enables administrators to define which roles have the ability to mark a contact for review in HR. If you do not require all users to mark contacts for HR, clear the Mark for HR check box.  You must also have the View Contact permission.

## Recording Contact Evaluations

Permission	Details	
Create Evaluation Comment	Description	Allows you to create comments in the Evaluation Form window from Recordings.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	You must also have the View Contacts and View Evaluations permissions.

Permission	Details	
Approve Contact Evaluation	Description	Allows you to approve the evaluation for a contact from Recordings.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	You must also have the View Contacts and View Evaluations permissions.
Evaluate Contact	Description	Allows you to evaluate a contact from Recordings.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	You must also have the View Contacts and View Evaluations permissions.
Edit Evaluation Comment	Description	Allows you to edit comments in an Evaluation Form window from Recordings.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	You must also have the View Contacts, Create Evaluation Comment, and View Evaluations permissions.

Permission	Details	
View Evaluations	Description	Allows you to view contact evaluations from Recordings.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	You must also have the View Contacts permission
Self-Evaluate Contact	Description	Allows you to evaluate your own contacts.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	You must also have the View Contacts and Evaluate Contact permissions.
Self-Approve Contact Evaluation	Description	Allows you to approve your own contact evaluation.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management
	Related Permissions and Notes	You must also have the View Contacts and View Evaluations permissions.
Edit Any Evaluation	Description	Allows you to edit an evaluation you have completed.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	—

## Recording Contact Calibrations

Permission	Details	
Calibrate Contact	Description	Allows you to mark a contact for calibration from Recordings and to perform a calibration evaluation.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	You must also have the View Contacts permission.
Self-Calibrate Contact	Description	Allows you to calibrate your own contacts.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	You must also have the View Contacts and Calibrate Contact permissions

## Contact Goals

Permission	Details	
Create Evaluation Goal	Description	Allows you to create and assign evaluation tasks (ad-hoc) and contact goals.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	To create contact goals, you also need the Administer Contact Goals permission.

Permission	Details	
Create Calibration Goal	Description	Allows you to create and assign calibration tasks (ad hoc) and contact goals.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	To create contact goals, you also need the Administer Contact Goals permission.
Create Review Goal	Description	Allows you to create and assign review tasks (ad-hoc) and contact goals.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	To create contact goals, you also need the Administer Contact Goals permission.
View Contact Goal	Description	Allows you to access the Contact Queue and view the Contact Goal Progress widget.
	Page Access	Contact Queue Dashboard > Contact Goal Progress widget
	Licenses	Data Licenses: Webex WFO Suite and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	—

## Survey

Permission	Details	
Administer QM Surveys	Description	Allows you to configure external post-call survey providers.
	Page Access	Application Management > QM Contact Flows > Post Call Survey
	Licenses	Access License: Webex WFO Access
	Related Permissions and Notes	—
View Survey Results	Description	Allows you to view customer survey result data in the media player, contact table, and reports.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	You must also have the View Contacts permission.

## Analytics

Permission	Details	
View System Analytics	Description	Allows you to access the system data sets on the Analytics dashboard.
	Page Access	—
	Licenses	Access License: Webex WFO Access Administrative License: System Administrator
	Related Permissions and Notes	—
Administer Desktop Analytics	Description	Allows you to administer the Desktop Analytics features and is required for the Data Explorer Tenant Administrator account.

Permission	Details	
	Page Access	Application Management > Analytics > Task Manager
	Licenses	Access License: Webex WFO Access Administrative License: System Administrator
	Related Permissions and Notes	—
Administer Speech Analytics	Description	Allows you to administer the Speech Analytics features and is required for theData ExplorerTenant Administrator account.
	Page Access	Application Management > Analytics > Task Manager Application Management > Analytics > Phrase Manager
	Licenses	Access License: Webex WFO Access Administrative License: System Administrator
	Related Permissions and Notes	—
Administer Speech to Text Analytics	Description	Allows you to administer the Speech to Text Analytics features.
	Page Access	Application Management > Analytics > Task Manager Application Management > Analytics > Phrase Manager
	Licenses	Access License: Webex WFO Access Administrative License: System Administrator
	Related Permissions and Notes	—
Administer Text Analytics	Description	Allows you to administer the Text Analytics features and is required for theData ExplorerTenant Administrator account.
	Page Access	Application Management > Analytics > Task Manager

Permission	Details	
	Application Management > Analytics > Phrase Manager	
	Licenses	Access License: Webex WFO Access Administrative License: System Administrator
	Related Permissions and Notes	—
View Desktop Analytics	Description	Allows you to view the Desktop Analytics features.
	Page Access	—
	Licenses	Access License: Webex WFO Access
	Related Permissions and Notes	The Agent Explorer page will not be available if this permission is disabled.
View Speech Analytics	Description	Allows you to view the Speech Analytics features.
	Page Access	—
	Licenses	Access License: Webex WFO Access
	Related Permissions and Notes	—
View Speech to Text Analytics	Description	Allows you to view the Speech to Text Analytics features.
	Page Access	—
	Licenses	Access License: Webex WFO Access
	Related Permissions and Notes	—

Permission	Details	
View Text Analytics	Description	Allows you to view the Text Analytics features.
	Page Access	—
	Licenses	Access License: Webex WFO Access
	Related Permissions and Notes	—
View Analytics	Description	Allows you to view all aspects of the Analytics features.
	Page Access	—
	Licenses	Access License: Webex WFO Access
	Related Permissions and Notes	—
Administer Analytics	Description	Allows you to administer the Analytics features.
	Page Access	Application Management > Analytics > Analytics Configuration
	Licenses	Access License: Webex WFO Access Administrative License: System Administrator
	Related Permissions and Notes	To access the Analytics Configuration page, you also need the Administer Tenant permission.

## Reporting

Permission	Details	
View QM Reports	Description	Allows you to view QM reports.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management Access License: Webex WFO Access
	Related Permissions and Notes	You must also have the View Organization permission.
Administer QM Reports	Description	Allows you to administer QM reports.
	Page Access	—
	Licenses	Access License: Webex WFO Access
	Related Permissions and Notes	—
Report Authoring	Description	Allows you to create, edit, delete, and share Data Explorer reports and dashboards. It is referred to as the Data Explorer “producer” role. It also enables you to access the Data Explorer asset browser.
	Page Access	—
	Licenses	Access License: Webex WFO Access
	Related Permissions and Notes	—

Permission	Details	
View QM Evaluation Reports	Description	Allows you to view QM evaluation reports.
	Page Access	—
	Licenses	Access License: Webex WFO Access
	Related Permissions and Notes	—
View QM System Reports	Description	Allows you to view QM system reports.
	Page Access	—
	Licenses	Access License: Webex WFO Access
	Related Permissions and Notes	—
View QM Survey Reports	Description	Allows you to view QM survey reports.
	Page Access	—
	Licenses	Access License: Webex WFO Access
	Related Permissions and Notes	—
Advanced Reporting API	Description	Allows you to access the API needed for Data Explorer.
	Page Access	—
	Licenses	Administrative License: System Administrator
	Related Permissions and Notes	—

## Recording Controls

Permission	Details	
Send Pause / Resume Command	Description	Allows you to pause and resume recordings using any method.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management
	Related Permissions and Notes	—
Send Login / Logout Command	Description	Allows you to log into and out of Recording Controls using any method.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management
	Related Permissions and Notes	—
Send Metadata Command	Description	Allows you to add metadata to a recording using any method.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management
	Related Permissions and Notes	—

Permission	Details	
Send Tag Command	Description	Allows you to tag recordings using any method.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management
	Related Permissions and Notes	—
Send Segment and Delete / Save Command	Description	Allows you to start and stop segments (and save and delete segments) using any method.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management
	Related Permissions and Notes	—
Send Start Screen / Stop Screen Command	Description	Allows you to start and stop a screen recording using any method.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management
	Related Permissions and Notes	—

Permission	Details	
Pause / Resume Buttons	Description	Allows you to pause and resume recordings via the user interface or DCC.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management
	Related Permissions and Notes	You must also have the Send Pause / Resume Command permission.
Login / Logout Buttons	Description	Allows you to log into and out of the device via the user interface or DCC.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management
	Related Permissions and Notes	You must also have the Send Login / Logout Command permission.
Add Metadata Button	Description	Allows you to create metadata via the user interface or DCC.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management
	Related Permissions and Notes	You must also have the Send Metadata Command permission.

Permission	Details	
Tag Button	Description	Allows you to tag recordings via the user interface or DCC.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management
	Related Permissions and Notes	You must also have the Send Tag Command permission.
Segment and Delete / Save Buttons	Description	Allows you to start and stop segments (and save and delete segments) via the user interface or DCC.
	Page Access	—
	Licenses	Data Licenses: Compliance Recording, Webex WFO Suite, and Quality Management
	Related Permissions and Notes	You must also have the Send Segment and Delete / Save Command permission.
Start / Stop Screen Buttons	Description	Allows you to start and stop screen recording via the user interface or DCC.
	Page Access	—
	Licenses	Data Licenses: Webex WFO Suite and Quality Management
	Related Permissions and Notes	You must also have the Send Start Screen / Stop Screen Command permission.

## Manage teams for QM and Analytics

A team is a collection of one or more agents.

The Teams page allows you to manage teams for synced and non-synced systems. You can also import and export teams.

In a synced system, teams are created in the ACD and synced to Webex WFO. The sync is one way from the ACD to Webex WFO. If a team has agents assigned to it in the ACD, then those agents are assigned to that team in Webex WFO. For these teams, you cannot change the team name or the agents assigned to the team.

**BEST PRACTICE** When the ACD is synced with Webex WFO, do not create teams in Webex WFO because these teams will not be synced with the ACD.

In a non-synced system, you can create and manage teams in Webex WFO as desired.

## Field definitions

Use the Teams page to create, edit, import, or export teams. If your ACD syncs team data with Webex WFO, consult the documentation to understand how that affects any changes you make here.

The fields on the Teams page are described below.

Field	Description
Team Name	Enter a name for the team. The team name cannot be the name an existing group, an existing team, or the name of the tenant this team is part of. Synced team names are read-only.
Select Team	Select an existing team. The list displays active teams by default.
Show inactive teams	Select this check box to display both active and inactive teams in the Select Team field. “Inactive” appears next to inactive teams in the Select Team list.  When cleared, only active teams appear in the Select Team field.  This field appears only when you are editing an existing team.
Activate this team	To activate the team, select this check box. Teams are activated by default. Clear this check box to deactivate the team.
Creation Date	(Read-only) The date the team record was created.
Deactivation Date	(Read-only) The date the team record was deactivated. As long as the team record is active, this field is not visible. When this field is visible, it displays the date of the team record’s most recent deactivation.  This field only appears when you clear the “Activate this team” check box.

Field	Description
Group	Select the group in which this team should be placed.
Agents	Assign the desired agents to the team. In a synced system, you cannot change the list of agents assigned to the synced team.
Include this team in productivity reports	Select this check box if you want this team’s statistics to be included when the Webex WFO capture service compiles productivity statistics.
Stage Upload Location	<p>Select this check box to associate the team and Stage Upload Data Server. This check box is available only if the Staged Upload component is enabled for a Data Server in your system.</p> <p>Users who are assigned to this team will use Staged Upload only if they are also associated with a correctly-configured QM Workflow Daily Event. For more information about Two-Stage Upload, see “Configuring the Staged Upload Component” in the <i>Design Guide for On-Premises, Hybrid Cloud, or Cloud Deployments</i>.</p>
Storage Profiles	<p>Select a storage profile to associate with this team. The default storage profile for this field is the default set in Storage Profiles (Application Management &gt; System Configuration &gt; Storage Profiles).</p> <p>If you change the storage profile for the team, new recordings are stored in the new storage profile, but existing recordings remain in the original storage profile.</p>

### Import and export teams for QM and Analytics

Select the “Import and export teams” option to import new or edited team or export existing teams. The import and export data is in CSV format.

The columns can use the field names below as the header names or you can use field names you choose (for instance, “Name” could be “Team Name”). The column names listed here are the names used in the Webex WFO database. If you use different column names you must map each custom name to the appropriate Webex WFO name.

Once you have configured how your import file fields are mapped to the Webex WFO fields, you can save that mapping for reuse.

## Export team data

- Click **Export**. Webex WFO downloads the file (named teams.csv) to your PC in CSV format.

## Import team data

1. Click **Choose File**, navigate to your team CSV file, and then click **Open** to display the file column headers. The file can use the default column header names below or you can use header names you choose (for instance, “Name” could be “Team Name”). If you use different column header names you must map each custom name to the appropriate Webex WFO name.

Column Header	Description
Team ID	The team’s ID in the ACD. You can identify the ID number by exporting team data and viewing it in the resulting CSV file. If you import a team with a Team ID that already exists in the database, the imported data for that Team ID overwrites the data in the database.  If the team is a new team, the ID must be set to 0 (zero) or the import will fail.
Name	The name of the team.
Activated Date	The date the team was activated.
Deactivated Date	The date the team was deactivated.
Parent Group ID	The group to which the team belongs.
Productivity Compilation	(False/True) Indicates if the team’s statistics are to be included when the Capture service compiles productivity statistics.

2. Map the required Webex WFO import fields to the appropriate field in the CSV file, and then configure that field’s data type.
3. Click **Import**.

## Save a mapping schema for reuse

1. Click **Choose File**, navigate to your team CSV file, and then click **Open** to display the file column headers.
2. Map the required Webex WFO import fields to the appropriate field in the CSV file, and then configure that field’s data type.

3. Enter a name for the mapping in the **Mapping Name** field, and then click **Save**. This mapping schema will be available for reuse in a future import.

## Manage groups for QM and Analytics

A group is a collection of one or more teams.

### Field definitions

Use the Groups page to create, edit, import, and export groups.

**NOTE** Groups can be deactivated but not removed. They are retained for historical purposes and are available in reports, contacts, analytics, and so on.

The fields on the Groups page are described below.

Field	Description
Group Name	Enter a name for the group. The group name cannot be the name of an existing group, an existing team, or the name of the tenant this group is part of.
Select Group	Select an existing group. The list displays active groups by default.
Show inactive groups	Select this check box to display both active and inactive groups in the Select Group field. “Inactive” appears next to inactive groups in the list of groups.  When cleared, only active groups appear in the Select Group field.  This field only appears when you are editing an existing group.
Activate this group	Select this check box to activate the group. Groups are activated by default. Clear this check box to deactivate the group.
Teams	Assign one or more teams to this group.
Creation Date	(Read-only) The date the group record was created.
Deactivation Date	(Read-only) The date the group record was deactivated. When a record is active, this field is not visible. When this field is visible, it displays the date of the group’s most recent deactivation.

Field	Description
	This field only appears when you clear the “Activate this group” check box.
Teams	Assign one or more teams to this group by moving the teams from the Available pane to the Assigned pane.

## Import and export groups for QM and Analytics

Select the “Import and export groups” option to import new or edited groups or export existing groups. The import and export data is in CSV format.

### Export group data

- Click **Export**. Webex WFO downloads the file (named groups.csv) to your PC.

### Import group data

- Click **Choose File**, navigate to your group CSV file, and then click **Open** to display the file column headers. The file must include columns for the following data in any order. The columns can use these names as the header, or a name you choose (for instance, “Name” could be “Group Name”). If you use different column names, you must map each custom name to the appropriate Webex WFO name.

Column Header	Description
Group ID	The group’s ID in the ACD. You can identify the ID number by exporting group data and viewing it in the resulting CSV file.  If the group is a new group, the ID must be set to 0 (zero) or the import will fail.
Name	The name of the group.
Activated Date	The date the group was activated.
Deactivated Date	The date the group was deactivated.

- Map the required Webex WFO import fields to the appropriate field in the CSV file and configure that field’s data type, or select an existing mapping from the **Use Existing Mapping** drop-down field..

**NOTE** If you are creating a new mapping, once you have configured how your import file fields are mapped to the Webex WFO fields, you can name the mapping and then save it for reuse.

3. Click **Import**.

**NOTE** If you import a group with a Group ID that already exists in the database, the imported data for that Group ID overwrites the data in the database.

## Manage views for QM

A view controls the scope of access a user has in QM.

A user's scope is determined on login. If new entities are created after login (for example, users or teams added by syncing with the ACD), the user's scope will include those entities only after logging out and logging back in.

**NOTE** Contacts previously recorded and tagged with metadata used for a QM view will be included in the returned results for the view. The first time you access contacts using a QM view, you will experience a delay, as the application performs its initial database search for that view.

An entity can be included in multiple views, and a user can be assigned to multiple views.

## Field descriptions

Use the Views page to create, edit, and delete QM views. The fields on the Views page are described below.

Field	Description
View Name	Choose a unique name for the view or select an existing view.  <b>NOTE</b> EnterpriseView is a system view and cannot be renamed or deleted.
Activate	Select the Activate check box to activate the view. A view cannot be used unless it is activated.
Scoping Conditions	Use the fields in this section to create rules for defining the metadata for limiting the scope for this view. <ul style="list-style-type: none"> <li>Match Any or Match All drop-down list—Indicates whether the rule is a logical OR (Match Any) or a logical AND (Match All).</li> </ul>

Field	Description
	<ul style="list-style-type: none"><li>■ Add Rule button—Adds a line of conditions to define the rule. You can add multiple rules.</li><li>■ Metadata Field—Select a metadata field from the drop-down list. Use this field to specify a scope outside your team and group.</li><li>■ Condition—Select the operation to apply to the condition from the drop-down list.</li><li>■ Value—Enter the value with which you want to filter the metadata. Note that you cannot use wild cards when entering this value.</li></ul>

To delete a rule, click the **X** next to the desired rule.



# Record and evaluate interactions

Recording and evaluating interactions entails the following:

- Find contacts within your scope by using one or more filters.
- Play interactions with the Media Player
- Assign and share interactions.
- Evaluate customer conversations (both audio recording and non-call contacts).
- Analyze evaluation data
- View an agent's status, listen in on a call, and view the agent's screen in real time.
- Create contacts manually.

## Record interactions

Recording interactions entails the following:

- Determine which recordings to keep and delete, based on workflow rules, and specify how long the recordings are retained.
- Remove recordings from agent PCs immediately after a contact completes and store them on a Data Server in your contact center until a scheduled time, when a QM Workflow event runs and uploads them to the cloud.
- Proactively manage which contacts are automatically recorded and which contacts are automatically excluded from being recorded.
- Manually record a contact.

**NOTE** Using multiple methods of triggering pause and resume (such as Recording Controls, web events, APIs, and third-party signaling) at the same time can result in unpredictable behavior. To avoid these issue uses, only one method on a call at a time.

## Automate QM workflows

Use the Workflow Administration page to determine which recordings to keep and which recordings to delete based on workflow rules, and to specify how long the recordings are retained. You can also use workflows to perform other tasks, such as assigning evaluations.

End of Call and Daily are the two event types that specify when a workflow is set to run. Once an event type is selected, a workflow is then further configured to consist of rules, conditions, and actions. Rules are evaluated and followed in the order they appear on the Workflow Administration page until a matching rule is found. There is a **Default(locked)** rule that is always the last rule in the list. It can be modified, but it cannot be deleted.

Once a rule is set, you then create one or more conditions that the rule must follow. When the conditions for a rule are met, the actions configured for that condition are followed. These actions can range from inserting metadata, recycling contacts, keeping a percentage of recordings, and more.

## Prerequisites

- Create an active evaluation form if you want to assign a default evaluation form as a workflow action
- You need the Administer Workflow permission

## Page location

Application Management > QM > QM Contact Flows > Workflow Administration

## Procedures

To create a complete workflow you must create a rule, create conditions for that rule, and then set up actions for the conditions you created.

### Create a new rule

When you create a rule, you are creating a container for the conditions you want for your workflow.

1. Select **End of Call Event** or **Daily Event**.

**End of Call Event**—The workflow processes the recording at the end of a call.

**Daily Event**—The workflow processes all recordings once a day. If there are calls still being recorded when the Daily Event workflow is executed, those calls will be uploaded when the next Daily Event runs.

2. (Daily Events only) Enter the time for the Daily Event to run in the **Time** field.

**Time** —The time when workflow processing starts. This is also the start time for the recordings retention period. If the time is changed, the new time goes into effect immediately, and calls will be processed using the new time.

3. Enter a name for the rule in the **Name** Field.
4. Click **Save Rule**. The rule has been added to the workflow.

**NOTE** Selecting **Save Rule** does not save the entire workflow. Workflows can be saved by clicking the **Save** button.

5. Select the rule from the **Rules** list.
6. (Optional) Use the keyboard arrows to change the order of the rules. Rules are generally followed in the order they appear on the Workflow Administration page.

## Delete a rule

1. Select a rule from the **Rules** list.
2. Click **Remove Rule**.
3. Click **Save**.

## Create conditions for a rule

Each rule follows a set of conditions.

1. In the **Conditions** section, select **All** or **Any** from the **Match** drop-down list. When one or more conditions are set to an **Any** or **All Match** category, those conditions form a condition group.

**All**—The workflow must match all conditions in the condition group.

**Any**—The workflow must match any of the specified conditions in the condition group.

2. In the **Conditions** section, select an option from the **Condition** drop-down list.
  - **Agent, Group, or Team**—You can select the name of an agent, group, or team as the value. The condition applies to the call recordings of this specific agent, group, or team only. If the name of the agent, group, or team is edited, Webex WFO automatically updates the value in your condition to match the new name.
  - **Call Direction**—You can select Inbound or Outbound as the value. The condition applies to all inbound or outbound call recordings.
  - **All others**—You can enter a string as the value. The condition applies to all call recordings that contain the specified string in their metadata.

3. Select an option from the **Operator** drop-down list.
  - **Contains**—Search for values that contain the string in the Value field. This field is not case-sensitive. Contains implicit wildcards before and after the entered text. The asterisk ( \* ) and question mark ( ? ) wildcards are allowed.
  - **Contained in list**—Loads values from a file in a single column of values (or CSV). This automatically creates an Any condition group with the values. Each value allows the asterisk ( \* ) and the question mark ( ? ) wildcards.
  - **Is**—Search for an exact match. The asterisk ( \* ) and the question mark ( ? ) wildcards are allowed.
  - **Equals**—Search for score values that match your specified value. Number conditions allow “Less than” ( < ), “Greater than” ( > ), and “Equals” ( = ) operators.
 

**NOTE** When you use the Equals operator, the Value field is case-sensitive. If you are uncertain about the case of the string in the Value field, use the “Contains” operator.
  - **Begins With**— Search for values that begin with the string in the Value field.
  - **Less than**—Search for score values that are less than your specified value.
  - **Greater than**—Search for score values that are greater than your specified value.
  - **<metadata operator>**—Choose the metadata field to use. The value works like an “Is” operator that allows asterisk ( \* ) and question mark ( ? ) wildcards.
4. Select an option from the **Value** drop-down list. You can either select an option or enter a string, depending on the condition.

Wildcards can be used for both “Is” and “Contains” operators. “Contains” has implicit asterisk wildcards at the beginning and end of the text.

- The asterisk wildcard ( \* ) can represent any quantity of any characters, as long as the other characters in the string match.

**EXAMPLE** 61\* matches any number that starts with 61, such as 6124, 61555, and 613.

- The question mark wildcard ( ? ) can replace a single character in a string.

**EXAMPLE** 61?? matches any number that starts with 61 and is four digits long, such as 6124, 6125, and 6126.

5. (Optional) Click + to add a condition, – to delete a condition, or  to create a new condition group and repeat steps 1 through 4 for the new condition or condition group.
6. Click **Save**.

### Create actions for a condition

Actions define what happens when the conditions for a rule are satisfied.

1. Select and configure one or more of the following actions.
  - **Keep <n> % of Random voice recordings** **Keep <n> % of <type> voice recordings** — Keeps the specified percentage of voice recordings that match the specified type of contact.
  - **Keep <n> % of Random matching screen recordings** **Keep <n> % of <type> screen recordings**— Keeps the specified percentage of matching screen recordings that match the specified type of contact.
  - **Insert Metadata** — Allows you to insert the text specified in the field into the user-defined metadata field for the contacts that meet the workflow. You can [Manage metadata fields](#) from the Metadata Manager page.
  - **Set the evaluation form to <Evaluation Name>** — Select the evaluation form that you want to associate with contacts that meet the workflow.
  - **Set the reason code for the recording to <Reason Code>** — Choose the reason code that will be associated with this recording. If you do not choose a reason code, Archive is assigned by default.
  - **Keep <n> % of Random unmatched screen recordings** **Keep <n> % of <type> unmatched screen recordings**— An unmatched screen is recorded without audio for screen-only contacts. This action keeps the specified percentage of unmatched screen recordings that match the specified type of contact.
  - **Recycle Immediately** — Voice and screen recordings go immediately to the recycle bin and are not processed by any other event.

A typical example is for Do Not Keep phone numbers in the End Of Call event. Contacts that have these phone numbers as Calling/Called should not be recorded. Selecting Recycle Immediately sends them to the recycle bin, and they are not processed again in the Daily Event. This prevents a Do Not Keep list from being maintained in both End Of Call and Daily events.

- **Set the survey form to <Survey Name>** — Select the survey form you want to associate with contacts that meet the workflow conditions.

You must also select the Voice of the Customer (VoC) question and the evaluation threshold for that question. The VoC question must have a numeric answer format. If the customer's response for the VoC meets the evaluation threshold you define, the associated contact is marked for evaluation.

Survey forms are sent by email. Enter the Send From email, Reply To email, sender name, and email subject. For more information about sending survey forms, see [Configuring online survey providers](#).

**NOTE** If the value of this field is set to IVR, the **Send From Email, Reply To Email, Sender Name, and Email Subject** fields are not available.

- **Immediate Upload** — An option for Keep <n> % of Random voice, matching screen, and unmatched screen recordings. Audio recordings and screen recordings (matched or unmatched) associated with this workflow are immediately uploaded after the workflow completes. In an End of Call workflow, the recording is uploaded immediately after the recording ends. In a Daily workflow, the recording is uploaded when the daily workflow is scheduled to run. If this option is not selected, the normal upload setting rules are in effect. This option applies to all recording types. If you change this option during the day, the change goes into effect immediately.

Files that are uploaded immediately can affect bandwidth.

**BEST PRACTICE** If you are using Desktop Recording without a staged upload server, select Immediate Upload to limit the potential loss of audio recordings that are waiting to be uploaded when an agent's PC shuts down.

- **Retention Policy** — An option for Keep <n> % of Random voice, matching screen, and unmatched screen recordings. Choose the retention policy for the contacts that meet the workflow rules. The retention policy determines how long recordings are kept. The retention time starts based on the contact's start time.

**NOTE** Only one retention policy is allowed per contact.

2. Click **Save**.

## Field descriptions

Use the Workflow Administration page to create, edit, or delete a workflow.

## Configuring rules

Configure the rules for the workflow.

Field	Description
Rules	Create, edit, or delete rules. Use the keyboard arrows to change the order of the rules.
Name	The name of the rule. If you select an existing rule from the Rules table, the name of the rule appears in this field.
Save Rule	Add a rule to the workflow.
Remove Rule	Delete a selected rule from the workflow.  You can only delete one rule at a time.
Reset	Restore the last saved changes to the section.

## Configuring conditions

Configure the conditions for the workflow. The conditions determine which contact meets a rule.

Field	Description
Match	Choose one of the following options: <ul style="list-style-type: none"> <li>▪ All—The workflow must match all conditions in the condition group.</li> <li>▪ Any—The workflow must match any of the specified conditions.</li> </ul>
Condition	Choose one of the available conditions. The condition that you select determines which operators Webex WFO makes available. It also determines whether you can select an option or enter a string as the value. <ul style="list-style-type: none"> <li>▪ Agent, Group, or Team—You can select the name of an agent, group, or team as the value. The condition applies to the call recordings of this specific agent, group, or team only. If the name of the agent, group, or team is edited, Webex WFO automatically updates the value in your condition to match the new name.</li> <li>▪ Call Direction—You can select Inbound or Outbound as the value. The condition applies to all inbound or outbound call recordings.</li> </ul>

Field	Description
	<ul style="list-style-type: none"> <li>▪ All others—You can enter a string as the value. The condition applies to all call recordings that contain the specified string in their metadata.</li> </ul>
Operator	<p>Create a rule based on an operator value. Choose one of these options:</p> <ul style="list-style-type: none"> <li>▪ Contains—Search for values that contain the string in the Value field. This field is not case-sensitive. Contains implicit wildcards before and after the entered text. The asterisk ( * ) and question mark ( ? ) wildcards are allowed.</li> <li>▪ Contained in list—Loads values from a file in a single column of values (or CSV). This automatically creates an Any condition group with the values. Each value allows the asterisk ( * ) and the question mark ( ? ) wildcards.</li> <li>▪ Is—Search for an exact match. The asterisk ( * ) and the question mark ( ? ) wildcards are allowed.</li> <li>▪ Equals—Search for score values that match your specified value. Number conditions allow “Less than” ( &lt; ), “Greater than” ( &gt; ), and “Equals” ( = ) operators.</li> </ul> <p><b>NOTE</b> When you use the Equals operator, the Value field is case-sensitive. If you are uncertain about the case of the string in the Value field, use the “Contains” operator.</p> <ul style="list-style-type: none"> <li>▪ Begins With— Search for values that begin with the string in the Value field.</li> <li>▪ Less than—Search for score values that are less than your specified value.</li> <li>▪ Greater than—Search for score values that are greater than your specified value.</li> <li>▪ &lt;metadata operator&gt;—Choose the metadata field to use. The value works like an “Is” operator that allows asterisk ( * ) and question mark ( ? ) wildcards.</li> </ul>

Field	Description
Value	<p>Value for this condition. You can either select an option or enter a string, depending on the condition.</p> <p>Wildcards can be used for both “Is” and “Contains” operators. “Contains” has implicit asterisk wildcards at the beginning and end of the text.</p> <ul style="list-style-type: none"> <li>▪ The asterisk wildcard ( * ) can represent any quantity of any characters, as long as the other characters in the string match. <p><b>EXAMPLE</b> 61* matches any number that starts with 61, such as 6124, 61555, and 613.</p> </li> <li>▪ The question mark wildcard ( ? ) can replace a single character in a string. <p><b>EXAMPLE</b> 61?? matches any number that starts with 61 and is four digits long, such as 6124, 6125, and 6126.</p> </li> </ul>
Import	Browse to a CSV or TXT file that contains a single column of data based on the selected condition. This button appears only when the operator is “Contained in list.”
<number> Rows	(Read-only) Displays the number of rows in the imported CSV file.
	(Export Table Data to CSV) Export the selected data to CSV.
	(Add) Add a condition in the current condition group.
	(Delete) Remove a condition in the current condition group.
	Create a new condition group. You can specify multiple condition groups.

The following conditions are available by default. You can also select any custom metadata that you add.

Condition	Description
Agent	Applies only to the specific agent that you select as a value. The operator is Equals by default and cannot be changed.
Group	Applies only to the specific group that you select as a value. The operator is Equals by default and cannot be changed.
Team	Applies only to the specific team that you select as a value. The operator is Equals by default and cannot be changed.
Agent First Name	Applies to all users' first names that match the operator you select and the value you enter.
Agent Last Name	Applies to all users' last names that match the operator you select and the value you enter.
Agent Username	Applies to all users' Windows logins that match the operator you select and the value you enter. In an Active Directory environment, this condition is the Active Directory login of your users.
Agent Email	Applies to all users' user names that match the operator you select and the value you enter. In Webex WFO, this condition is the email address of your users.
Team Name	Applies to all teams that match the operator you select and the value you enter.
Group Name	Applies to all groups that match the operator you select and the value you enter.
Call Direction	Applies to all calls that match the direction you select: inbound or outbound.
Call Duration (seconds)	Applies to all calls whose length matches the operator you select and the value you enter.
Calling Number	Applies to all calls whose calling number matches the operator you select and value you enter.
Called Number	Applies to all calls whose called number matches the operator you select

Condition	Description
	and the value you enter.
Phone Number	Applies to all calls whose calling number or called number matches the operator you select and the value you enter.
Agent Length of Employment (days)	Applies to all agents whose length of employment matches the operator you select and value you enter.

### Configuring actions

Configure the actions for the workflow. The actions define what happens to contacts that satisfy the rules.

Field or button	Description
Keep <n> % of Random voice recordings	Keeps the specified percentage of voice recordings that match the specified type of contact.
Keep <n> % of Random matching screen recordings	Keeps the specified percentage of matching screen recordings that match the specified type of contact.
Insert Metadata	Allows you to insert the text specified in the field into the user-defined metadata field for the contacts that meet the workflow. You can <a href="#">Manage metadata fields</a> from the Metadata Manager page.
Set the evaluation form to <Eval Name>	Select the evaluation form that you want to associate with contacts that meet the workflow. <div style="border-left: 5px solid #0070C0; padding-left: 10px; margin-top: 10px;"> <p><b>NOTE</b> If the value of this field is set to IVR, the <b>Send From Email, Reply To Email, Sender Name, and Email Subject</b> fields are not available.</p> </div>
Set the reason code for the recording to	Choose the reason code that will be associated with this recording. If you do not choose a reason code, Archive is assigned by default.
Keep <n> % of <type> unmatched screen recordings	An unmatched screen is recorded without audio for screen-only contacts. This action keeps the specified percentage of unmatched screen recordings that match the specified type of contact.
Keep <n> % of Random unmatched screen recordings	

Field or button	Description
Recycle Immediately	<p>Voice and screen recordings go immediately to the recycle bin and are not processed by any other event.</p> <p>A typical example is for Do Not Keep phone numbers in the End Of Call event. Contacts that have these phone numbers as Calling/Called should not be recorded. Selecting Recycle Immediately sends them to the recycle bin, and they are not processed again in the Daily Event. This prevents a Do Not Keep list from being maintained in both End Of Call and Daily events.</p>
Set the survey form to <Survey Name>	<p>Select the survey form you want to associate with contacts that meet the workflow conditions.</p> <p>You must also select the Voice of the Customer (VoC) question and the evaluation threshold for that question. The VoC question must have a numeric answer format. If the customer's response for the VoC meets the evaluation threshold you define, the associated contact is marked for evaluation.</p> <p>Survey forms are sent by email. Enter the Send From email, Reply To email, sender name, and email subject. For more information about sending survey forms, see <a href="#">Configuring online survey providers</a>.</p>
Immediate Upload	<p>An option for Keep &lt;n&gt; % of Random voice, matching screen, and unmatched screen recordings.</p> <p>Audio recordings and screen recordings (matched or unmatched) associated with this workflow are immediately uploaded after the workflow completes. In an End of Call workflow, the recording is uploaded immediately after the recording ends. In a Daily workflow, the recording is uploaded when the daily workflow is scheduled to run. If this option is not selected, the normal upload setting rules are in effect. This option applies to all recording types.</p> <p>Files that are uploaded immediately can affect bandwidth.</p> <p><b>NOTE</b> If you change this option during the day, the change goes into effect immediately.</p>

Field or button	Description
	If you are using Desktop Recording without a staged upload server, select Immediate Upload to limit the potential loss of audio recordings that are waiting to be uploaded when an agent's PC shuts down.
Convert on Upload	<p>An option for Keep &lt;n&gt; % of Random voice, matching screen, and unmatched screen recordings.</p> <p>The server converts uploaded recordings from the recording format to the storage format. If you do not select this option, the recording is not converted until it is played back.</p> <p>Screen recording and storage formats are the same by default (WebM Video - VP8). For audio recordings, the recording format is encrypted OPUS, and the storage format is WebMA Audio - Vorbis.</p>
Retention Policy	Choose the retention policy for the contacts that meet the workflow rules. The retention policy determines how long recordings are kept. The retention time starts based on the contact's start time.

## Related topics

- [About workflow administration](#)—Learn more about workflow event types and how Webex WFO handles conflicting workflows.

### About workflow administration

Learn more about QM workflows, including the differences between End of Call (EOC) and Daily event types and how Webex WFO handles conflicting workflows.

### Event types

The EOC and Daily event types determine at which point after a contact the workflow process takes place.

After you select an event type, you can configure workflows to take a variety of actions. See [Automate QM workflows](#) for a complete list of workflow actions.

The logic applied to the three actions listed below varies depending on if the action is applied to a daily or EOC event. Details on the differing logic can be found in the sections on [Daily events](#) and [End of Call events](#).

- Keep <n> % of random voice recordings
- Keep <n> % of random matching screen recordings
- Keep <n> % of random unmatched screen recordings

Where <n> indicates a text field, check box, or drop-down list where a unique value can be set.

### ***Daily events***

Daily events are when a workflow processes all recordings once a day. If there are calls still being recorded when a daily workflow is executed, those calls are uploaded when the next daily workflow runs. Daily workflows can be configured for actions that allow you to keep a certain percentage of voice or screen recordings. Webex WFO calculates daily workflows using an exact percentage. Meaning, if you configure a workflow to keep 20% of random voice recordings, then 20% of random voice recordings will be kept when the workflow processes.

### ***End of Call events***

End of Call (EOC) events are when the workflow processes the recording at the end of each individual call. Unlike daily workflows, EOC workflows are calculated at the end of each contact using a calculated approximate percentage. Webex WFO estimates the percentage for all contacts because only the data for the current contact and earlier contacts is available at the time of processing. To estimate this percentage, the system uses logic similar to a deck shuffle model to decide what happens to the contact.

In the deck shuffle model, a theoretical deck is assigned to each agent. This deck consists of cards to keep and cards to discard in proportion to the configured keep <n> % of media action, such as keep <n> % of voice recordings. Where <n> indicates a text field, check box, or drop-down list where a unique value can be set. Webex WFO shuffles the deck, and then for each contact Webex WFO draws the card from the top of the deck and keeps or discards the contact based on that card. The deck is reshuffled when Webex WFO reaches the end of the deck. The deck shuffle model ensures that contacts are not over represented or under represented in proportion to the percentage of contacts you configured Webex WFO to keep.

**IMPORTANT** If an agent takes fewer than 10 calls in a day, then the actual percentage is not guaranteed to match the percentage you configured for the EOC workflow.

### **QM workflow conflicts**

For most workflows, you can select multiple concurrent actions. However, conflicts can happen when you configure actions that are not compatible. Every action that can potentially trigger conflicts is listed below.

**NOTE** These actions on their own do not trigger conflicts. It is only a few select combinations of these actions that can trigger conflicts.

- Keep <n> % of Random voice recordings
- Keep <n> % of Random matching screen recordings
- Keep <n> % of Random unmatched screen recordings
- Recycle Immediately Voice Recordings
- Recycle Immediately Screen Recordings.

**EXAMPLE** A workflow is configured to **Keep 10 % of random voice recordings**, and **Recycle Immediately Voice Recordings**. The system is being asked to do two opposing actions, which are keeping and recycling voice recordings. This creates a conflict.

### **Conditional statements**

The conditional statements below show all of the specific scenarios that trigger conflicts by showing the configurations of two conflicting actions in head-to-head match ups and the final outcome of which of the competing actions wins. When an action wins, Webex WFO follows the winning action and disregards the losing action.

<b>If:</b>	<b>Then:</b>
There is an EOC Recycle Immediately workflow and Daily Keep <n> % of media workflow.	The EOC Recycle Immediately workflow is followed.
There is an EOC Recycle Immediately workflow and Daily Recycle Immediately workflow.	The EOC Recycle Immediately workflow is followed.
There is an EOC Keep <n> % of media workflow and Daily Recycle Immediately workflow.	The EOC Keep <n> % of media workflow is followed. The EOC configured Upload Time and Retention Policy are followed.
There is an EOC Keep <n> % of media workflow and Daily Keep <n> % of media workflow.	The EOC Keep <n> % of media workflow is followed. The EOC configured Upload Time is followed and the Daily Retention Policy is followed.

**IMPORTANT** Generally, if there is a conflict between two workflows, then the workflow that is configured to run first is followed.

**IMPORTANT** Generally, if there are two workflows with conflicting retention policies, then the workflow that was most recently updated is followed.

## Related topics

- [Automate QM workflows](#)—Learn more about how to configure workflows.

### Manage data retention policies

Use the Retention page to create a retention policy that defines how long each contact is retained, and then assign the policy to a workflow (see [Automate QM workflows](#)). By default, the maximum retention time for voice and screen recordings is two years. The system administrator can set a different maximum retention time.

You can specify retention times for voice and screen recordings for these contact types:

- Unscored contact
- Scored contact
- HR contact
- Training contact
- Tagged contact
- Archive contact

Each component of a contact (for example, audio recording, screen recording, or root recording) can have its own retention policy. Webex WFO deletes the recording storage files when all applicable storage policies expire. A recording storage file might be associated with zero or more contacts as well as zero or one root recordings. (See [Configure QM global settings](#) to set the retention policy for root recordings.)

## Prerequisites

- You have the Administer QM permission

## Page location

Application Management > QM > QM Contact Flows > Retention

## Procedures

### Create a retention policy

1. Select **Create a new retention policy**.
2. Enter the policy's name in the **Retention Policy** field.
3. In the **Settings** section, select the retention periods for each type of contact.
4. Click **Save**.
5. Go to the Workflow Administration page to assign the retention policy to a workflow (see [Automate QM workflows](#)).

### Edit a retention policy

**NOTE** Shortening a retention period can result in recordings being deleted. Lengthening a retention period will use more storage space.

1. Select **Edit an existing retention policy**.
2. Select the policy from the **Retention Policies** drop-down list.
3. Edit the policy as needed and then click **Save**.

If a call is tagged, Webex WFO deletes its screen and voice recordings at the end of the Tagged retention times for screen and voice. Webex WFO deletes metadata associated with a call when the longest Tagged retention time is reached.

Teams assigned to a workflow share the same retention period. Once Webex WFO assigns a retention period to a call, the period does not change if a team is moved from one workflow to another workflow. Only calls that are recorded after the switch to the new workflow use the new workflow's retention period.

## Related topics

- [Automate QM workflows](#)—Assign contacts to retention policies via workflows
- [Configure QM global settings](#)—Set the retention policy for root recordings

### Configure staged upload

Recordings can be moved from agent PCs to the cloud in three different ways. All three methods require QM workflow events and agent PCs with Smart Desktop.

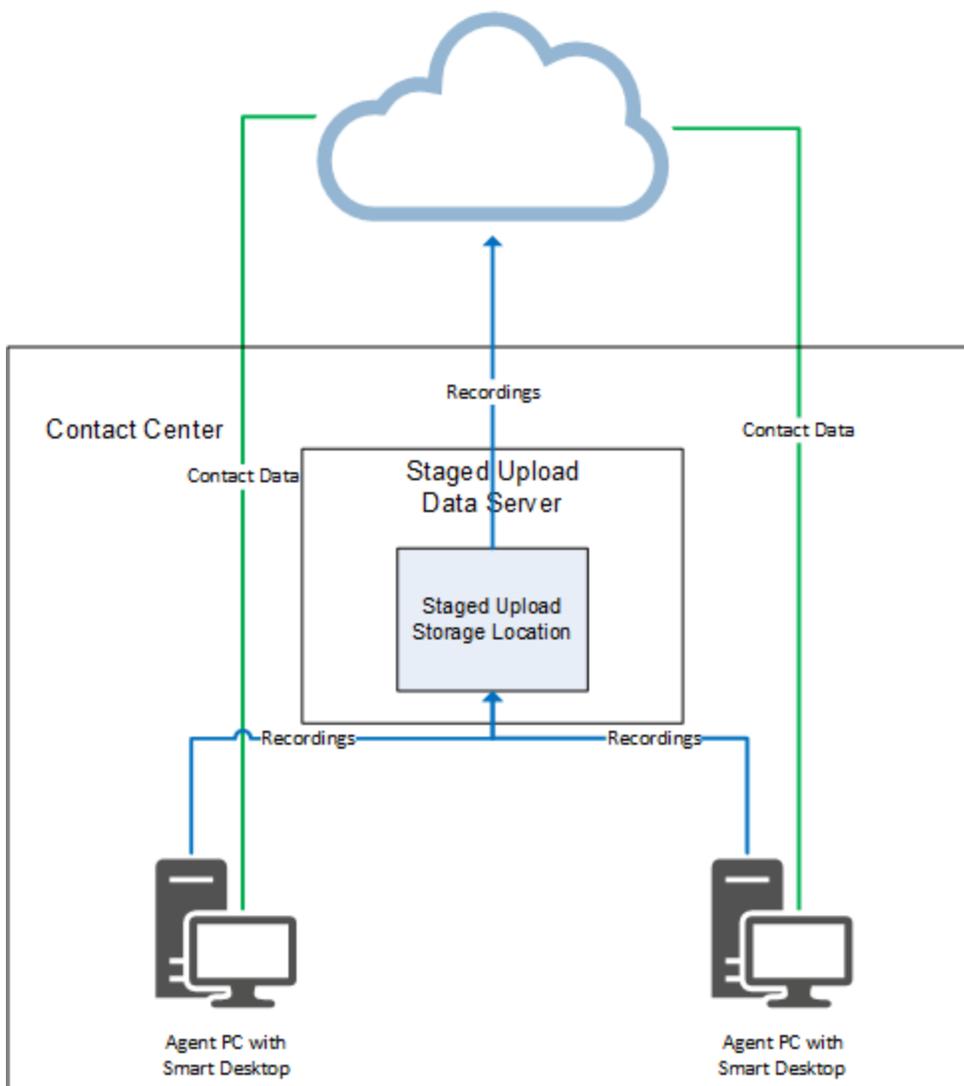
## Record and evaluate interactions | Record interactions

- Upload recordings to the cloud immediately after a contact completes.
- Store recordings on an agent's PC and then upload them to the cloud once a day.
- Upload recordings to a Data Server in your contact center immediately after a contact completes (stage one) and then move them to the cloud once a day (stage two).

This topic covers only the third option, called “staged upload.” Staged upload lets you keep your recordings in a secure location without overloading your internet bandwidth.

Contacts handled with Staged Upload appear on the Recordings page after they are finished recording, but they have a “Not yet uploaded” File Upload State until the staged upload process is complete.

The following image shows the data flow for a basic staged upload configuration.



## Prerequisites

- Agents are enabled for audio and/or screen recording.
- Agent PCs have Smart Desktop installed.
- You have all of these permissions:
  - Administer Tenant
  - Administer Org. Structure (needed to use teams to associate agents with the Staged Upload Data Server)
  - Administer Workflow

## Page location

Varies. See the procedures below for details.

## Procedures

There are four steps to setting up Staged Upload:

- [Step 1: \(Optional\) identify agents who will use staged upload](#)
- [Step 2: Configure the staged upload component](#)
- [Step 3: Associate agents with the Staged Upload Data Server](#)
- [Step 4: Configure a daily event workflow rule for staged upload](#)

### **Step 1: (Optional) identify agents who will use staged upload**

Step 1 is a planning step, not a configuration step. We recommend that you first identify the agents who will use staged upload so that you can create the necessary configurations with those agents in mind. All agents in your contact center can use staged upload, or only some of them.

### **Step 2: Configure the staged upload component**

#### ***Configure the Staged Upload Data Server***

- Enable the SMB 1.0 File Sharing Support feature on the server that you will use for staged upload.

**Create the staged upload storage location**

1. Create a folder in the location where you want to store recordings before they are uploaded to the cloud. This location can be on the Data Server, or it can be in another location (for example, NAS).
2. Configure the folder's sharing properties so that agent PCs can access it. If the folder is not on the Data Server, you must also configure the sharing properties so that the Data Server can access it.
3. Copy the UNC path to the folder. You will use this later.

**Enable the staged upload component**

1. Navigate to Application Management > Global > System Configuration > Data Server Configuration.
2. Select the Data Server to use for staged upload from the **Select Data Server Configuration** drop-down list.
3. Under **Regional Data Server Staged Upload Settings**, select **Enable Staged Upload**. Additional fields appear.
4. Configure the fields as follows.

Field	Configuration
Location	The UNC path to the staged upload storage location that you copied earlier. Agent PCs must be able to access this location.  <b>EXAMPLE</b> \\ServerName\FolderName
Username	The user name of the person who administers the Staged Upload Data Server.  <b>EXAMPLE</b> Domain\user.name
Password	The password of the person who administers the Staged Upload Data Server.

5. Click **Save**.

**Step 3: Associate agents with the Staged Upload Data Server**

This step enables agent PCs to send recordings to the staged upload storage location, where the recordings are stored until the QM workflow daily event (configured in Step 4) runs and uploads them to the cloud.

**NOTE** Recordings for any agent who is not associated with the Staged Upload Data Server will upload according to the first QM workflow event with matching conditions. This can result in immediate upload to the cloud or delayed upload to the cloud where recordings remain on the agent's PC longer than desired.

You can associate agents with the Staged Upload Data Server in one of three ways: IP addresses, teams, or both IP addresses and teams.

### ***Use IP addresses to associate agents with the Staged Upload Data Server***

1. Navigate to Application Management > Global > System Configuration > Data Server Configuration.
2. Select the Staged Upload Data Server from the **Select Data Server Configuration** drop-down list.
3. In the **Staged Upload IP Address Filter Configuration** section, enter at least one range of IP addresses in CIDR notation. Any agent whose PC has an IP address matching this range is associated with the Staged Upload Data Server.

**IMPORTANT** This IP address range must include the IP addresses of all PCs of all agents who will use staged upload. The address must identify the public or external network that the agents' desktops communicate from. If your organization uses a NAT firewall, do not use the address for its local or internal subnetwork.

#### Staged Upload IP Address Filter Configuration

Use this section to indicate which IP address ranges are handled by the data server for staged uploads. IP addresses must be specified in CIDR notation.

IP Address Ranges	
192.168.100.0/22	 
<input type="text"/>	
<input type="button" value="Save"/>	

4. Click **Save**.

### ***Use teams to associate agents with the Staged Upload Data Server***

You can assign the Staged Upload Data Server to one or more teams and then assign all the agents who will use staged upload to one of these teams.

1. Navigate to Application Management > Global > User Configuration > Teams.
2. Select the team to associate with the Staged Upload Data Server from the **Select a Team** drop-down list.

- Under **Users**, move the agents to assign to this team from **Available** to **Assigned**.

**NOTE** You can also assign individual users to teams on the Users page.

- Under **Staged Upload Location**, select the Staged Upload Data Server.
- Click **Save**.

#### ***Use both IP addresses and teams to associate agents with the Staged Upload Data Server***

- Associate the agents' IP addresses with the Staged Upload Data Server [as described above](#).
- Associate the agents with a Staged Upload Data Server team [as described above](#).

Various configurations with agent teams and IP addresses produce different results. The table below identifies whether an agent does or does not use staged upload based on these configurations.

Agent team associated with Data Server?	PC in IP filter	PC not in IP filter	No IP filter used
Yes	Uses staged upload	Does not use staged upload	Uses staged upload
No	Uses staged upload	Does not use staged upload	Does not use staged upload

#### **Step 4: Configure a daily event workflow rule for staged upload**

Rules are composed of actions and conditions. An action is what Webex WFO does with a recording.

Conditions are criteria that a recording must meet for the action to happen. This rule sends recordings from agent PCs to the staged upload storage location (configured in Step 2) instead of storing them on agent PCs or uploading them immediately to the cloud. For more information about configuring rules for QM workflow events, see [Automate QM workflows](#).

#### ***Create a rule for staged upload***

- Navigate to Application Management > QM > QM Contact Flows > Workflow Administration.
- Select **Daily Event**.
- Under **Time**, select the time to upload recordings from the staged upload storage location to the cloud.
- Enter a unique name for the rule in the **Name** field.
- Click **Save Rule**.

- Select the rule from the **Rules** list.
- In the **Conditions** section, specify criteria that apply to all recordings captured by the PCs of all agents who will use staged upload.

**EXAMPLE**

All the agents who will use staged upload are assigned to the Staged Upload Team. The condition looks like this:

Match  of following the conditions.

Condition	Operator	Value
<input type="text" value="Team Name"/>	<input type="text" value="is"/>	<input type="text" value="Staged Upload Team"/> +  

- In the **Actions** section, create an action that prevents voice and screen recordings from being immediately uploaded.

**IMPORTANT** At a minimum, you must clear the **Immediate Upload** check boxes for voice and screen recordings. A workflow rule that is configured with immediate upload always uploads recordings to the cloud immediately, even if a Staged Upload Data Server is configured and agents are associated with it.

**EXAMPLE**

All voice and screen recordings that meet the criteria you specified in the Conditions section will be handled by staged upload. The actions look like this:

Keep 100 % of Random voice recordings.

Immediate Upload (\*) 9:00 PM

Convert on Upload (\*\*)

Retention Policy Legal Department

Keep 100 % of Random matching screen recordings.

Immediate Upload (\*) 9:00 PM

Convert on Upload (\*\*)

Retention Policy Legal Department

9. (Optional) Refine the conditions and actions further if needed. Steps 7 and 8 provide the minimum configuration necessary.
10. If you use rules for other purposes besides staged upload, order the rules to prevent any conflicts. Webex WFO processes each recording according to the first rule in the list whose conditions match it. See [About workflow administration](#) for more information about potential conflicts between workflow rules.
11. Click **Save**.

## Related topics

- [Manage roles and permissions for QM and Analytics](#)—Learn about the permissions needed to enable agents for recording.
- [Configure the Data Server](#)—More information about the settings available for Data Servers.
- [Manage teams for QM and Analytics](#)—More information about configuring teams.
- [Automate QM workflows](#)—Detailed information about automating how Webex WFO handles recordings.
- [About workflow administration](#)—Additional information about how workflows work.

## Manage what interactions are recorded

Use the Inclusion/Exclusion page to proactively manage which contacts are automatically recorded and which contacts are automatically excluded from being recorded. Recording rules determine how Webex WFO includes or excludes phone numbers from recording. You can have multiple include and exclude rules.

**EXAMPLE** Create rules to exclude all outgoing contacts from recording, record all contacts that begin with “612822,” or record all calls from the United Kingdom.

## Prerequisites

You have the Administer QM permission.

## Page location

Application Management > QM > QM Contact Flows > Inclusion/Exclusion

## Procedures

**NOTE** The exact steps for these procedures apply to the redesigned Inclusion/Exclusion page. You can do the same things using the old Inclusion/Exclusion page, but the steps are slightly different.

**IMPORTANT** By default, Webex WFO records all calls. If fields in the exclusion rule (such as the pattern type or direction) are missing, are incomplete, or use wildcard characters inaccurately, Webex WFO records these calls.

**EXAMPLE** You create an Inclusion rule to record only calls with a Called Number of 1234567. A call comes in, but the ACD does not supply a Called Number. You have not created an Exclusion rule to exclude calls with an empty Called Number. Webex WFO records this call.

## Create a recording rule

1. Click **Add New Rule**. The **Add New Rule** window opens.
2. Select **Inclusion** to record calls or **Exclusion** to exclude calls.
3. Enter the phone number in the **Pattern** field. Do not use hyphens. You can use wildcards in this field to create rules that apply to multiple numbers:
  - ? — A single digit

**EXAMPLE** 612822???? = all numbers that begin with 612-822.

- \* — Any number of digits

**EXAMPLE** 612\* = all numbers that begin with 612.

- + — Country code indicator (must be the first character in the field)

**EXAMPLE** +44 = contacts in the United Kingdom.

- EMPTY — The ACD does not supply data for this field.

4. Select the characteristics of the call from the **Pattern Type** field.

- Calling Number—The ANI
- Called Number—The DNIS
- Extension
- Phone Number—Some ACDs populate data in a field named Phone Number if the Calling Number or Called Number is empty. You can create rules with this pattern type if your ACD does this.
- Any—Some ACDs populate data in a field named Any if the Calling Number or Called Number is empty. You can create rules with this pattern type if your ACD does this.

5. Select the call **Direction**.

6. Click **Add Rule**. The **Add New Rule** window closes, and the rule appears on the page in italicized font.

7. Click **Save**. The new rule is no longer italicized.

## Edit a rule

1. Hover over the **Actions** area next to the rule, and click **Edit**. The **Edit Rule** window opens.
2. Edit the rule as needed.
3. Click **Update**. The **Edit Rule** window closes, the rule is italicized, and the Reset icon appears in the **Actions** column.
4. Click **Save**. The rule is no longer italicized, and the Reset icon disappears from the **Actions** column.

## Delete a rule

1. Hover over the **Actions** area next to the rule, and click **Delete**. The rule is italicized with a red background, and the Restore icon appears in the **Actions** column.
2. Click **Save**. The rule disappears from the list.

## Import a list of recording rules

**BEST PRACTICE** To make sure that your import is formatted correctly, first [Export a list of recording rules](#), edit the list as needed, and import it.

1. Click the options icon (three dots) at the upper left of the page.

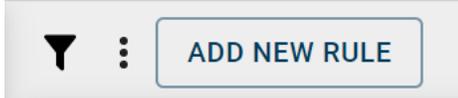


2. Select **Import Recording Rules**.
3. Select the file to upload. Uploaded rules are italicized with a blue background.
4. Click **Save**. New rules are no longer italicized.

## Export a list of recording rules

**IMPORTANT** If you export a list that includes an international calling code with the plus (+) sign, Excel treats the number as a mathematical expression. To use these lists, convert the exported .CSV file to text (.TXT), open the file in Excel, and define this as a text formatted column.

1. Click the options icon (three dots) at the upper left of the page.



2. Select **Export Recording Rules**. A CSV file downloads to your device.

## Related topics

- [Automate QM workflows](#)—Create rules that tell Webex WFO what to do with recordings.

## Export contact metadata

You can export metadata for all the contacts in your filter results as a CSV file.

**NOTE** The metadata that can be exported is determined by the administrator. Webex WFO includes exportable metadata only in the CSV file.

### To export contact metadata:

1. Filter contacts as desired. See [Find interactions](#).
2. Click the **List options** icon.
3. Click **Export table data to CSV**.

### Record on demand

Quality Management workflows can handle most recording situations, but you might encounter a situation that isn't covered by a workflow. The Recording Controls page allows you to override these workflows and work with calls directly.

### Prerequisites

- You have the Recording Controls set of permissions.
- Your organization has configured metadata for contacts (needed to [Attach metadata to a contact](#)).
- Your organization has configured tagging (needed to [Tag a call for a different retention time](#)).

### Page location

Recording Controls

### Procedures

#### Log in to Recording Controls

This is always the first step in using Recording Controls.

1. Click **Log In**.
2. Enter your extension in the **Telephone Extension** field.
3. Click **Submit**.

#### Record your screen

These steps record only your screen, not audio. You can record your screen even if you're not on a call, so this feature lets you record chat or email interactions.

1. Click **Start Screen**.
2. Click **Stop Screen** when you are finished recording.

## Pause the recording

You might want to pause a recording if you are handling sensitive information, such as credit card numbers. This procedure pauses both screen and audio recording. When you play back the contact, the audio is silent during the pause, and the screen shows a *pause* symbol.

1. Click **Pause**.
2. Click **Resume** to continue recording.

## Immediately delete part of a recording

This process is similar to [Pause the recording](#), but it automatically deletes the part of the call that you don't want to record instead of keeping part of the recording silent.

1. While the call is being recorded, click **Segment and Save** before the confidential part of the interaction begins.

**EXAMPLE** You are helping a customer place an order. You click **Segment and Save** right before the customer gives you their credit card number.

2. Click **Segment and Delete** when the confidential part of the call is over.

**IMPORTANT** When you click **Segment and Delete**, Webex WFO immediately deletes the confidential part of the call. This segment does not go to the recycle bin.

3. Click **Stop Screen** when you are finished recording.

## Mark a segment of a call

Marking a call segment is like putting a bookmark inside the call. There are two situations when you might want to mark a call segment:

- If you are on a call that would not normally be recorded, you can start both audio and screen recording.
- If you are on a transfer or conference call, you can mark when the call was transferred or when another person was added to the call.

1. Click **Segment and Save**.
2. Click **Stop Screen** when you are finished recording.

## Attach metadata to a contact

If your organization uses metadata for contacts, you can attach metadata to contacts that you record with Recording Controls. You can attach metadata to an active call and to the most recent call. You cannot attach metadata to calls older than that.

1. Click **Add Metadata**.
2. Select the metadata type from the **Metadata Key** drop-down list.
3. Enter the metadata value in the **Metadata Value** field.

**EXAMPLE** You need to add a comment to the contact recording. You select **Comment** from the **Metadata Key** drop-down list and enter your comment in the **Metadata Value** field.

4. Click **Submit**.

### Tag a call for a different retention time

Your Webex WFO administrator controls how long recordings are available. However, you can give a contact a different retention time by tagging it. Tagging a contact applies whatever retention period your organization has set up for tagged contacts.

- Click **Tag**.

### Related topics

- [About Recording Controls](#)—In-depth information about how Recordings Controls work.
- [Automate QM workflows](#)—Settings for which recordings to keep and delete.
- [Manage what interactions are recorded](#)—Settings for automatically recording contacts.
- [Manage metadata fields](#)—Background work for attaching metadata to a contact.
- [Tag a contact](#)—Background work for tagging contacts.

### About Recording Controls

This section provides you with more information about how the Recording Controls buttons work.

### Login

Clicking **Login** associates yourself with the specific extension for hoteling and logs you in to Recording Controls.

## Start Screen

If QM is not currently recording an active call, clicking **Start Screen** starts a screen-only recording. If you receive a phone call or make a call during this time, a separate voice and screen contact might be created according to workflow criteria (or you can use **Segment and Save** and **Segment and Delete** to create the contact). When the active call ends, another screen-only contact is created and continues until you click **Stop Screen**.

If QM is currently recording an active call, clicking **Start Screen** does nothing to the current recording, but the screen-only recording begins after the active call ends (if you do not click **Stop Screen**). The call recording and the screen-only recording are saved as separate contact recordings.

## Stop Screen

Stop Screen only works if you previously clicked **Start Screen**. If you do not click **Stop Screen** after **Start Screen**, the maximum contact recording length is four hours.

## Segment and Save

Clicking **Segment and Save** starts the audio and screen recording of an active call. If QM does not automatically record the call (for example, the caller's phone number is on the exclusion list, or the call does not meet workflow criteria for being recorded), this button lets you record it and treat it as a normal contact. Segment and Save overrides the exclusion list (configured in Application Management > QM Contact Flows > Inclusion/Exclusion) because the root call does not know the agent's identity when recording (see [About root calls and reconciliation](#)).

If QM is currently recording an active call, Segment and Save does nothing.

## Segment and Delete

Clicking **Segment and Delete** stops the audio and screen recording of an active call. The recording made up to that point is discarded immediately. The recording resumes after you click **Segment and Delete** and is saved according to workflow criteria as a new contact.

## Pause

Pause helps you adhere to the Payment Card Industry Data Security Standard (PCI DSS) for protecting consumer data.

Pause affects both voice and screen recording and works for active calls only. Clicking **Pause** for a call that is already paused does nothing. You must click **Resume** to continue recording. Pause does not affect live monitoring.

Calls are available for playback prior to reconciliation, with silence where you used Pause.

## Resume

Resume affects both voice and screen recording and works for active calls only. If the call is not currently paused, Resume does nothing. If you do not click **Resume**, the point at which you paused the recording is the end of the audio recording.

During post-call processing, clicking **Resume** does not appear as a mutual silence event or talk over event.

## Metadata

Clicking **Metadata** attaches metadata to an active call. If QM does not upload the current call for archiving because of workflow criteria, then the metadata is uploaded to the database but does not appear in the interface. You can attach metadata to a call only if the metadata is defined on the Metadata Manager page (Application Management > QM Configuration > Metadata Manager).

You can associate a maximum of 100 metadata items with a call. You can click **Metadata** 100 times, each time using one key/value pair, or click **Metadata** once and use 100 key/value pairs. Specifying an empty value for a key removes that metadata field association for the call.

Valid formats for metadata are as follows.

Metadata Type	Data Format
Date	YYYY-MM-DD
Numbers	<ul style="list-style-type: none"><li>Can start with and contain a decimal point</li><li>Cannot end with a decimal point or contain a comma</li></ul>
Text	Can include all alphanumeric characters except for the ampersand ( & ), less than ( < ) or greater than ( > ) characters

## Security features for recordings

All recordings have the following security features:

- Encryption—All data is encrypted and transported via HTTPS/SSL from a customer’s premises to the Webex WFO cloud platform for processing and storage.
- Role-based permissions—Only authorized users can play back or export recordings.
- Audit trail—The system tracks who accesses recordings, what they access, and when they access it.
- Payment Card Industry (PCI) compliance—Webex WFO complies with the industry standard comprehensive requirements for enhancing payment account data security.

In cloud deployments, the available encryption method is RSA-2048 (with asymmetric keys) and AES-256 for media recorded by Webex WFO.

## View recording reports

For information about the standard QM and WFM reports that come with Webex WFO, and for instructions on how to run a standard report, see [Standard reports](#).

**NOTE** These standard Webex WFO reports show an agent’s current team, not the team the agent belonged to at the time a recording was made. Reports created with Data Explorer and the contacts listed on the Recordings page show the team an agent belonged to at the time the recording was made.

## Find interactions

You can find contacts within your scope by using one or more filters. For example, you can use filters to find all contacts handled by a specific person or recorded within a specific date range. The Filters icon (top left of the page) lists the number of filters you are currently using.



Each filter has at least one criterion. For example, the Evaluator Name filter has two criteria: First Name and Last Name. To appear in the filter results, a contact must meet all the criteria of every filter you use. For available filters and their criteria, see [Filter descriptions](#).

## Prerequisites

- Your role and scope allow you to view recordings.
- Some filters require specific permissions. See [Filter descriptions](#) for more information.
- Some filters require Webex WFO Analytics. See [Filter descriptions](#) for more information.

## Page location

Recordings

## Procedures

### Filter interactions

1. Click the **Filter list** icon (top left of the page). The Filters panel opens to show either the last filters you used or the default filter set.

The table below shows the default filter set. To load this set at any time, click **Reset**.

Filter	Criteria
Date Range	Past Month
Organization	Group: All Team: All Agent: All (active agents)
Search Scope	All Evaluations

2. Click **Add Filter**. The Choose Filters dialog box opens.
3. Click a filter in the **Available** column to add it, or click a filter in the **Selected** column to remove it.

**NOTE** You must include at least one of the following required filters: Contact ID, Date Range, or Specific Date. If your filter set includes only one required filter, you cannot remove that required filter unless you add a second required filter.

4. Click **Update Filters**. The Choose Filters dialog box closes.
5. Click each filter and choose its criteria.
6. Click **Apply**. Recordings that meet all of the criteria in the filter set display. The Filter Contacts Snapshot (top right of the page) updates with information for the displayed recordings.

**AQP: 87%, ATT: 00:02:58**

- AQP—Average Quality Percentage. The average evaluation score for the contacts.

- **ATT**—Average Talk Time. The average time it took an agent to handle a call. Talk time begins when an agent answers a call and ends when the agent disconnects or transfers it, including hold time.

### Save a filter set

A group of filters and criteria that you use together is called a “filter set.” You can save a filter set and use it again later.

1. Filter interactions to choose the filters and criteria you want to save (see [Filter interactions](#) for details).
2. Click the **Save** icon . The Save Filter Set dialog box opens.
3. Enter a name for the filter set in the **New Filter Set Name** field.
4. Click **Save**. The Save Filter Set dialog box closes, and the name appears in the Filter Set drop-down list.

### Use a saved filter set

1. Click the **Filter list** icon (top left of the page). The Filters panel opens.
2. Select the filter set from the **Filter Set** drop-down list. The filters and criteria for the set display.
3. Click **Apply**. Recordings that meet all of the criteria in the filter set display.

### Edit a saved filter set

1. Select the filter set from the **Filter Set** drop-down list.
2. Edit the filter set.
3. Click **Apply**.
4. Click the **Save** icon. The Save Filter Set dialog box opens.
5. Select **Overwrite Filter Set**. The filter set’s name appears in the Existing Filter Set drop-down list.
6. Click **Save**. The Save Filter Set dialog box closes.

### Filter descriptions

The following table describes filters and their criteria.

#### NOTE

You can use wildcards in the criteria for several filters. Combine a wildcard with at least one letter or number.

- The \* wildcard represents any number of characters. For example, if you enter 612\* as a criterion for the Phone Number filter, you filter all phone numbers that begin with 612 but contain any number of characters afterward.
- The ? wildcard represents one character. For example, if you enter 612555???? as a criterion for the Phone Number filter, you filter all phone numbers that contain ten characters and begin with 612555.

Filter	Description
Approved By	Filters contacts by the name of the person who approved their evaluations. You can use wildcards. This filter is available if you have the View Evaluator Detail permission.
Associated Call ID	Filters contacts by their associated call ID. You can use wildcards.
Calibrated	Filters contacts on their marked-for-calibration status. Select one of the following criteria: <ul style="list-style-type: none"> <li>■ Yes—The contacts have been marked for calibration.</li> <li>■ No—The contacts have not been marked for calibration.</li> </ul>
Contact Content	Filters contacts based on the types of content that they contain. Select one or more of the criteria. This filter shows you all contacts that have the content types you select, not contacts that have only these content types. <div><b>NOTE</b></div> <div> <p>One of the criteria is Has Transcription. The number of calls you see using this criterion might vary from the number of calls you see in an Analytics dashboard that uses the Transcribed Call Count data set, for a variety of reasons:</p> </div> <div> <ul style="list-style-type: none"> <li>■ QM data and Analytics data update at different times.</li> <li>■ QM marks a call with Has Transcription if a transcription file for the call is uploaded, but Analytics marks a call as transcribed after the call has been indexed. Indexing happens after the transcription file is uploaded, so reports on transcribed calls might show a higher number in QM than in Analytics if indexing has not happened yet.</li> </ul> </div>

Filter	Description
	<ul style="list-style-type: none"> <li>▪ QM and Analytics could have different retention policies.</li> </ul>
Contact ID	Filters contacts by their unique ID. You must enter the exact ID of the contact that you want to find. You cannot use wildcards.
Contact Type	Filters contacts by the contact type. Select one or more of the criteria.  “Non-Call” means that someone created the contact by clicking Create Contact on the Recordings page.
Custom Data	Filters contacts whose custom metadata meet the criteria you specify. The criteria available depend on the type of custom metadata. You cannot use a wildcard as the first or last character.
Date Evaluated	Filters contacts that were evaluated within the date range you specify. Both criteria default to the current date. This filter is available if you have the View Evaluator Detail permission.  <b>NOTE</b> If you are looking for recordings made on a specific day, you might also need to search the recordings for the previous day or the next day, depending on your time zone. To calculate the Date Evaluated, Webex WFO uses the Universal Time Coordinated (UTC) time plus or minus an offset value associated with your time zone. For example, November 6, 2019 2:00 AM UTC converts to November 5, 2019 9:00 PM Central Daylight Time (CDT). A call recorded late in the evening in the CDT time zone on November 5, 2019 might be filtered as a call that was recorded on November 6, 2019.
Date Range	Filters contacts that were recorded within a predefined date range. Select one of the criteria. The default is Past Month.  <b>NOTE</b> This filter always searches for contacts in the time zone of the capture source (for example, the Record Server or PC with Smart Desktop), even if the Display Contacts in User Time Zone check box is selected (see <a href="#">Configure QM global settings</a> ).  <b>NOTE</b> The number of calls you see when using this filter might vary from

Filter	Description
	<p>the number of calls you see when using the Date Range filter in Analytics, for a variety of reasons:</p> <ul style="list-style-type: none"> <li>▪ QM data and Analytics data update at different times.</li> <li>▪ QM and Analytics could have different retention policies.</li> </ul>
Direction	Filters contacts by their direction. Select one of the criteria.
Duration	Filters contacts whose duration is greater than, less than, or equal to the number of seconds you specify.
Email	<p>Filters email contacts by their sender, recipient, or subject. Enter values for one or more of the criteria. These criteria are not case-sensitive. You can use wildcards.</p> <p><b>NOTE</b> The Email filter is only available with Analytics installed.</p>
Evaluation Form	Filters contacts by the form with which they were evaluated.
Evaluation Response	<p>Filters contacts by the agent’s response to the evaluation. Select one or more of the following criteria:</p> <ul style="list-style-type: none"> <li>▪ Pending Response—Agent has not yet responded.</li> <li>▪ Acknowledged—Agent has acknowledged the evaluation.</li> <li>▪ Appealed—Agent has appealed the evaluation.</li> </ul>
Evaluator Name	Filters contacts by the name of the person who evaluated them. You can use wildcards. This filter is available if you have the View Evaluator Detail permission.
Line	Filters contacts by extension.
Organization	Filters contacts by the group, team, or agent who handled them.
Phone Number	<p>Filters conversations by phone number. The filter returns any contact whose calling number or called number matches the number you enter. You can enter the following:</p> <ul style="list-style-type: none"> <li>▪ Specific numbers</li> </ul>

Filter	Description
	<ul style="list-style-type: none"> <li>▪ Number ranges using wildcards</li> <li>▪ The * wildcard to return all contacts with a called number or a calling number</li> </ul> <p>The numbers cannot contain dashes or parentheses.</p>
Predictive Net Promoter Score	Filters contacts whose predictive net promoter score is greater than, less than, or equal to the number you specify. See <a href="#">Configure predictions</a> for more information about predictive scoring.
Predictive Evaluation Score	Filters contacts whose predictive evaluation score is greater than, less than, or equal to the number you specify. See <a href="#">Configure predictions</a> for more information about predictive scoring.
Recording Flags	Filters contacts that been marked or tagged. Select one or more of the criteria.  For more information about tagging contacts, see <a href="#">Tag a contact</a> and <a href="#">Mark interactions for training or HR</a> .
Recording Type	Filters contacts by recording type.
Score	Filters contacts whose evaluation score is greater than, less than, or equal to the number you specify.
Search Scope	<p>Filters contacts by scope. Select one of the following criteria:</p> <ul style="list-style-type: none"> <li>▪ All Evaluations—All contacts within your scope.</li> <li>▪ My Evaluations—All contacts that you have been assigned to evaluate or whose evaluations you have started or completed.</li> <li>▪ My Pending Calibrations—Contacts within your scope that are marked for calibration.</li> <li>▪ Root Calls—Audio root recordings. Screen root recordings are not available on the Recordings page.</li> </ul> <p><b>NOTE</b> To view root recordings, you need the View Root Recordings permission.</p>

Filter	Description
	<ul style="list-style-type: none"> <li>Recycle Bin Contacts—Contacts in the recycle bin.</li> </ul>
Sentiment	Filters contacts by their sentiment score. Select one of the criteria.
Specific Date	Filters contacts recorded within a specific date range. <p><b>NOTE</b> This filter always searches for contacts in the time zone of the capture source (for example, the Record Server or PC with Smart Desktop), even if the Display Contacts in User Time Zone check box is selected (see <a href="#">Configure QM global settings</a>).</p>
Speech Energy	Filters contacts by speech energy event. <ul style="list-style-type: none"> <li>To filter contacts by the number of an event that they contain, select Silence Events, Talk Over Events, Pause Events, or Hold Events.</li> <li>To filter contacts where the duration of an event is greater than, less than, or equal to a number of seconds you specify, select Silence Duration, Talk Over Duration, Pause Duration, or Hold Duration.</li> </ul> <p><b>NOTE</b> The Silence Events and Silence Duration criteria only return contacts that have silence event markers in the Audio panel. They do not return contacts where the audio recording is silent for other reasons (for example, because the customer is on hold or because a pause/resume event has occurred).</p> <p>For more information about speech energy events, see <a href="#">Listen to an audio interaction</a> and <a href="#">About silence and talk over events</a>.</p>
State	Filters contacts by the state of their evaluation form. Select one or more of the criteria.
Survey Name	Filters contacts by the name of their associated post-call survey.
Survey Scores	Filters contacts whose survey score is greater than, less than, or equal to the number you specify.
Time Range	Filters contacts that were captured within the specified time range, regardless of date. If the start time is greater than the end time, the filter applies to

Filter	Description
	<p>contacts over midnight.</p> <p><b>NOTE</b> This filter always searches for contacts in the time zone of the capture source (for example, the Record Server or PC with Smart Desktop), even if the Display Contacts in User Time Zone check box is selected (see <a href="#">Configure QM global settings</a>).</p>
Time Zone	<p>Filters contacts by the time zone of the capture source.</p> <p><b>NOTE</b> This filter always searches for contacts in the time zone of the capture source (for example, the Record Server or PC with Smart Desktop), even if the Display Contacts in User Time Zone check box is selected (see <a href="#">Configure QM global settings</a>).</p>

When locating a customer conversation for evaluation, consider the following information:

- An agent must be associated with a team if you want the agent's contacts to be recorded.
- An agent who is currently not on a team can search and play back their own scored recordings (and all training recordings). The cell in the Team column associated with the selected customer conversation appears blank.
- If configured to, a user can search, play back, and score contacts for an agent who is not currently in a team or group. If the agent does not belong to a team or group, the cell in the Team or Group column associated with the selected customer recording appears blank.
- If configured to, a user can search, play back, and score contacts for an agent who belongs to a team supervised by that user, when the team does not belong to a group. A team must be associated with a group for quality management purposes.
- An agent can self-evaluate a contact if the Evaluate Contact permission is enabled for the Agent role.
- Evaluation data, including evaluator name and evaluation date, time, and time zone, are only visible to users if the users are the evaluators or if the View Evaluator Detail permission is enabled.
- If configured to, an agent can acknowledge or appeal the evaluator's score for a contact. The agent has the option to make comments on an appealed evaluation score.
- If configured to, when the agent appeals an evaluation score, a notification of the appeal is sent to the evaluator and to any users who have the agent in their scope and who also have the Edit Any Evaluation permission.

## Related topics

- [Play interactions](#)
- [Delete or restore a contact](#)
- [Customize the columns on the Recordings page](#)
- [Export interactions in bulk](#)
- [Export contact metadata](#)
- [Create a contact](#)

## Customize the columns on the Recordings page

The contacts table has columns with information about each contact. You can customize which columns you see and the order they appear on the page.

## Prerequisites

- Your role and scope allow you to view contacts.
- Some columns require specific permissions. See [Column descriptions](#) for more information.
- Some columns require Webex WFO Analytics. See [Column descriptions](#) for more information.

## Page location

Recordings

## Procedures

### Show or hide columns

1. Click the **List options** icon (top right of the page) and select **Show/Hide columns** from the drop-down list. The **Show/Hide columns** window opens.
2. To show a column, click the column's name in the **Hidden columns** pane. To hide a column, click the column's name in the **Shown columns** pane.
3. Click **Apply**. The **Show/Hide columns** window closes.

## Rearrange columns

- Click and drag columns to rearrange them.

## Column descriptions

The following tables describe all the columns that you can display in the contacts table.

### Organization

Column Name	Description
Agent ACD ID	The agent's ID in the ACD.
First Name	The agent's first name.
	<p><b>NOTE</b> If the First Name, Last Name, Group, and Team fields are blank, the recording is a root call. A root call is an unreconciled contact that appears as an archive contact. The call is assigned an agent when it is reconciled (see <a href="#">About root calls and reconciliation</a>).</p>
Group Name	The name of the group.
Last Name	The agent's last name.
Team Name	The name of the team the agent belonged to at the time the contact was recorded.

### Contact

Column Name	Description
Associated Call ID	The ID of a call related to this contact.
Audio File Upload State	The status of the contact's audio file. See <a href="#">Video File Upload State / Audio File Upload State</a> .
Call Duration	<p>The length of time between the call being answered and the call ending, including ring time and extended screen time (if any) in HH:MM:SS. This information comes from the signaling service. This field applies only to calls.</p> <p>The call duration shown in the contacts table might not be the same as the duration shown in the Media Player because “event duration” (the time between events) and “recording duration” (the duration within the actual</p>

**Contact (cont'd)**

Column Name	Description
	<p>recorded file) can be different.</p> <p>These scenarios cause the call duration to be different:</p> <ul style="list-style-type: none"> <li>▪ If you use the Recording Controls API to pause, resume, or restart recording, the recording duration is shorter than the actual call duration. For example, if recording is paused for one minute, the recording duration is one minute shorter than the call duration.</li> <li>▪ If you archive or clean a call with a long ring time, the contacts table shows the event duration, and the Media Player shows the recording duration.</li> </ul>
Direction	The direction of the contact: inbound or outbound.
Calling Number	The caller ID or Automatic Number Identification (ANI) of the calling party. Displays “unknown” if the calling number is unlisted or blocked. This field applies only to calls.
Called Number	The direct inward dialing (DID) or Dialed Number Identification Service (DNIS) number of the phone that received the call. Displays “unknown” if the called number is unlisted or blocked. This field applies only to calls.
Contact ID	The conversation’s unique ID.
Contact Type	<p>Possible values for this column are:</p> <ul style="list-style-type: none"> <li>▪ Call—A contact with a call recording.</li> <li>▪ E-mail—An email contact without call recording. This contact type appears only when your organization uses both Quality Management and Analytics.</li> <li>▪ Non-Call—A contact without a call recording. A non-call contact can include email text if your organization uses Analytics. When Analytics shares the same interface, Quality Management retrieves non-call information and the text associated with it from Analytics.</li> <li>▪ Screen Only—A screen recording contact without call recording.</li> <li>▪ Text—Other text-based contacts besides email (for example, a chat).</li> </ul>

**Contact (cont'd)**

Column Name	Description
Daily Workflow	The name of the Daily Workflow associated with this contact (see <a href="#">Automate QM workflows</a> ).
End of Call Workflow	The name of the End of Call workflow associated with this contact (see <a href="#">Automate QM workflows</a> ).
From Address	(Email contacts only) The email addresses in the From field. This column is available only with Analytics.
HR	Whether the contact has been marked as an HR contact.
Reason	The reason the conversation was recorded. This reason is set in the recording rule (see <a href="#">Automate QM workflows</a> ).
Recording Type	The recording type associated with this device.
State	The state of the contact's evaluation form. Possible values for this column are: <ul style="list-style-type: none"> <li>▪ Scored—Contacts that are claimed by an evaluator, fully scored, and approved (if approval is required).</li> <li>▪ Unscored—Contacts that are currently unclaimed by an evaluator and unscored.</li> <li>▪ In Progress—Contacts that are claimed by an evaluator but are not yet completely scored.</li> <li>▪ Cannot Score—Contacts that are claimed by an evaluator but cannot be scored. Evaluations with this state are not included in reporting or performance metrics.</li> <li>▪ Needs Approval—Contacts that are claimed by an evaluator, fully scored, and awaiting approval.</li> <li>▪ Needs Cannot Score Approval—Contacts that are claimed by an evaluator, cannot be scored, and are awaiting approval for the evaluator's inability to score.</li> </ul>
Subject	(Non-call contacts only) The email addresses in the To field. This column is available only with Analytics.

**Contact (cont'd)**

Column Name	Description
Survey Name	The contact's post-call survey form.
Survey Score	The contact's completed survey score.
To Address	(Non-call contacts only) The email addresses in the To field. This column is available only with Analytics.
Training	Whether the contact has been marked as a training contact.
Video File Upload State / Audio File Upload State	<p>The status of the video or audio file. Possible values for these columns are as follows:</p> <ul style="list-style-type: none"> <li>▪ Null/blank—There is no recording for this contact.</li> <li>▪ File pending upload—Audio or video has been recorded but has not yet been uploaded.</li> <li>▪ File is uploaded—Audio or video has been uploaded and can be played back.</li> <li>▪ File is removed—Audio or video has been recorded, but the recording has been removed.</li> <li>▪ File is invalid—The recording file is invalid and cannot be played back.</li> <li>▪ File is recycled—The audio or video file is marked to be removed but is still recoverable.</li> </ul>

**Date**

Column Name	Description
Date	<p>The date on which the contact was captured.</p> <p>By default, Webex WFO displays this date in the time zone of the capture source (for example, the Record Server or the PC with Smart Desktop). If the Display Contacts in User Time Zone check box is selected on the QM Global Settings page, Webex WFO displays this date in the user's display time zone. See <a href="#">Configure QM global settings</a>.</p>
Time	The start time of the contact in HH:MM:SS.

**Date (cont'd)**

Column Name	Description
	By default, Webex WFO displays this time in the time zone of the capture source (for example, the Record Server or the PC with Smart Desktop). If the Display Contacts in User Time Zone check box is selected on the QM Global Settings page, Webex WFO displays this time in the user's display time zone. See <a href="#">Configure QM global settings</a> .
Time Zone	The time zone for the date and time fields.  By default, Webex WFO uses the time zone of the capture source (for example, the Record Server or the PC with Smart Desktop). If the Display Contacts in User Time Zone check box is selected on the QM Global Settings page, Webex WFO uses the user's display time zone. See <a href="#">Configure QM global settings</a> .

**Evaluation**

Column Name	Description
Approved By	The person who approved the evaluation. This value appears if you are the evaluator or if you have the View Evaluator Details permission.
Calibrated	Whether the contact has been marked for calibration.
Date Evaluated	The date when the contact was evaluated. This value appears if you are the evaluator or if you have the View Evaluator Details permission. If you do not have this permission, this column displays #####.
	<p><b>NOTE</b> If you are looking for recordings made on a specific day, you might also need to search the recordings for the previous day or the next day, depending on your time zone. To calculate the Date Evaluated, Webex WFO uses the Universal Time Coordinated (UTC) time plus or minus an offset value associated with your time zone. For example, November 6, 2019 2:00 AM UTC converts to November 5, 2019 9:00 PM Central Daylight Time (CDT). A call recorded late in the evening in the CDT time zone on November 5, 2019 might be filtered as a call that was recorded on November 6, 2019.</p>
Date Responded	Date the agent responded to the evaluation.

**Evaluation (cont'd)**

Column Name	Description
Evaluation Form	The evaluation or calibration form used to score the conversation.
Evaluation Response	The agent's response to the evaluation: <ul style="list-style-type: none"> <li>▪ Pending—Agent has not yet responded.</li> <li>▪ Acknowledged—Agent has acknowledged the evaluation.</li> <li>▪ Appealed—Agent has appealed the evaluation.</li> </ul>
Evaluator Name	The evaluator or calibrator. This value appears if you are the evaluator or if you have the View Evaluator Details permission.
Score	The evaluation score given to the contact. <p><b>NOTE</b> Calibration scores do not appear in this field. For calibration scores, use the <a href="#">Evaluation Calibration</a>.</p>

**Speech fields**

Column Name	Description
% Hold	The percentage of the call spent in a hold state.
% Pause	The percentage of the call spent in a pause state.
% Silence	The percentage of the call spent in a silence state (during which neither the caller nor the agent is speaking).
% Talk Over	The percentage of the call spent in a talk over state (during which both the caller and the agent are speaking).
AVG Hold	The average hold time in HH:MM:SS.
AVG Pause	The average pause time in HH:MM:SS.
AVG Silence	The average duration of silence events in HH:MM:SS.
AVG Talk Over	The average talk over time in HH:MM:SS.
Hold Events	Number of detected hold events.
MAX Hold	The duration of the longest hold event in HH:MM:SS.

**Speech fields (cont'd)**

<b>Column Name</b>	<b>Description</b>
MAX Pause	The duration of the longest pause event in HH:MM:SS.
MAX Silence	The duration of the longest silence event in HH:MM:SS.
MAX Talk Over	The duration of the longest talk over event in HH:MM:SS.
MIN Hold	The duration of the shortest hold event in HH:MM:SS.
MIN Pause	The duration of the shortest pause event in HH:MM:SS.
MIN Silence	The duration of the shortest silence event in HH:MM:SS.
MIN Talk Over	The duration of the shortest talk over event in HH:MM:SS.
Pause Events	The number of detected pause events.
Silence Events	The number of detected silence events.
Talk Over Events	The number of detected talk over events.
Total Hold Duration	The total duration of hold time in HH:MM:SS.
Total Pause Duration	The total duration of pause time in HH:MM:SS.
Total Silence Duration	The total duration of silence time in HH:MM:SS.
Total Talk Over Duration	The total duration of talk over time in HH:MM:SS.

**Analytics**

<b>Column Name</b>	<b>Description</b>
Predictive Evaluation Score	The predicted evaluation score of an unscored contact. Webex WFO bases this predicted score on Analytics data (including call and agent attributes, speech hits, and desktop activity) and previous evaluation scores.
Predictive Net Promoter Score	The predicted net promoter score for the contact.
Sentiment	The overall emotional tone of the contact. Possible values are Positive, Neutral, and Negative.

## Custom metadata

Column Name	Description
<i>Variable text</i>	The custom metadata available in Webex WFO varies by the configuration of your ACD and the Metadata Manager page. You can edit the values in custom metadata fields. See <a href="#">Edit custom metadata associated with an interaction</a> .

## Related topics

- [About root calls and reconciliation](#)
- [Automate QM workflows](#)
- [Configure QM global settings](#)
- [Edit custom metadata associated with an interaction](#)

## Delete or restore a contact

This topic explains how to delete or restore recorded contacts.

## Prerequisites

- You have a role and scope that allow you to view recordings.
- You have the View Recycle Bin and Delete Contact permissions.

## Page location

Recordings

## Procedures

### Delete a contact

This procedure moves a contact to the Recycle Bin. You can delete one contact at a time.

1. Select the contact by clicking its check box on the left side of the Recordings page.
2. Click **Delete** ( top right of the page). A confirmation dialog box opens.
3. Click **Delete**. The confirmation dialog box closes.

## Restore a contact

This procedure moves a contact from the Recycle Bin back to the Recordings page. You can restore one contact at a time.

1. Click **Filter list** ( top left of the page). The **Filters** panel opens.
2. If the **Search Scope** filter is not listed in the panel, click **Add Filter**. The **Choose Filters** window opens. (If Search Scope is listed, skip to step 5.)
3. In the **Available** column, click **Search Scope**.
4. Click **Update Filters**. The **Choose Filters** window closes.
5. Click **Search Scope** and select **Recycle Bin Contacts** from the drop-down list.
6. Click **Apply**. Contacts in the Recycle Bin display.
7. Select the contact by clicking its check box on the left side of the page.
8. Click **Restore** ( top right of the page).

## Permanently delete a contact

You can permanently delete one contact at a time.

**IMPORTANT** You cannot restore a permanently deleted contact.

1. Locate the contact in the Recycle Bin (see steps 1–6 under [Restore a contact](#) for how to access the Recycle Bin).
2. Select the contact by clicking its check box on the left side of the page.
3. Click **Permanently delete** ( top right of the page). A confirmation dialog box opens.
4. Click **Delete**. The dialog box closes.

## Related topics

- [Find interactions](#)—Learn more about filtering contacts.
- [Automate QM workflows](#)—Learn how to automatically send recordings to the Recycle Bin instead of moving them manually.

## Play interactions

### Prerequisites

- You have the View Contacts permission.
- Some panels in the Media Player require additional permissions, data, or Webex WFO features. See the topics listed in the “Related topics” section below for more information.

### Page location

Recordings > Double-click a contact

You can also open the Media Player by clicking a contact in one of these locations:

- The Agent Explorer page
- In the Details pane of an Analytics widget
- In Data Explorer

#### NOTE

If you try to open a contact that is stored in Amazon Glacier, a window opens asking you to restore the media files required to play the recording.

- To retrieve the contact, click **Restore**.
- To dismiss the window without restoring the contact, click **OK**.

### Procedures

#### Play a contact

Click **Play**.



#### Play the contact faster or slower

Select a speed from the Playback Speed drop-down.



### Zoom in on a contact

Click the Zoom In icon to see more detail in the Audio, Sentiment, Phrase Hits, and Desktop panels.



Click the Zoom Out icon to return to the original level of detail.



### View associated contacts

Click the Next and Previous icons to move to contacts related to the one currently open.



### Shrink the Media Player

Click the Compact View icon to make the Media Player smaller and reveal the Recordings page.



Click the Full View icon to return to the full-size Media Player.



### View information about the agent who handled the contact

Click **Profile Card**.



This card lists the agent's roles, group, team, skill mappings, and the following statistics:

- **Net Reputation Score**—A number that quantifies how positively or negatively the agent affected your contact center in the last 30 days. Scores range from 1.00 to -1.00, with 1.00 being the most positive and -1.00 being the most negative. Webex WFO calculates this score according to the following formula:

$$(A \div C) - (B \div C) = \text{Net Reputation Score}$$

Where

A = The number of the agent's contacts in the last 30 days with a positive sentiment score

B = The number of the agent's contacts in the last 30 days with a negative sentiment score

C = The number of the agent's contacts in the last 30 days with any sentiment score:  
positive, negative, or neutral

- **Average Predictive NPS**—The agent's average predictive net promoter score (NPS) over the past 30 days. Webex WFO calculates this average according to the following formula:

$$A \div B = \text{Average Predictive NPS}$$

Where

A = Total of all predictive NPS scores given to the agent's contacts in the last 30 days

B = The number of the agent's contacts in the last 30 days with a predictive NPS score

- **Completed Customer Interactions**—How many contacts the agent handled in the last 30 days.

**NOTE** This number might not match the number of contacts you see for the agent on the Recordings page. It includes contacts that have not been uploaded, have been recycled or deleted, and so on, which do not appear on the Recordings page.

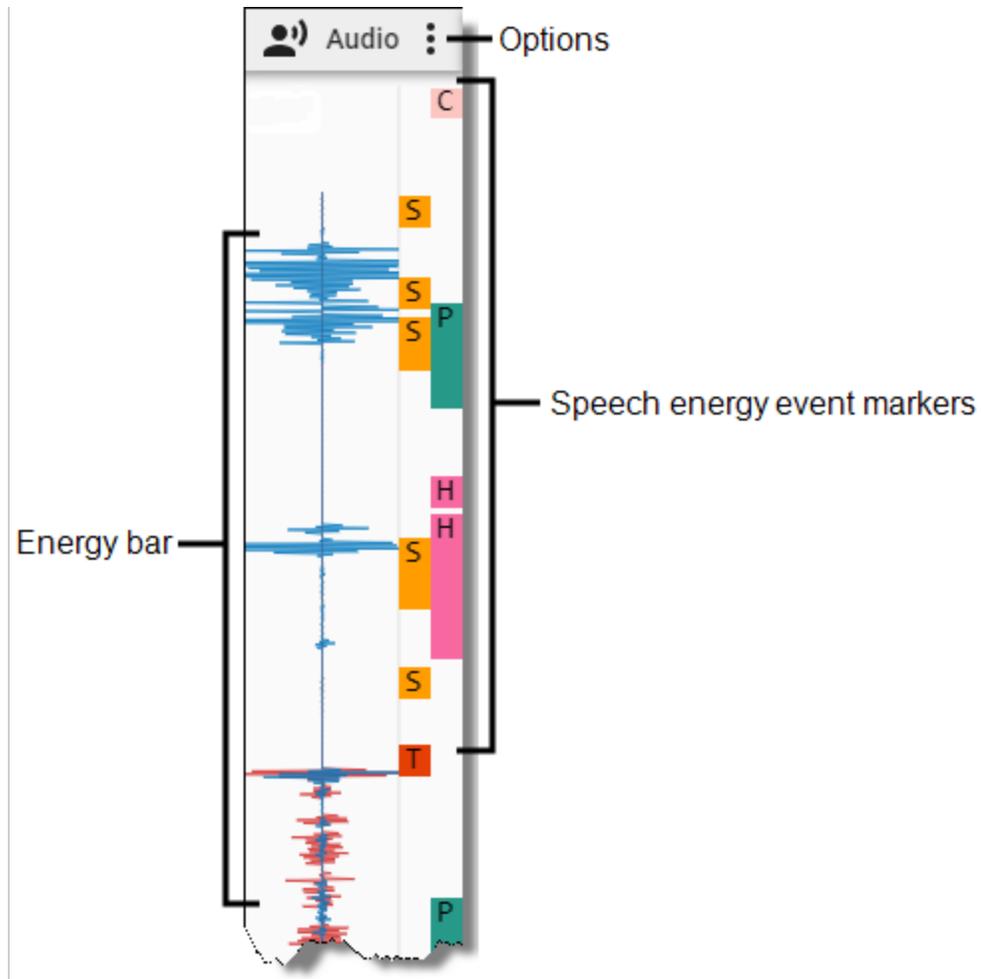
Net Reputation Score and Average Predictive NPS require the View Analytics Data for Contacts permission and advanced analytics features. Skill Mappings appear if the agent is associated with at least one skill mapping.

## Related topics

- [Listen to an audio interaction](#)
- [Watch the screen capture of an interaction](#)
- [Skip forward and back in a recording](#)
- [View agent actions for an interaction](#)
- [Explore data associated with an interaction](#)
- [Read an email interaction](#)
- [Read a text interaction](#)
- [Evaluate an interaction](#)
- [Read the transcription of an audio recording](#)
- [View phrase analytics for an interaction](#)
- [View the sentiment for an interaction](#)

### **Listen to an audio interaction**

The Audio panel in the Media Player visualizes the audio recording.



## Prerequisites

- Your organization has the QM, CR, and Webex WFO Access licenses.
- You have the View Contacts permission.
- The contact's Contact Type is "Call," and its Contact Content includes "Has Voice."

## Page location

Recordings > Double-click a contact > Audio panel

## Procedures

### View speech activity

The energy bar shows where audio activity (the agent and customer speaking) occurred throughout the contact. You can drag the timeline slider to a place where the energy interests you and listen to that portion of the audio.

**NOTE** If an agent's screen activity was recorded before a call started or after a call ended (for example, because of a Screen Recording Extension configuration), the energy bar is blank during that portion of the recording.

The color of the audio streams depends on the type of recording.

Energy Bar	Recording Type	Description
	Stereo	The inbound audio stream is blue. The outbound stream is red.
	Mono	The audio stream is red.

### View events

Speech energy event markers label where Webex WFO detects significant audio events, such as where both the agent and the customer spoke at the same time.

Click an event marker to move the timeline slider to it, or hover over an event marker to see further details.

The following table describes all event markers.

Icon	Type	Description
	Comment	Someone commented on the evaluation while playing the contact.  <b>NOTE</b> Comments left on evaluation forms that are in calibration mode do not appear as event markers.
	Hold	The agent placed the call on hold.

Icon	Type	Description
	Pause	The recording was paused because the agent did something that told Webex WFO to stop recording (see <a href="#">Configure automated desktop actions</a> ).
	Silence	Neither the agent nor the customer was speaking (see <a href="#">About silence and talk over events</a> ).
	Talk over	Both the agent and the customer were speaking at the same time (see <a href="#">About silence and talk over events</a> ).

**NOTE** Brief background noises might appear as audio energy, but Webex WFO still considers those silence.

### Filter events

Click the Options icon to select the types of events that appear.

### Related topics

- [Play interactions](#)
- [About silence and talk over events](#)—Learn more about how Webex WFO identifies silence and talk over.
- [Configure automated desktop actions](#)—Specify agent actions that tell Webex WFO to pause and resume recording.
- [Configure Quality Management](#)—Establish how long silence or talk over must happen for Webex WFO to mark it as an event.

### About silence and talk over events

A recorded call contains two streams of audio that represent the two sides of a call. In the Media Player, the Audio panel displays the inbound stream in blue and the outbound stream in red. In a normal conversation, the energy alternates between the outbound call and the inbound call.

When the inbound call and the outbound call spike simultaneously, that is a talk over event. The Audio panel displays a talk over icon in the energy bar where a talk over event occurs. When both parties are silent during a call, that is a silence event. During a silence event, the line in the energy bar is flat. The Audio panel displays a Silence icon in the energy bar where a Silence event occurs.

Normally, each stream contains the voice of a single person: either the agent or the customer. Occasionally, a stream includes multiple voices. For example, a conference call contains the agent stream where you hear the agent's voice and a second stream where you hear the voices of all other parties in the conference call.

Calls can include non-speech noises (for example, wind, typing, background conversations, or barking dogs). Webex WFO processes these noises in addition to speech when searching for silence and talk over events in a call. Brief background noises might display as audio energy, but Webex WFO still considers those silence.

Webex WFO uses a Voice Activity Detection (VAD) module to classify audio as silence or speech. VAD is designed to analyze phone calls where you expect to hear two or more people talking to each other. VAD analyzes separate blocks of audio data and calculates an average sound volume for each block. The blocks are called frames. (A frame size is measured in milliseconds of audio. VAD uses the same frame size when processing all audio in a file.) VAD uses its decision threshold to determine if each frame indicates silence or speech. If the average volume for the frame falls below the VAD decision threshold, it marks the frame as mutual silence. VAD processes each frame of each stream, compares the frames from stream 1 and stream 2, and assigns an audio type to each pair of frames. The audio types are as follows:

- Mutual Silence (MS)—Both frames are silent.
- Normal (N)—One frame contains speech, and the other frame is silent. This indicates normal conversation.
- Talk Over (TO)—Both frames contain speech.

VAD uses a heuristic algorithm that adapts based on the quality of the audio data. In a noisy environment, the VAD decision threshold rises to mark only the loudest noises as speech. Otherwise, the entire phone conversation would be marked as constant speech, even if the noise is caused by a car engine or another form of non-speech background noise. In a quiet environment where the person is not speaking loudly, the VAD decision threshold falls so that it can correctly identify speech at a low volume. This allows the entire call to be marked as normal speech instead of silence.

This adaptability allows VAD to be more accurate when detecting speech or silence, but it is not always 100% accurate. Because VAD uses average sound volume to tell the difference between speech and silence, there will always be instances where it incorrectly identifies normal speech or mutual silence in a frame of audio. When background noise levels change, VAD needs a few seconds to adapt. During this time, it might mark audio as normal speech when no one is speaking, or it might mark mutual silence when someone is speaking. During mutual silence, for example, a sudden noise like typing on the keyboard or coughing might be loud enough to cause VAD to identify a frame as talking even though no one is speaking. Essentially, VAD does not know the difference between human speech and the sound of a car engine.

It is also possible that VAD might not identify a talk over or silence event. For example, it might miss a talk over event even when two people are clearly talking to each other on a call at the same time. If one of the speakers during the talk over event pauses to think or take a breath for at least a quarter of a second, VAD could mark the frame as an instance of silence. From the speaker's perspective, they were constantly talking; you would expect VAD to indicate a talk over event. From VAD's perspective, however, there was a period of silence during the conversation, so it cannot be considered a talk over event.

On the Application Management > QM > QM Configuration > Global Settings page, you can establish the minimum duration of silence or talk over to be considered an event. For each event, Webex WFO saves the type (silence or talk over), the duration of the event in milliseconds, and the start of the event as an offset from the beginning of the audio.

### Watch the screen capture of an interaction

The Screen Capture panel provides a comprehensive view of the agent's actions throughout a contact. You can replay programs the agent opened, buttons the agent clicked, and text the agent typed.

Contact Type: Call, Screen Only

Contact Content: Has Screen

Licenses Required: QM, Webex WFO Access

Permissions Required: View Contacts

The Screen Capture panel can display recordings of both single- and multiple-monitor setups. With recordings of multiple-monitor setups, the panel displays one monitor at a time. To display a different monitor, hover over the panel and click the monitor you want.

You can display the Screen Capture panel in the Media Player or in a separate browser window.

- To open the panel in a separate browser window, click the Undock icon.
- To return the panel to the Media Player, click the Dock icon or close the browser window.

**NOTE** You cannot undock panels if you are using a pop-up blocker. To undock panels, disable your pop-up blocker.

**NOTE** Internet Explorer does not support undocking.

The screen size for screen recording playback is 1920 × 1088. If the total screen size for the screen recording is larger than 1920 × 1088, it will be reduced to appear in the Screen Capture panel. If you undock the panel and resize the browser window, the screen recording resizes accordingly. Multi-monitor recordings are at least twice the size of single-monitor recordings.

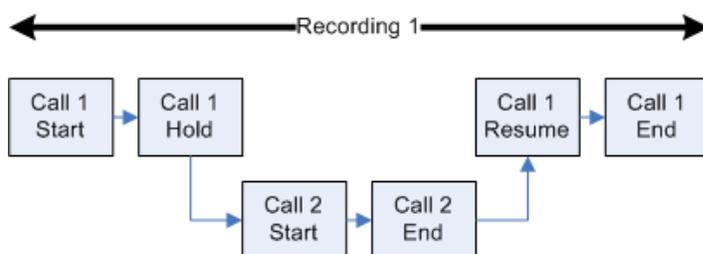
## Examples of interaction scenarios

The following topics describes how agents handle two call simultaneously, blind call transfers, and conference calls.

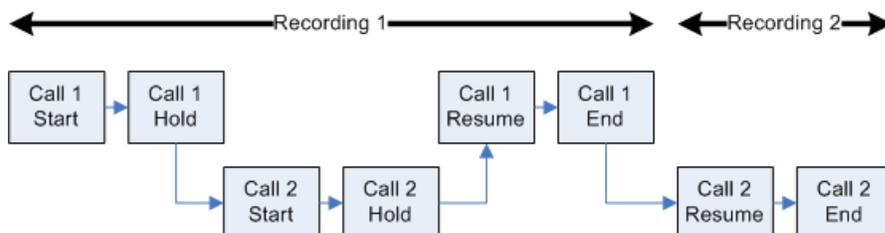
### Bracketed and interleaved call recordings

When an agent or knowledge worker handles two calls simultaneously by putting one on hold and switching between them, the result can be one or two recordings, depending on whether the calls are bracketed or interleaved.

In the following figure, Recording 1 is created for Call 1. It also contains the entire audio from Call 2. Call 2 is bracketed within Call 1.



In the following figure, Recording 1 is created for Call 1. It also contains the portion of audio from Call 2 during the time in which both calls are active. Recording 2 is created for Call 2 after Call 1 ends. Recording 2 only contains the portion of audio from Call 2 beginning after Call 1 ends. Call 1 is interleaved with Call 2. The duration reported for Call 2 is from the time that Call 2 starts until the time that Call 2 ends. However, the actual duration of Recording 2 is from the time Call 1 ends until the time Call 2 ends.



Using the Associated Contacts tab on the Media Player pane, you can play any segment of a call between the time that it enters the contact center and when it is terminated. Clicking Associated Contacts enables you to see every call segment associated with a call. See [Playing All Segments of a Call](#) for more information on associated contacts.

### Blind transfer

A blind transfer occurs in the following circumstances:

- A call is routed to a third party
- The original call is ended, and no check is made to determine whether the transferred call is answered
- The third party phone number is busy

**EXAMPLE** The recording for the first agent stops when the agent transfers the call. The recording continues when the second agent answers the transferred call. If the second agent does not answer the call, the recording ends when the first agent transfers the call.

### Conference calls

Conference calls are handled differently than solo calls in the Media Recorder. This topic describes conference calls.

#### *Supervised conference*

A supervised conference call occurs when an agent adds a third party to the call. The agent can choose to add the third party to the call without first speaking to the third party or to speak to the third party before actually completing the conference call.

**EXAMPLE** The caller is placed on hold when the first agent initiates a conference call to the second agent. While the caller is on hold, the discussion between the two agents is recorded. When the caller is added to the conference, the call continues to be recorded. The recording for the first agent stops when the agent hangs up, and the call between the second agent and the caller continues recording.

### Hold with call on second line

A hold with a call on a second line occurs when an agent places the caller on hold while talking to a third party on a second line.

**EXAMPLE** The QM8 user places the caller on hold. A flat line represents the hold in the energy bar for Contact ID 1344. While on hold, the QM8 user picks up a second line and calls QM1 user at 2471827118. The call on the second line does not appear in the associated contacts for Contact ID 1344 because it is a separate call.

### Skip forward and back in a recording

The Timeline panel allows you to control the playback of an audio or screen recording.

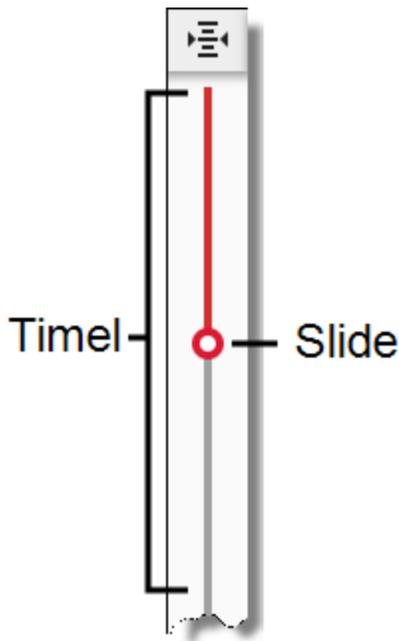
Contact Type: Call, Screen Only

Contact Content: Has Voice, Has Screen

Licenses Required: CR, QM, Webex WFO Access

Permissions: View Contacts

Drag the slider in the timeline to move forward or backward to specific points in the recording.



A red progress line in the energy bar lines up with the slider as the recording plays. This allows you to see how the recording matches the data in any of the following panels that are available to you:

- Audio
- Sentiment
- Phrase Hits
- Desktop

### View agent actions for an interaction

The Desktop panel summarizes the actions that agents took on their phones and computers. This allows you to identify and analyze decisions that affected their handling of the contact.

**NOTE** Because of the way desktop data is processed, this panel does not show information if your organization integrates with Cisco Webex Contact Center.

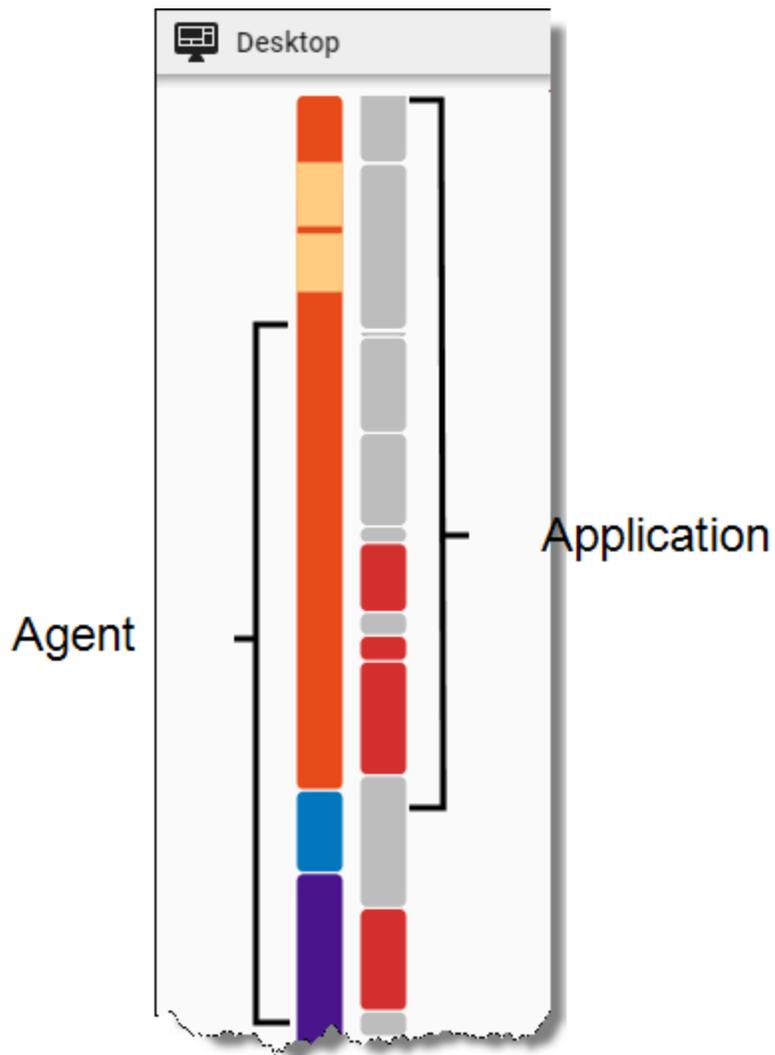
Contact Type: Call, Screen Only

Contact Content: Has Voice, Has Screen

Licenses Required: Webex WFO Access

Permissions Required: View Contacts, View Desktop Analytics

The panel contains the agent interaction bar and the application usage bar.



### Agent interaction bar

The agent interaction bar divides the contact into color-coded segments by the duration of each agent interaction. Yellow bands indicate the duration of any desktop events that occurred during each state.

You can click an event or state to move the timeline slider to it, or you can hover over an event or state to see a tooltip that contains further details.

The following table describes the colors of the segments in the agent interaction bar.

Color	State Type	Description
	Active	The agent was talking with the customer.
	On Hold	The agent put the customer on hold.
	After Call Work	The agent was disconnected from the customer, but completing work related to the contact.
	Event	The agent triggered a desktop event. Desktop events are moments where Webex WFO intervenes in a recording when an agent performs a predefined task in an application or website. For example, an administrator can configure Webex WFO to pause recording when an agent clicks a specific field (see <a href="#">Configure desktop item events</a> ).

## Application usage bar

The application usage bar divides the contact into segments by the applications and websites that the agent accessed throughout.

**NOTE** The application usage bar shows only applications and websites that were active and in focus during the contact.

You can click an application segment to move the timeline slider to it, or hover over an application to see a tooltip that contains further details. If you click the Zoom In icon on the Media Player toolbar, the panel also displays the name of each application or website.

Applications are color-coded by their approval status (see [Add a New Desktop Item](#)).

Color	Status	Description
	Approved, Ignore, or New	The agent used an application that they are allowed to, that does not yet have an approval status, or that is ignored.
	Not Approved	The agent used an application that they are not allowed to.

## Explore data associated with an interaction

The sections in the Details panel enable you to explore several categories of data associated with the contact.

Contact Type: Any

Contact Content: Any

Licenses Required: QM, CR, Webex WFO Access

Permissions Required: View Contacts

The sections available depend on your role, the contact type and contents, and the features enabled in Webex WFO.

## Associated Contacts

When multiple agents handle the same customer call (for example, when one agent transfers the call to another), Webex WFO creates a separate contact for each agent involved and gives these contacts the same associated call ID. The Associated Contacts section displays such contacts, allowing you to see all segments of a call, from when it enters the contact center to when it is terminated.

### EXAMPLE

A customer calls Agent A. Agent A transfers the customer to Agent B, and Agent B transfers the customer to Supervisor C. Webex WFO creates three separate contacts and gives them the same associated call ID.



For further examples, see [Watch the screen capture of an interaction.](#)

Webex WFO orders associated contacts chronologically and highlights the currently-loaded contact in blue.

To load an associated contact, do either of the following:

- Click the associated contact that you want to load.
- Click the Previous or Next button in the Media Player (see [Play interactions](#)).

You can also hover over an associated contact to see a tooltip that contains further details.

**NOTE** Associated contacts might not align correctly. For example, the system clock time on each PC with Smart Desktop can vary if the desktops are not syncing to the same time server. The system clock time can also vary on each PC between syncs to the same time server.

#### **NOTE**

You might not be able to play back some associated contacts. This is due to various reasons:

- They were deleted.
- They did not meet workflow criteria.
- They were under the minimum length.

With this type of contact, the energy bar associated with the contact is empty, and the recording is unavailable. You cannot listen to those segments of the call, but you can view them so you can follow how the call moved through the contact center. When you use the Next and Previous buttons to move through the list of contacts, the Media Player automatically skips contacts you cannot listen to.

**NOTE** You can only play back associated contacts that are within your scope. An error message appears for calls that are out of your scope.

## Contact Information

The Contact Information section displays contact data. The data shown depends on the type of contact. Information for calls is different than information for emails, for example.

The following tables describe all possible contact data that can appear in the Contact Information section of the Details panel. Each table orders contact data alphabetically.

**NOTE** Webex WFO lists most contact data both as fields in the Contact Information section of the Media Player's Details panel and as columns in the contacts table. However, Webex WFO lists some contact data in the contacts table only or identifies it with a different name, as noted in the following table.

## Contact

Contact Data	Description
Associated Call ID	The ID of a call associated with this contact.

**NOTE** In the Details panel, this data appears in the Associated

Contact Data	Description
	 Contacts section.
Audio File Upload State	See <a href="#">Video File Upload State / Audio File Upload State</a> .
Call Duration	<p>The length of time between the call being answered and the call being dropped, including ring time and extended screen time (if any) in HH:MM:SS. The call duration is received from the signaling service.</p> <p>The call duration shown in the contacts table and the Media Player might not be the same due to the difference in “event duration” (the time between events) and “recording duration” (the duration within the actual recorded file).</p> <p>In these scenarios, the call duration would be different:</p> <ul style="list-style-type: none"> <li>When you use the Recording Controls API to pause, resume, or restart recording, the recording duration would be shorter than the actual call duration. For example, if a recording is restarted one minute into the call, the call duration would be one minute longer than the recording duration.</li> <li>When you archive or clean a call with a long ring time, the contacts table shows the event duration in the call duration field, while the Media Player shows the recording duration in the call duration field.</li> </ul> <p>This field applies only to calls.</p>
Contact Direction Direction (contacts table)	The direction of the contact: inbound or outbound.
Calling Number	<p>The caller ID or Automatic Number Identification (ANI) of the calling party. Displays “unknown” if the calling number is unlisted or blocked.</p> <p>This field applies only to calls.</p>
Called Number	The direct inward dialing (DID) or Dialed Number Identification Service (DNIS) number of the phone that received the call. Displays “unknown” if the called number is unlisted or blocked.

Contact Data	Description
	This field applies only to calls.
Contact ID	The conversation's unique ID.
Contact Type	The contact type. The valid values for this field are: <ul style="list-style-type: none"> <li>▪ Call—A contact with a call recording.</li> <li>▪ E-mail—An email contact without call recording. This contact type appears only when both Quality Management and Analytics are enabled for your site.</li> <li>▪ Non-Call—A contact without a call recording. A non-call contact can include email text if you have Analytics enabled. When Analytics is enabled and sharing the same interface, Quality Management retrieves non-call information and the text associated with it from Analytics.</li> <li>▪ Screen Only—A screen recording contact without call recording.</li> <li>▪ Text—Other text-based contacts besides e-mail (for example, a chat).</li> </ul>
Daily Workflow	The name of the Daily Workflow associated with this contact (see <a href="#">Automate QM workflows</a> ).
End of Call Workflow	The name of the End of Call workflow associated with this contact.
From Address	(Email contacts only) The email addresses in the From field. This option is available only when Analytics is enabled.
HR	Indicates if the contact has been marked as an HR contact.
Reason	The reason the conversation was recorded. This reason is set in the recording rule (see <a href="#">Explore data associated with an interaction</a> ).
Recording Type	The recording type associated with this device.
State	The current evaluation state of the contact. The valid values in the State field are: <ul style="list-style-type: none"> <li>▪ Scored—Contacts that are claimed by an evaluator, fully scored,</li> </ul>

Contact Data	Description
	<p>and approved (if approval is required).</p> <ul style="list-style-type: none"> <li>▪ Unscored—Contacts that are unclaimed by an evaluator and unscored.</li> <li>▪ In Progress—Contacts that are claimed by an evaluator but which are not yet completely scored.</li> <li>▪ Cannot Score—Contacts that are claimed by an evaluator but cannot be scored. Evaluations with this state are not included in reporting or performance metrics.</li> <li>▪ Needs Approval—Contacts that are claimed by an evaluator, are fully scored, and are awaiting approval.</li> <li>▪ Needs Cannot Score Approval—Contacts that are claimed by an evaluator, cannot be scored, and are awaiting approval for the evaluator’s inability to score.</li> </ul>
Subject	Filters email associated with non-call contacts based on the email addresses in the To field. This option is available only when Analytics is enabled.
Survey Name	The name of a survey.
Survey Score	The score of a completed survey.
To Address	Filters email associated with non-call contacts based on the email addresses in the To field. This option is available only when Analytics is enabled.
Training	Indicates if the contact has been marked as a training contact.
Video File Upload State / Audio File Upload State	<p>The status of the video or audio file. Possible values for both these fields are as follows:</p> <ul style="list-style-type: none"> <li>▪ Null/blank—There is no recording for this contact.</li> <li>▪ File pending upload—Audio or video has been recorded but has not yet been uploaded.</li> <li>▪ File is uploaded—Audio or video has been uploaded and can be</li> </ul>

Contact Data	Description
	played back.
	<ul style="list-style-type: none"> <li>File is removed—Audio or video has been recorded, but the recording has been removed.</li> <li>File is invalid—The recording file is invalid and cannot be played back.</li> <li>File is recycled—The audio or video file is marked to be removed, but is still recoverable.</li> </ul>

## Organization

Contact Data	Description
Agent ACD ID (contacts table only)	The ID of the agent in the ACD.
First Name	The agent's first name.
	<p><b>NOTE</b> If the First Name, Last Name, Group and Team fields are blank, the recording is a root call. A root call is an unreconciled contact that appears as an QM archive contact. Once reconciled, the call is assigned a user (see <a href="#">About root calls and reconciliation</a>).</p>
Group Group Name (contacts table)	The name of the group.
Last Name	The agent's last name.
Team Team Name (contacts table)	The name of the team the agent belonged to at the time the contact was recorded.

## Evaluation

Contact Data	Description
Approved By	The name of the user who approved the evaluation. This value only appears if you are the evaluator or when the View Evaluator Details

Contact Data	Description
	permission is enabled.
Calibrated	Indicates if the contact has been marked for calibration.
Date Evaluated	<p>The date when the contact was evaluated. This value appears if you are the evaluator or when the View Evaluator Details permission is enabled. If this permission is not enabled, the value ##### is displayed.</p> <p><b>NOTE</b> The date and time used to calculate the Date Evaluated value is calculated using the Universal Time Coordinated (UTC) time plus or minus an offset value associated with your time zone. For example, 09/22/2019 2:00 AM UTC converts to 09/21/2019 9:00 PM Central Daylight Time (CDT). The Date Evaluated filter uses the UTC time of when the call is evaluated. That means, depending on your time zone, a call recorded on late in the evening in the CDT time zone on 09/21/2019 is filtered as a call that was recorded on 09/22/2019. If you search the recordings that occurred on 09/21/2019 using the Date Evaluated filter, you may also need to search the recordings for the previous or next day, depending on your time zone.</p>
Date Responded	Date the agent responded to the evaluation.
Evaluation Form	The name of the evaluation or calibration form used to score the customer conversation.
Evaluation Response	<p>Indicates the response status for the contact:</p> <ul style="list-style-type: none"> <li>▪ Pending—The agent’s response to the scored evaluation is required but has not yet been made.</li> <li>▪ Acknowledged—The agent has acknowledged the scored response.</li> <li>▪ Appealed—The agent has appealed the scored evaluation.</li> </ul>
Evaluator Name	The name of the evaluator or calibrator. This value only appears if you are the evaluator or when the View Evaluator Details permission is enabled.

Contact Data	Description
Score	The evaluation score given to the contact.
	<p><b>NOTE</b> Calibration scores do not appear in this field. For calibration scores, use the <a href="#">Evaluation Calibration</a>.</p>

## Speech, Speech Fields (Contacts Table)

Contact Data	Description
% Hold	The percentage of the call spent in a hold state.
% Pause	The percentage of the call spent in a pause state.
% Silence	The percentage of the call spent in a silence state (during which neither the caller or the agent are speaking).
% Talk Over	The percentage of the call spent in a talkover state (during which both the caller and the agent are speaking).
AVG Hold (contacts table only)	The average hold time in HH:MM:SS.
AVG Pause (contacts table only)	The average pause time in HH:MM:SS.
AVG Silence (contacts table only)	The average duration of silence event in HH:MM:SS.
AVG Talk Over (contacts table only)	The average talkover time in HH:MM:SS.
Hold Events	Number of detected hold events.
MAX Hold (contacts table only)	The duration of the longest hold event. Format = HH:MM:SS.
MAX Pause (contacts table only)	The duration of the longest pause event. Format = HH:MM:SS.
MAX Silence (contacts table only)	The duration of the longest silence event. Format = HH:MM:SS.

Contact Data	Description
MAX Talk Over (contacts table only)	The duration of the longest talkover event. Format = HH:MM:SS.
MIN Hold (contacts table only)	The duration of the shortest hold event. Format = HH:MM:SS.
MIN Pause (contacts table only)	The duration of the shortest pause event. Format = HH:MM:SS.
MIN Silence (contacts table only)	The duration of the shortest silence event. Format = HH:MM:SS.
MIN Talk Over (contacts table only)	The duration of the shortest talkover event. Format = HH:MM:SS.
Pause Events	Number of detected pause events.
Silence Events	The number of detected silence events.
Talk Over Events	The number of detected talkover events.
Total Hold Duration	The total duration of hold time. Format = HH:MM:SS.
Total Pause Duration	The total duration of pause time. Format = HH:MM:SS.
Total Silence Duration	The total duration of silence time. Format = HH:MM:SS.
Total Talk Over Duration	The total duration of talkover time. Format = HH:MM:SS.

## Analytics

Contact Data	Description
Predictive Evaluation Score	The predicted evaluation score of an unscored contact. Webex WFO bases this predicted score on Analytics data and previous evaluation scores. Webex WFO uses the following pieces of Analytics data: call and agent attributes, speech hits, and desktop activity.
Predictive Net Promoter Score	The predictive net promoter score for the contact.
Sentiment	The sentiment score for the contact. Possible values are Positive, Neutral, and Negative.

## Metadata, Custom Metadata (Contacts Table)

Contact Data	Description
<i>Variable text</i>	The custom metadata available in Webex WFO varies by the configuration of your ACD and the Metadata Manager page. You can edit the values in custom metadata fields. See <a href="#">Edit custom metadata associated with an interaction</a> .

### Post-Call Survey

The Post-Call Survey section displays the results of a survey completed by the customer after the contact ends. Post-call survey data appears only when your system is configured to deliver surveys and the customer has submitted a response.

### Edit custom metadata associated with an interaction

If there is custom metadata associated with the contact, you can edit that metadata unless it is encrypted. In that case, the custom metadata fields are disabled.

Maximum character length varies by type.

Metadata Type	Maximum Character Length
Data	2056 characters
Date	Based on the standard date format
Hyperlink	2056 characters
Number	—

### Edit the custom metadata associated with a contact

1. Click the contact whose metadata you want to edit. The Media Player opens.
2. In the Contact Information section of the Details panel, click the **Metadata** category. The Metadata category opens.
3. Enter the desired values in the metadata fields.
4. Click **Save Metadata**.

### **Read an email interaction**

In the Email panel, you can review the emails that your agents received from customers.

Contact Type: Email

Contact Content: N/A

Licenses Required: QM, CR, Webex WFO Access. Sentiment analysis requires Text Analytics.

Permissions Required: View Contacts

Contacts displayed in this panel have a contact type of email. Phrase hits from Text Analytics tasks are highlighted in yellow.

### **Read a text interaction**

In the Text panel, you can review text-based contacts that your agents handled.

Contact Type: Text

Contact Content: N/A

Licenses Required: CR, QM, Webex WFO Access. Sentiment analysis requires Text Analytics.

Permissions Required: View Contacts

Contacts displayed in this panel have a contact type of text. Phrase hits from Text Analytics tasks are highlighted in yellow.

### **Read the transcription of an audio recording**

In the Transcription panel, you can review the transcription of an audio recording.

Contact Type: Call

Contact Content: Has Transcription

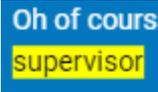
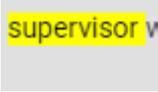
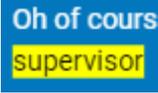
Licenses Required: Webex WFO Access

Permissions Required: View Contacts, View Speech to Text Analytics

The panel displays this transcription as text bubbles. When you play back a recording, Webex WFO highlights the text bubble of the current speaker. You can click a specific text bubble to skip to it. You can also click the Options icon to take the following actions:

- Find—Search the transcription.
- Print—Print the transcription.

Phrase hits from Speech-to-Text Analytics tasks are highlighted in yellow. The color and position of the text bubbles vary based on the type of recording.

Color	Recording Type	Description
 	Stereo	Text bubbles for the inbound audio stream are blue and right-aligned, and text bubbles for the outbound stream are gray and left-aligned.
	Mono	Text bubbles for the audio stream are blue and left-aligned.

If you have advanced analytics features installed, the text bubbles also include icons that represent any associated negative or positive sentiment scores.

### Search for words in transcribed audio

Mine data in your transcribed calls using the Transcription Search page. Locate phrases and specific terms in calls by creating search queries and filtering the results.

You make Webex WFO transcription search queries by combining terms and operators to locate results. From this page you can create a variety of searches comprised of terms, operators, and filters to locate hits within a list of calls that match the query and filters. Proximity searches look for terms within a transcript that are within a specified number of words to another term. See [Examples](#) for examples of how to use this feature.

**NOTE** Terms are one or more words. You must enclose terms comprised of multiple words in quotation marks.

### Prerequisites

- You have transcribed calls to search.
- Calls were transcribed with Webex WFO version 11.0 or newer.
- You have the View Speech to Text Analytics permission.

## Page location

Analytics > Transcription Search

## Procedures

Use the **Query Syntax** panel and the **Filters** section of the Transcription Search page to perform a transcription search as well as create, name, and save a transcription search. The following procedures describe how to initiate a transcription search.

### Perform a simple transcription search

1. Enter a term or phrase to search in the **Query Syntax** field.

You can enter a single word, multiple words, and words combined with Boolean operators to perform a search.

**NOTE** For more information about query syntax for standard queries and regular expression queries, see [About Transcription Search syntax](#).

2. From the **Filters** section, configure any combination of filters to narrow the search results.
  - Select an exiting date range or create a custom date range from the **Date** drop-down menu. This filter enables you select the time period that you want to the search to cover. You can choose to search data that was stored starting today, yesterday, or the past week, month, or year.
    - **Custom Date Range** — Enter the start date and end dates for the search to run within.
    - **In the past month** — Searches the past 30 days from the current date.
    - **In the past week** — Searches the past seven days from the current date.
    - **In the past year** — Searches the past 365 days from the current date.
    - **Today** — Searches the current day starting from 00:01 AM.
    - **Yesterday** — Searches the past 24 hours from the time the search is started.
  - Choose a call time from the **Call Start Time** field.
    - **After** — The search begins after the time you specify based on the selected **Date** and chosen **Call Start Time**.
    - **All** — The search covers all stored records.

- **Before** — The search begins before the time you specify based on the selected **Date** and chosen **Call Start Time**.
- **Between** — The search occurs between two specific times that you set.
- Choose a search duration in seconds.
  - **All** — There is no set duration for the search. The search covers all stored records based on the selected **Date** and **Duration**.
  - **Between** — The search occurs for a specified duration of time that you set.
  - **Greater than** — The search begins after a specified duration of time in seconds.
  - **Less than** — The search extends to a specified amount of time in seconds.
- Select the organization group to search from the **Groups** window. You can select one or more organizations to include within the search criteria.
- Select the organization team or teams to include within the search criteria from the **Team** window.
- Select the agent or agents whose recordings are searched from the **Agent** window.

**NOTE** The Transcription Search tool enables you to search across groups, teams, and agents, including any that are inactive.

3. Click **Search**. The results appear in the **Results** field on the right pane. If you click **Search** without configuring any filters, the search uses default filter values. All searches are performed based on the date filter.

**NOTE** **Clear All** clears the **Saved Searches** field, the **Query Syntax** field, and all configured filters.

### Create, name, and save a new search using the Query Syntax field.

Use this field to save the search criteria and filter settings that were used to perform a search.

1. Enter a term or phrase to search in the **Query Syntax** field.
2. From the **Filters** section, configure any combination of filters to narrow the search results.
3. Click **Search**. The results are listed in the **Results** field on the right pane. If you click **Search** without configuring any filters, the search uses default filter values. All searches are performed based on the date filter.
4. Click the disk icon next to the **Saved Searches** field.

5. Click the **Create Filter Set** option and then enter a unique title in the **Name** field. The name can be up to 99 characters long.
6. Click **Save**.

### Select a saved search from the Saved Search field

1. If you have saved searches, you can select a saved search from the **Saved Search** drop-down list.
  - To select a saved search, you can begin typing in the **Saved Search** field to prompt for an existing saved search, or you can click the drop-down icon and select an existing search. The **Query Syntax** field populates with the saved query and all configured filter values.
  - To delete a saved search, click **Manage Saved Searches**. The **Managed Saved Searches** pop-up appears and enables you to delete a saved search.
2. From the **Filters** section, configure any combination of filters to narrow the search results.
3. Click **Search**. The results are listed in the **Results** field on the right pane. If you click **Search** without configuring any filters, the search uses default filter values. All searches are performed based on the date filter.

### Advice

The results of a transcription search query appear in the Transcription Search Results page. The total number of search results appear at the top of the Results page. The hits are listed in order of confidence with the highest ranked segment displayed at the top of the list. Each row that appears is a segment of a transcript, and the word hits that match the search criteria are highlighted in yellow. The following list provides guidance on how you can improve your search results.

- Click **details** for a specific row to see the Transcript Preview along with additional information about the contact and the agent in the window that displays. The **Contact** field displays the unique contact ID, the duration of the call, and the date of the call. This field also displays the local start time of the call within the agent's time zone. You should always use the audio local call start time. The **Organization** field displays the first and last name of the agent, as well as the team and group that the agent is assigned to.
- Click a **Contact ID** to open the Media Player in a new tab with that contact loaded.
- Execute a search before saving it to ensure you receive the expected results.
- Each search filters contacts by their unique contact ID of a call.

- You can see up to 1000 search results within the **Results** page. If there are more than 1000 results, the page shows “1000+”.
- You can export up to 5000 search results using the CSV export tool. Click **Export** on the top right of the page to export your search results.
- A multiple-term search within quotation marks such as “cancel my subscription” uses AND logic, and the terms must appear in the same order. A multiple-term search without quotation marks uses OR logic, and the order of the terms does not matter.
- Transcription searches do not use the following words in a search. In addition, these words are not highlighted in the search results:  
a, an, and, are, as, at, be, but, by, for, if, in, into, is, it, no, not, of, on, or, such, that, the, their, then, there, these, they, this, to, was, will, with
- Filters contacts whose duration is greater than, less than, or equal to the specified number of seconds.
- Yellow highlighting of search results does not mark the correct word or words.  
Highlighting of search results may not work properly for transcriptions that were indexed prior to the version 11 release, where you may notice that incorrect words are highlighted. To correct this issue, you must index the transcribe audio recording again. Perform the following procedure to re-index an audio file that was transcribed prior to version 11.0.
  1. Open the Task Manager page under Application Management > Analytics.
  2. Click **Create Task** in the top right corner of the page.
  3. Enter a task name in the **Task Name** field.
  4. Select **Speech to Text** from the **TYPE** drop-down.
  5. Perform the following from the **Time** field:
    - a. Make sure the **Ongoing** check box is not checked.
    - b. Enter a START TIME.
    - c. Choose a TASK START DATE.
    - d. Enter a RANGE START DATE and a RANGE END DATE that spans the audio files to be processed again.

**NOTE** Do not extend the time to a time before the date the tenant started the transcription service.
  6. Select **Groups** or **Teams** for the audio files to be transcribed.
  7. Do not select any phrase category in **Phrase Categories** field.  
When the “Speech-to-Text” task completes, all transcripts should highlight correctly.

## Examples

The following sections contain search examples that demonstrate the type of queries you can enter in the **Query Syntax** field.

**EXAMPLE** Simple word search: `supervisor`

The result produces a list of all transcriptions that contain the word “supervisor” or “supervisors.”

**EXAMPLE** Multiple-word search: `supervisor speak`

This search consists of two or more terms with no operator between them and no quotation marks. The search performs as though an OR operator is present. The result is a list of transcriptions that contain the word “supervisor,” the word “speak,” or both of the words in no particular order.

**EXAMPLE** Multiple-word search using the term: `“cancel my subscription”`

This search consists of two or more words in quotation marks with no operator between them. This search performs as though an AND operator is present. The result is a list of transcriptions that contain the words “cancel my subscription” in that exact order.

12389	just <b>cancel my subscription</b> . I'm tired of it. Oh, okay, perhaps I can get my supervisor to	05/03/2019	00:02:54
12354	. I want to speak with you can you know what just <b>cancel my subscription</b> . Phone now	04/30/2019	00:04:19

**EXAMPLE** Search using the “?” wild-card character: `te$t`

The question mark (?) wild-card character searches for a single character replacement. This search finds instances of “test” and “text.”

<a href="#">12240</a>	for you but I had this your account to give it a <b>test</b> message. Okay, that sounds like a good	04/25/2019	00:03:19
<a href="#">12235</a>	to that it is not showing the right usually just log in and there's a <b>tent</b> you can monitor. It's n	04/24/2019	04:00:02

**EXAMPLE** Search using the “\*” wild-card character: `test*`

The asterisk (\*) wild-card character searches for multiple characters. This search finds instances of “test,” “tests,” “tested,” “tester,” and “testing.”

12395	to help you get your CMS can figure. So that you can do <b>testing</b> is that correct. Yes, man here...	05/16/2019	01:00:28
12387	for you but I had this your account to give it a <b>test</b> message. Okay, that sounds like a good deal..	05/03/2019	00:03:19

### EXAMPLE Proximity search: “speak supervisor”~2

This proximity search looks for the words “speak” and “supervisor” within a maximum of two words. This example shows a positive transcription result that identifies the two searched word, two words apart.

Contact...	Transcript Preview	Date ...	Duration
<a href="#">12389</a>	this is ridiculous. I want to <b>speak</b> with your <b>supervisor</b> I don't think that would be necessary	05/03/201	00:02:54
<a href="#">12354</a>	not going to pay them. It is ridiculous. I want to <b>speak</b> with a <b>supervisor</b> . Of Chris it's necessary	04/30/201	00:04:19

**BEST PRACTICE** When writing a proximity search query, enter the search terms in the order you expect to find them in the transcript. If you’re looking for phrases like “speak with your supervisor” and “speak to a supervisor,” write the query as “speak supervisor”, not “supervisor speak”. Proximity searches with randomly ordered search terms might give you unpredictable results.

**BEST PRACTICE** Limit your proximity searches to a distance of two words. Proximity searches of ~3 or greater might give you unpredictable results.

### EXAMPLE Excluding words within a search using NOT logic: (cancel || renew)!subscription

This search looks for transcripts with the word “cancel” or the word “renew” but without the word “subscription.”

**NOTE** You cannot start a query with the ! (NOT) operator. The ! operator must follow a term in the query.

To demonstrate this search, the following image shows the results of a search query that includes the word “subscription” by using AND logic (&&) instead of NOT logic, (cancel || renew) && subscription.

Contact...	Transcript Preview	Date of ...	Duration
12388	for calling. My name is Savanna, how may help you today. Hi, I'm calling to <b>renew</b> my <b>subscript</b>	05/03/2019	00:03:42
12389	just <b>cancel</b> my <b>subscription</b> . I'm tired of it. Oh, okay, perhaps I can get my supervisor to speak.	05/03/2019	00:02:54

By changing the AND logic back to NOT logic, `(cancel || renew)!subscription`, the search results show only segments that have the word “cancel,” “renew,” or both in the transcript, and the word “subscription” is not in the Transcript Preview results.

Contact...	Transcript Preview	Date of ...	Duration
12395	and it just gonna be able to copy and I mean do I <b>cancel</b> on this account. Oh, okay. See if I can.	05/16/2019	01:00:28
12333	a great day. Pollute their cells more you <b>canceled</b> and there and he wasn't in the country gets ar	04/30/2019	00:22:09
12332	our membership <b>renewed</b> . ...On the delivery which case I think you want. Sorry of them. I would	04/30/2019	00:01:51

## Related topics

- [About Transcription Search syntax](#)

### About Transcription Search syntax

The Transcription Search page supports a standard syntax in its search query. Queries are broken up into terms and operators. Terms can be a single word (hello) or a multiple terms (“hello world”) enclosed in double quotes. You can combine multiple terms with operators to form complex queries. The following table defines each of the supported operators and provides short examples of how to use the operators to form a search query.

Operator	Definition	Sample Query	Query Explanation
~	Use this proximity operator to find words or phrases within a specific number of words. No space before or after this operator. AND logic is applied to all words within the quotation marks of a proximity search.	“speak supervisor”~2	The words “speak” and “supervisor” are searched within two words of each other, with “speak” before “supervisor.” The number two indicates the maximum number of words that can appear between “speak” and “supervisor.”
&&	Operates like a Boolean AND logic operator. Add a space before and after.	“cancel subscription”~2 && “renew subscription”~2	This query searches for occurrences of the words “cancel” and “subscription” within two words of each other, that are found along with occurrences of the words “renew”

Operator	Definition	Sample Query	Query Explanation
			and “subscription” within two words of each other.
	Operates like a Boolean OR logic operator. Use a space before and after. The OR logic is the default logic used when searching for two independent words.	<p>speak supervisor</p> <p>“cancel subscription”~2   </p> <p>“renew subscription”~2</p>	<p>The first example searches for either or both of the words “speak” or “supervisor.”</p> <p>The second example searches for occurrences of the words “cancel” and “subscription” within two words, or occurrences of the words “renew” and “subscription” within two words, or both word pairings.</p>
!	Operates like a Boolean NOT operator (performs a negative search). Do not add space before or after this operator. You cannot use this operator and accompanying term or phrase by itself. You must combine this operator with a positive search, where specific terms or phrases are located. The accompanying word that you enter becomes a stem word, and other variations of the word are detected.	<p>(upgrade OR renew)!free</p> <p>hello!“thank call”~2</p>	<p>The search produces a positive result each time the word “upgrade” or “renew” is detected without the word “free” anywhere in the transcript.</p> <p>The second example shows a search for the word “hello” with no occurrence of “thank” and “call” within two words of each other.</p>
()	The parenthesis are used for grouping or nesting words.	<p>(premium    gold)</p> <p>&amp;&amp; (upgrade    renew)</p>	<p>The search is looking for any of the following combinations of two words:</p> <ul style="list-style-type: none"> <li>■ premium upgrade</li> <li>■ premium renew</li> </ul>

Operator	Definition	Sample Query	Query Explanation
			<ul style="list-style-type: none"> <li>gold upgrade</li> <li>gold renew</li> </ul>

## Wildcards

You can modify query terms with single and multiple character wildcards within single terms (but not within phrases).

? (single character)	TE?T finds TEST and TEXT
* (multiple character)	TEST* finds TESTS, TESTER, TESTING, and TEST

**IMPORTANT** Wildcards might give you unexpected results if you put them into words that have suffixes. For example, “tests,” “tester,” and “testing” all add different suffixes to the same root: “test.” A search for “te\*ting” might not find all occurrences of the words “texting” and “testing.” If you get unexpected results with wildcards, try removing the suffix and using just the root word instead.

**NOTE** You cannot use either wildcard symbol as the first character of a search.

## View phrase analytics for an interaction

The Phrase Hits panel shows where in the contact the customer or agent mentions words or phrases that matter to your contact center. These words or phrases are found by Analytics tasks, and they are called “phrase hits.”

**NOTE** Phrase hits are also highlighted in yellow in the transcription, if there is one.

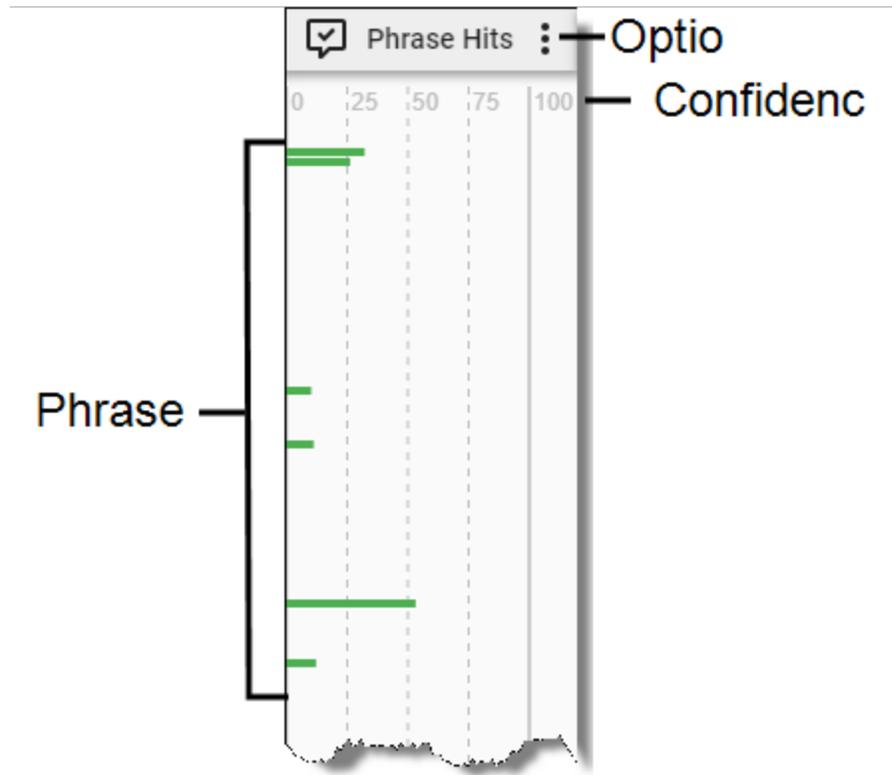
Contact Type: Call

Contact Content: Has Transcription

Licenses Required: Webex WFO Access

Permissions Required: View Contacts, View Speech Analytics

Webex WFO assigns a confidence level to each phrase hit. This confidence level shows, on a scale 0–100, how certain Webex WFO is the task accurately detected the phrase. Phrase hits with higher confidence levels appear longer than phrase hits with lower confidence levels.



You can click a phrase hit to move the Timeline slider to it, or you can hover over a phrase hit to see a tooltip that contains further details. If you click the Zoom In icon on the Media Player toolbar, each phrase hit displays the word or phrase that Webex WFO detected.

Use the Options icon to select which categories of phrase hits appear.

### Detecting phrase hits

Phrases are configured and categorized on the Phrase Manager page (see [Create and manage phrases and phrase categories \(early access\)](#)), and they are searched for by tasks scheduled on the Task Manager page (see [Create Analytics tasks](#)).

Each phrase has a text value. It can also have a phonetic value, if one is configured.

- Speech-to-Text tasks transcribe audio recordings and search the resulting transcription for text values.
- Phonetics Analytics tasks search audio recordings for phonetic values.

The results of both tasks appear in the Phrase Hits panel.

**NOTE** The panel does not show hits whose confidence level is lower than the minimum confidence level assigned to the phrase during configuration. For example, if you assigned a confidence level of 20 to the phrase “bad customer service,” the panel displays phrase hits for “bad customer service” only where the confidence level is 20 or greater.

Each phrase hit starts two seconds before the phrase hit and ends two seconds after it. The confidence level is based on probability, so the exact hit might not line up exactly with the highlighted area. Webex WFO can resolve multiple phrase hits. If two similar phrases are detected within 200 milliseconds of each other, the phrase hit with the highest confidence level becomes the primary hit and all other hits become secondary hits, and they are indexed differently.

The tooltip’s header contains the phrase that the task detected. The following table describes the tooltip’s other fields.

Field	Description
Category	The category to which the phrase belongs, as assigned on the Phrase Manager page.
Source	The type of Analytics task that detected the phrase hit. The possible values are as follows: <ul style="list-style-type: none"> <li>Phonetics—The phrase was found in an audio recording.</li> <li>Speech-to-Text—The phrase was found in the transcription of an audio recording.</li> </ul>
Start	The offset from the beginning of the audio to the moment the phrase was found. The format is HH:MM:SS.
Duration	The duration of the phrase. The format is HH:MM:SS. <p><b>NOTE</b> This field does not display values in milliseconds. If the duration is less than one second, the field displays 00:00:00.</p>
Confidence	The confidence level of the phrase hit.
Channel	The audio stream where the phrase hit was detected. For stereo recordings, the following values are possible:

Field	Description
	<ul style="list-style-type: none"> <li>▪ 1—The outbound stream.</li> <li>▪ 2—The inbound stream.</li> </ul>

### View the sentiment for an interaction

Sentiment is the overall emotional tone (positive, negative, or neutral) of the agent's and customer's conversation throughout the contact. Webex WFO supports sentiment analysis for English calls, emails, and text contacts. For calls, sentiment requires speech-to-text transcription. For emails and text contacts, sentiment requires text analytics.

Contact Type: Call

Contact Content: Has Transcription

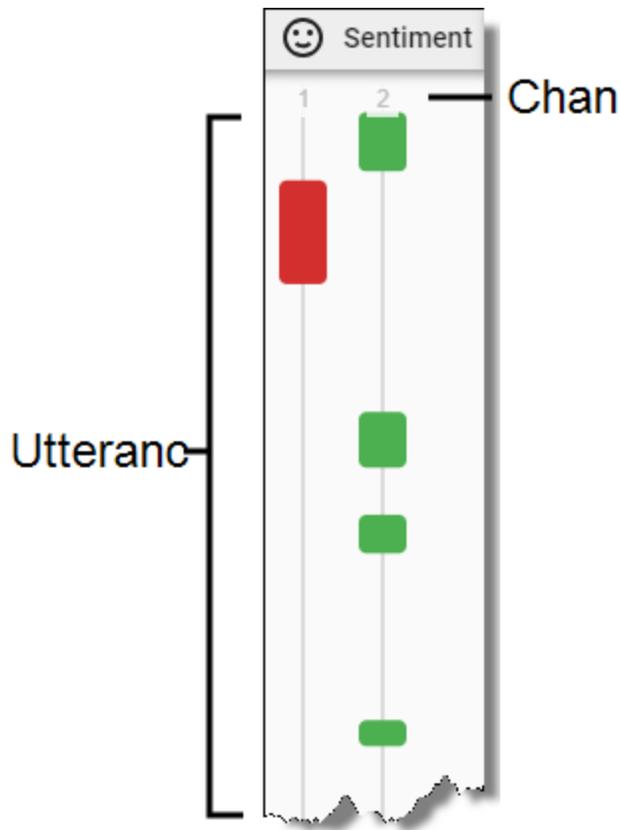
Licenses Required: Webex WFO Access (Applied Analytics features must be installed)

Permissions Required: View Contacts, View Speech to Text Analytics

### Sentiment for calls

The Sentiment panel shows sentiment for calls. The panel shows utterances that have a positive or a negative sentiment score as color-coded segments in the audio stream where they were spoken.

**NOTE** An utterance is [“a natural unit of speech bounded by breaths or pauses.”](#)



Click an utterance to move the timeline slider to it. When you do this, Webex WFO highlights the text bubble in the transcription that the sentiment task analyzed to produce the positive or negative score. The text bubble contains an icon that also indicates the sentiment score (see the table below). Hover over an utterance to see a preview of this text.

### Utterance and channel descriptions

The following table describes the colors of utterance segments and their associated icons.

**NOTE** The Sentiment panel does not display utterances that have a neutral sentiment score.

Color	Description
	Details      The utterance has a positive sentiment score.
	Text Bubble Icon 

Color	Description	
	Details	The utterance has a negative sentiment score.
	Text Bubble Icon	

The streams available depend on the recording type.

Recording Type	Description
Stereo	Utterances are divided by the following audio streams: <ul style="list-style-type: none"> <li>▪ 1—The utterance occurs on the inbound audio stream.</li> <li>▪ 2—The utterance occurs on the outbound audio stream.</li> </ul>
Mono	The only audio stream is 1. All inbound and outbound utterances occur on that stream.

### Sentiment for emails and text contacts

Written contacts have an overall sentiment score in the Analytics section of the Details panel.

### Download interactions on demand

Some call contact data (audio and/or screen recordings) might be initially unavailable when you double-click to play back a call due to the data storage state.

If any or all of a call recording is unavailable, you are prompted to choose whether to play the portion that is immediately available or to download the portion that is unavailable. A dialog box containing information about Audio Storage and Screen Storage indicates the state of each component:

- N/A—There is no audio or screen data associated with this contact.
- Cold Storage—The data is in cold storage. There might be a delay for retrieving the data.
- Immediate Storage—The data is available for immediate playback.

If you choose to download the portions that are unavailable, you are notified when the recording is available.

## Assign and share interactions

Assigning and sharing interactions entails the following:

- Review recordings assigned to you.
- Create a uniform resource locator (URL) for a recording and send it as a hyperlink to others through a chat message or email.
- Export the media files associated with a contact.
- Export multiple contacts to an external storage location.

## Access interactions assigned to you

The Contact Queue displays any contacts that have been assigned to you for calibration, evaluation, or review. Your contact goal tasks and ad-hoc tasks appear here.

These are the types of tasks you can be assigned:

- Evaluation—Evaluate a contact for quality.
- Calibration—Complete a calibration evaluation. Your submission is compared with other evaluators' submissions to ensure consistency among evaluators.
- Review—Review a recording. You must play back a recording or part of a recording as determined by the person who created the task.

The list of tasks in your contact queue contains the same columns as the contact table on the Recordings page (see [Find interactions](#)) plus the following fields:

Field	Description
Action	The type of task assigned to you
Ad Hoc Task ID	The ID of the ad hoc task for this contact
Due Date	The date by which this task must be completed and submitted
Task Name	The name of the task or contact goal
Instructions	Any specific instructions for the task provided by the administrator

## Contact Queue tasks

Webex WFO assigns contact goal tasks to you automatically. An administrator manually assigns you ad hoc tasks. You are required to complete each task by the indicated due date.

- Contact goal tasks—If your administrator has defined one or more contact goals for you, you are automatically assigned a number of contacts for calibration, evaluation, or review to be completed

each day, week, or month. You can also be assigned a contact goal for a specific date. The Contact Queue displays one contact at a time for each goal you have been assigned. Once you complete and submit a contact queue task, you are assigned another contact until all tasks for that contact goal have been submitted.

- Ad-hoc tasks—Your Contact Queue contains specific contacts that have been individually assigned to you by an administrator.

**NOTE** Contacts must be less than a year old for them to appear in your contact queue. If an administrator assigns you an ad-hoc task for contacts more than a year old, they will not appear in your queue.

Contact review tasks are automatically marked as complete when you have played back the indicated portion of the recording. For information about completing and submitting evaluations and calibrations, see [Evaluate interactions](#).

## Mark interactions for training or HR

By default, an administrator can set a permission for specific roles to mark contacts for training and HR. For example, a user whose role is assigned the Mark for Training permission can mark a contact to serve as a training example for those in the user's scope. In addition, a user such as an evaluator, supervisor, manager or even a tenant, whose role is assigned the Mark for HR permission can mark a contact for Human Resources (HR). HR can then review the contact. And a user whose role has the View All Training Contacts or the View All HR Contacts permission can view all contacts marked for training or HR in the Recordings page, respectively.

By default, any contact that is marked for training or HR is kept for six months unless otherwise specified by the administrator.

**NOTE** By default, any role within the user's scope can view contacts marked for training or HR.

When you mark an unscored evaluation for training or HR, the evaluation is saved and claimed for you.

**NOTE** To find training or HR contacts, you must first add the Recording Flags filter to your filter set and then select the Training check box or the HR check box. Unless a filter set includes this filter criteria, the filter results only return contacts marked for training or HR if the contact is in the user's scope. See [Filter interactions](#) for information on how to add Recording Flag filters.

## Tag a contact

The Webex WFO administrator controls how long contacts are available on the Recordings page. However, if you want to keep a contact for longer than your organization's standard retention period, you can tag it. Tagging a contact applies a new retention time to that recording. Depending on how your organization uses tagging, Webex WFO retains tagged contacts for a longer or shorter time than non-tagged contacts (see [Manage data retention policies](#)).

**NOTE** Tagging a contact overrides some QM workflow rules. If you apply a tag before a QM workflow runs, then Webex WFO keeps that contact and all of its associated media such as audio and screen recordings, regardless of the workflow's retention policies. If you apply a tag after a QM workflow runs, then that tag only affects the audio of that contact, not the screen recording. This means the QM workflow policy applies to the screen recording for that contact, but tagging overrides the workflow policy for the audio. If Webex WFO has recycled the audio recording because a QM workflow has run, that audio is restored. See [Automate QM workflows](#) or the *QM Workflows Quick Start Guide* for more information about QM workflows.

## Prerequisites

- You have the Tag Contact permission and/or the Untag Contact permission.
- Your role and scope allow you to view recordings.

## Page location

Recordings

## Procedures

### Tag a contact

1. Select the contact (don't open it).
2. Click **Tag Contact** ( upper right of the page). The icon changes to the Untag Contact icon.

### Untag a contact

Untagging a contact applies your organization's standard retention period to the contact.

1. Select the contact (don't open it).
2. Click **Untag Contact** ( upper right of the page). The icon changes to the Tag Contact icon.

## Related topics

- [Manage data retention policies](#)—Establish your organization’s retention periods for tagged and untagged contacts.
- [Automate QM workflows](#)—Create rules for Webex WFO to automatically manage recordings.

## Create hyperlinks to recordings

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You can create a uniform resource locator (URL) for a recording and send it as a hyperlink to others through a chat message or email. The link points the recipient’s browser to Recordings once the recipient is authenticated through the Webex WFO Login page. Once the recipient is authenticated, the recording is opened in the Media Player.

The basic URL format is as follows:

```
http://<web server>/index.html#/recordings/<contactID>
```

or

```
https://<web server>/index.html#/recordings/<contactID>
```

where:

<web server> is the host name or IP address of the server that hosts Webex WFO

<contactID> is the Contact ID for the recording.

**NOTE** URLs have `/ccr` after the ID for all recordings except root recordings. A root recording is an administrator view for tenants that use gateway recording only. A URL without `/ccr` at the end redirects to one with `/ccr` at the end.

## Export an interaction

You can download a contact to play it outside of the Webex WFO media player. Webex WFO exports recordings in WebM format. These recordings might play automatically on your device, or you might need to download an open-source media player like VLC Media Player (available from videolan.com).

## Page location

Recordings

## Prerequisites

- You have the Export Recordings permission.
- You are subscribed to the Recording Export notification.
- Your device can play WebM files.

## Procedures

### Export a recording

1. Select a recording.
2. Click **Export Contact** . The **Export Contact** window opens.
3. Select the format to export the media files.
4. Click **Export**.
5. Click **OK**. You receive a notification when the contact export has finished.

**NOTE** The time needed to export a contact depends on the length of the recording and whether it includes a screen recording.

6. Open the Alerts list (the bell icon) at the top of your window and select the **Export of Contact <ID> is ready for download** notification. The **Alert Notification** window opens.
7. Follow the prompts to download the recording.

## Related topics

- [Manage roles and permissions for QM and Analytics](#)—More information about permissions.
- [Configure notifications](#)—More information about notifications.

### Export interactions in bulk

Export multiple contacts to an external storage location using Bulk Contact Export. After a license is assigned to the tenant, anyone with bulk export permissions can create an export. This feature creates a directory within a selected external storage location that contains audio files or video files in the format you specify, a CSV file with contact metadata, and, if applicable, Analytics data with transcriptions.

**NOTE** The Webex WFO administrator determines the metadata that can be exported. Only exportable metadata is saved to CSV format.

**IMPORTANT** You can export up to 1,000 total contacts per day per tenant with Bulk Contact Export. To export without limits, add an Advanced Bulk Contact Export license to your tenant. Contact your Customer Success Manager to request this license.

## Prerequisites

- You need the Bulk Contact Export permission. See [Manage roles and permissions for QM and Analytics](#).
- You need a configured External Storage location. See [Add external storage locations](#).

## Page location

Recordings

## Procedures

Schedule the bulk contact export feature to run automatically at regular intervals you specify, or run a bulk contact export immediately. Monitor the status of an export request on the Bulk Contact Export Audit page (Application Management > Global > Monitoring > Bulk Contact Export Audit).

### Schedule a recurring bulk contact export

1. On the Recordings page, create and save a filter set (see [Find interactions](#) in the *Webex WFO User Guide*).
2. Click the **Options** icon, and then click **Bulk Contact Export**.
3. Click the **New Export** tab.
4. Configure the export as defined in the described fields below.

**Export Name** — Enter a name for the bulk contact export file.

**Saved Search** — Select your saved filter set.

**Storage Location** — Select the external storage location to which you want to export the contacts.

**Media Type** — Select the file format in which Webex WFO exports audio and video files.

- **Audio/Video Formats** — Select the file format in which the audio/video media should be exported. Only available for contacts with both audio and screen recordings.

- **Audio-only Formats** — Select the file format in which the audio-only media should be exported. Only available for contacts with audio recordings.
- **None** — Select **Transcriptions Only** to export transcriptions only.

**Analytics Output Format** — Select the file format in which you want to export Analytics transcription data: JSON or XML. If you select **None**, Webex WFO does not export any Analytics transcription data. Select **None** to export only a CSV file with metadata.

5. Select **Send Scheduled Export**, and then schedule the export as described below.

**Weekly** — Select one or more days of the week, and then select the time on those days that Webex WFO will export the contacts.

**Monthly** — Select the day of the month, and then select the time on that day that Webex WFO will export the contacts.

6. Click **Create**.

When you create a scheduled bulk contact export, Webex WFO saves the export. To edit the export, click the **Saved Contact Export** tab and select the export from the **Saved Export File Name** drop-down list.

**NOTE** The first scheduled export (weekly or monthly) must occur after the next scheduled run of the App Dynamic Refresher task. Otherwise, the first scheduled export will not happen, although future exports will. By default, the App Dynamic Refresher task runs every fifteen minutes. Contact your system administrator to verify this schedule.

## Export contacts immediately

1. On the Recordings page, create and save a filter set (see [Find interactions](#)).
2. Click the **Options** icon, and then click **Bulk Contact Export**.
3. Click the **New Export** tab.
4. Configure the export as described below.

**Export Name** — Enter a name for the bulk contact export file.

**Saved Search** — Select your saved filter set.

**Storage Location** — Select the external storage location to which you want to export the contacts.

**Media Type** — Select the file format in which Webex WFO exports audio and video files.

- **Audio/Video Formats** — Select the file format in which the audio/video media should be exported. Only available for contacts with both audio and screen recordings.
- **Audio-only Formats**—Select the file format in which the audio-only media should be exported. Only available for contacts with audio recordings.
- **None** — Select **Transcriptions Only** to export transcriptions only.

**Analytics Output Format** — Select the file format in which you want to export Analytics transcription data: JSON or XML. If you select **None**, Webex WFO does not export any Analytics transcription data. Select **None** to export only a CSV file with metadata.

5. Select **Send Export Immediately**.
6. Click **Create**.

### Licensing Requirements for Bulk Contact Export

Cisco requires you to select a license type for bulk contact export.

- **Standard license**—Export up to 500 contacts daily through the UI.
- **Performance license**—Export contacts in bulk by configuring multiple contact export jobs periodically throughout each day.

**NOTE** By default, each export batch is limited to 10,000 per job with the max amount of total contacts per day at 40,000 with the Performance license. If there is a need for an increase in these limits please contact Cisco Professional Services or Cisco Support Services.

### Data included in the bulk contact export CSV file

The following table describes the data fields included in the bulk contact export CSV file.

Field	Type	Max Length	Description
Contact ID	Integer	64	The unique ID of the contact.
Last Name	String	60	Agent's first name.
First Name	String	60	Agent's last name.
Group Name	String	60	Name of the agent's group.
Team Name	String	60	Name of the agent's team.

Field	Type	Max Length	Description
Calling Number	String	64	The caller ID or Automatic Number Identification (ANI) of the calling party. Displays “unknown” if the calling number is unlisted or blocked. This field applies only to calls.
Called Number	String	64	The DID or Dialed Number Identification Service (DNIS) number of the phone that received the call. Displays “unknown” if the called number is unlisted or blocked. This field applies only to calls.
Date	Date	10	Date of the contact. The format is DD/MM/YYYY.
Time	Time	5 + 2	Start time of the contact. The format is HH:MM AM or PM.
Time Zone	String	60	The time zone where the contact was created and the call was recorded.  <div style="background-color: #006666; color: white; padding: 2px 5px; display: inline-block;">EXAMPLE</div> America/Chicago  <div style="background-color: #0066b3; color: white; padding: 2px 5px; display: inline-block;">NOTE</div> This field is not in UTC format.
Score	Integer	64	The evaluation score given to the contact.
Reason	String	64	The reason the conversation was recorded. This reason is set in the recording rule.
Recording Type	String	64	The recording type associated with this device. Valid values: <ul style="list-style-type: none"> <li>▪ AACC MLS Recording</li> <li>▪ Acme Packet Recording</li> <li>▪ AudioCodes Recording</li> <li>▪ AWS Connect Recording</li> <li>▪ BroadSoft Recording</li> <li>▪ CUBE Recording</li> <li>▪ End Point Recording</li> <li>▪ Event Notification</li> </ul>

Field	Type	Max Length	Description
			<ul style="list-style-type: none"> <li>▪ Five 9 VCC Recording</li> <li>▪ Genesys Recording</li> <li>▪ IP Office Recording</li> <li>▪ MediaSense Recording</li> <li>▪ Multiple Registration Recording</li> <li>▪ Network Recording</li> <li>▪ None</li> <li>▪ Reconciliation</li> <li>▪ RTP Logger Recording</li> <li>▪ Serenova Recording</li> <li>▪ Single Step Conference Recording</li> <li>▪ Sonus Recording</li> <li>▪ Unknown Recording Type</li> </ul> <p>Not all recording types may be available to you.</p>
Call Duration	Duration	8	<p>The length of time between the call being answered and the call being dropped, including ring time and extended screen time (if any) in HH:MM:SS. The call duration is received from the signaling service. This field applies only to calls.</p> <p>The call duration shown in the Contacts table and the Media Player might not be the same due to the difference in “event duration” (the time between events) and “recording duration” (the duration within the actual recorded file).</p> <p>In these scenarios, the call duration would be different:</p> <ul style="list-style-type: none"> <li>▪ When you use the Recording Controls API to pause, resume, or restart recording, the recording duration would be shorter than the actual call duration. For</li> </ul>

Field	Type	Max Length	Description
			<p>example, if a recording is restarted one minute into the call, the call duration is one minute longer than the recording duration.</p> <ul style="list-style-type: none"> <li>When you archive or clean a call with a long ring time, the Contacts table shows the event duration in the call duration field, while the Media Player shows the recording duration in the call duration field.</li> </ul>
Agent ID	String	64	Agent's system ID.
HR	Boolean	3	Indicates whether the contact has been marked for HR. The format is Yes/No.
Training	Boolean	3	Indicates whether the contact has been marked for training. The format is Yes/No.
State	String	32	<p>The current evaluation state of the contact. Valid values:</p> <ul style="list-style-type: none"> <li>Unscored</li> <li>Scored</li> <li>In Progress</li> <li>Needs Approval</li> </ul>
Contact Type	String	60	<p>Type of contact. Valid values:</p> <ul style="list-style-type: none"> <li>Call</li> <li>Non-call</li> <li>Screen-only</li> <li>Email</li> <li>Text</li> </ul>
From Address	String	512	Filters email associated with non-call contacts based on the email addresses in the From field.

Field	Type	Max Length	Description
			<b>NOTE</b> This option is only available when Analytics is enabled.
To Address	String	no limit	Filters email associated with non-call contacts based on the email addresses in the To field.
			<b>NOTE</b> This option is only available when Analytics is enabled.
Subject	String	1000	Filters email associated with non-call contacts based on the Subject field.
Evaluator Name	String	256	The name of the person who evaluated the contact.
Date Evaluated	String	10	The date when the contact was evaluated. Format is MM/DD/YYYY.
Approved By	String	256	The name of the person who approved the evaluation.
Evaluation Form	String	64	The name of the evaluation or calibration form used to score the customer conversation.
Calibrated	Boolean	3	Indicates whether the contact has been marked for calibration. The format is Yes/No.
MAX Silence	Duration	8	Maximum length of a silence event in the contact. The format is HH:MM:SS.
MIN Silence	Duration	8	Minimum length of a silence event in the contact. The format is HH:MM:SS.
AVG Silence	Duration	8	Average length of a silence event in the contact. The format is HH:MM:SS.
Total Silence Duration	Duration	8	Total length of all silence events in the contact. The format is HH:MM:SS.

Field	Type	Max Length	Description
Silence Events	Integer	64	Number of silence events in the contact.
% Silence	Decimal	3	The percentage of the call spent in a silence state (during which neither the caller or the agent is speaking). Format is .99.
MAX Talk Over	Duration	8	Maximum length of a talk over event in the contact. The format is HH:MM:SS.
MIN Talk Over	Duration	8	Minimum length of a talk over event in the contact. The format is HH:MM:SS.
AVG Talk Over	Duration	8	Average length of talk over events in the contact. The format is HH:MM:SS.
Total Talk Over Duration	Duration	8	Total length of all talk over events in the contact. The format is HH:MM:SS.
Talk Over Events	Integer	64	Number of talk over events in the contact.
% Talk Over	Decimal	3	The percentage of a call that is talk over. Format is .99.
Hold Events	Integer	—	Number of detected hold events.
MIN Hold Duration	Duration	—	The duration of the shortest hold event. Format = HH:MM:SS.
MAX Hold Duration	Duration	—	The duration of the longest hold event. Format = HH:MM:SS.
Total Hold Duration	Duration	—	The total duration of hold time. Format = HH:MM:SS.
AVG Hold Duration	Duration	—	The average hold time in HH:MM:SS.
% Hold	Decimal	—	The percentage of the call spent in a hold state.
End of Call	String	64	Name of the end-of-call workflow used for the contact.

Field	Type	Max Length	Description
Workflow			
Daily Workflow	String	64	Name of the daily workflow used for the contact.
Predictive Evaluation Score	Decimal	3	The predicted score of a contact without an evaluation score. Webex WFO bases this predicted score on Analytics data and previous evaluation scores. Webex WFO uses the following pieces of Analytics data: call attributes, agent attributes, speech hits, and desktop activity. Format is .99.
Net Promoter Score	Decimal	—	The net promoter score for the contact provided by the caller.
Predictive Net Promoter Score	Decimal	3	The predicted score of a contact without a net promoter score. Webex WFO bases this predicted score on Analytics data and previous net promoter scores. Webex WFO uses the following pieces of Analytics data: call attributes, agent attributes, desktop applications, desktop activity, speech hits, and call metadata. Format is .99.
Sentiment Score	String	—	The contact's sentiment score: positive, negative, or neutral.
Survey Score	Decimal	3	If the contact has an associated survey, provides the survey score, expressed as a percentage in decimal form.
Survey Name	String	255	If the contact has an associated survey, provides the survey name.
Agent ACD ID	String	256	ACD ID for the agent.
Associated Call ID	String	256	If the call involves a conference or transfer, the ID of the other agent.
<custom metadata>	varies	—	The custom metadata associated with the contact.

## Related topics

- [Add external storage locations](#)—Learn how to configure an external storage location.
- [Manage roles and permissions for QM and Analytics](#)—Learn more about the Bulk Contact Export permission prerequisite.
- [Find interactions](#)—Learn how to create and save a filter set.
- [Monitor scheduled bulk contact exports](#)—View the status of your export.

## Evaluate interactions

### Manage evaluation forms

Evaluators use evaluation forms to assess agents' interactions with customers to ensure that agents communicate effectively and follow company policies.

### Prerequisites

- You have the Evaluation Form permission.
- You know the sections, the questions within each section, and all the possible answers for each question. If you weight forms manually, you also know how much weight each section contributes to the total evaluation and how many points each question is worth.

### Page location

Application Management > QM > QM Configuration > Evaluation Form Manager

## Procedures

### Create an evaluation form

To complete the form, follow these steps and continue to [Create sections](#), [Create questions](#), and [Create answers for the questions](#)

1. Select **Create a new evaluation form**.
2. Enter the form name in the **Name** field.
3. Enter a description in the **Description** field.

4. Select a form type.
  - **Percentage**—The evaluation is scored based on a percentage. Sections and questions are weighted (0–100%), and the final score is a percentage.
 

**EXAMPLE** An agent scores four out of five questions correctly, and the questions are equally weighted. The agent’s final score is 80%.
  - **Points**—The evaluation is scored based on a point system. Sections are not weighted; instead, the number of points a section is worth determines its weight. Points-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, zero 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.
5. (Optional, percentage scoring only) To weight section and question values manually, select **Manual Weighting**. To have Webex WFO calculate weighting automatically, skip this step.
6. (Optional) To not require approval for completed evaluations, clear the **Approval Required** check box. To require approval, keep this box selected.
7. Select an evaluation response option.
  - **No Agent Response to Scored Evaluations**—Agents cannot respond to scored evaluations.
  - **Allow Agent to Acknowledge Scored Evaluations**—Agents can indicate that they have received their evaluations.
  - **Allow Agents to Acknowledge and Appeal Scored Evaluations**—Agents can ask for an evaluation to be re-scored if they disagree with the score.

## Create sections

1. In the **Sections** section, enter the name of the form’s first section in the **Name** field.

**EXAMPLE** Sections organize the questions on an evaluation form into groups. An evaluation form could have sections called Greeting, Security, Resolution, and Closing. For more information about sections, see [Advice for evaluation forms](#).

2. (Manual weighting only) Enter how much this section influences the form's total score in the **Weight** field. The weights for all sections must add up to 100.
3. (Optional) Select the **Start Color** and **End Color** for the section. These colors appear in a graph at the bottom of the form as the evaluator completes it.
4. Click **Add Section**.
5. Repeat steps 1–4 until you are done adding sections.

### Create questions

1. In the **Questions** section, select a section from the **Section** drop-down list.
2. Enter the question text into the **Text** field.
3. (Manual weighting only) Enter how much this question influences the section score in the **Weight** field. The weights for all questions in this section must add up to 100.
4. Click **Add Question**.
5. Repeat steps 1–4 until you are done adding questions to all the sections.

### Create answers for the questions

1. In the **Answers** section, select a question from the **Question** drop-down list.
2. Select how evaluators will answer the question from the **Add Answer Type** drop-down list.
  - Single Answer—Evaluators can write an open-ended answer.
  - Yes/No Answers—The answers are Yes, No, or Not Applicable.
  - Scale (1–5) Answers—Answers allow agents to earn partial credit. You can adjust the scale to use more or fewer levels.
3. (Optional) Edit the answer options as needed using the table at the bottom of the **Answers** section.
  - To make an answer a key performance indicator (KPI), click in the **Type** field until **KPI** appears.
  - To make an answer the default answer for the question, click in the **Default** field. **X** indicates the default answer. If an evaluator submits the evaluation without answering the question, Webex WFO enters the default answer.
4. (Optional) An agent's overall score falls into one of three categories: Meets Expectations, Exceeds Expectations, or Needs Improvement. To adjust the cutoff scores between these categories, click and drag the sliders in the **Band Ranges** section.

## Activate an evaluation form

**IMPORTANT** Activate a form only when you are completely finished creating it. You cannot edit an active form.

1. In the **Form Status** section, select **Active**.
2. Click **Save**.

## Edit an evaluation form

**IMPORTANT** If a form is active, it cannot be edited. If you need to edit an active form, clone it and edit the clone. See [Clone an evaluation form](#).

1. Select **Edit an existing evaluation form**.
2. Select **Editable** from the **Filter** options.
3. Select the form from the **Pick an existing evaluation form to edit** drop-down list.
4. Edit the form as needed.
5. Click **Save**.

## Clone an evaluation form

If you need to create a new evaluation form that is similar to an existing form, cloning the form is much easier than creating the form from scratch.

1. Select **Clone an existing evaluation form**.
2. Select the original form's activation status from the **Filter** options.
3. Select the form from the drop-down list.
4. Enter a name for the clone in the **Name** field.
5. Click **Save**. The details of the cloned form appear, and you can edit the clone.

## Delete an evaluation form

You cannot delete an evaluation form, but you can deactivate it.

**IMPORTANT** Deactivating a form is permanent. You cannot reactivate an inactive form, but you can clone it. See [Clone an evaluation form](#).

1. Select **Edit an existing evaluation form**.
2. Select **Active** from the **Filter** options.
3. Select the form from the drop-down list.

4. Scroll down to the **Form Status** section, and select **Inactive**.
5. Click **Save**.

### Export evaluation forms as a CSV file

To work with evaluation forms offline, you can export the evaluation form CSV file, add or edit forms, and import the file.

1. Select **Import and Export**.
2. Click **Export**. A CSV file containing the information about all evaluation forms downloads to your device.

### Import an evaluation form

1. Select **Import and Export**.
2. Click **Choose File**.
3. Select the file to upload. The file name appears next to the Choose File button.
4. Click **Import**. The form imports in Editable status.

An imported file must have all the columns in the table below, in order from left to right. We recommend that you first [Export evaluation forms as a CSV file](#), edit the exported file, and import it.

**IMPORTANT** If you are adding a new evaluation form via CSV import, all fields that involve IDs (formId, sectionId, questionId, and answerId) must be 0 (zero). Webex WFO adds these IDs automatically when you import the form.

If you are editing an existing form, do not change the IDs.

Column	Description
formId	The evaluation form's ID. This is a numerical value.
formName	The name of the evaluation form.
formDescription	The text that describes the evaluation form.
formStatus	<ul style="list-style-type: none"> <li>▪ Active—The form is available for evaluations and cannot be modified.</li> <li>▪ Editable—The form can be modified.</li> <li>▪ Inactive—The form cannot be used for evaluations.</li> </ul>

Column	Description
formApprovalRequired	<ul style="list-style-type: none"> <li>▪ TRUE—Approval is required</li> <li>▪ FALSE—Approval is not required</li> </ul>
formScoreTpe	<ul style="list-style-type: none"> <li>▪ Percentage—Evaluation is scored based on a percentage</li> <li>▪ Points—Evaluation is scored based on a point system</li> </ul>
formBandBreakOne	The lowest score for “meets expectations.”
formBandBreakTwo	The highest score for “meets expectations.”
manualWeighting	The manually set weights of sections and questions.
sectionId	The section’s ID. This is a numerical value.
sectionName	The name of the section.
sectionOrder	A whole number value that determines the order in which a section appears. Sections are ordered by lowest value first.
sectionWeight	The weight assigned to a section from 0–100.
questionID	The question’s ID.
questionText	The text for the question.
questionOrder	A whole-number value that determines the order in which a question appears. Questions are ordered by lowest value first.
questionWeight	The weight assigned to a question from 0–100.
answerId	The evaluation form’s ID. This is a numerical value.
answerType	<ul style="list-style-type: none"> <li>▪ Accumulative—Points for this option are added together to get the final score, assuming no KPI options are selected.</li> <li>▪ Not Applicable—Ignore this answer by not including it in any totals.</li> <li>▪ 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.</li> </ul>

Column	Description
AnswerLabel	<ul style="list-style-type: none"> <li>▪ Y—Yes.</li> <li>▪ N—No.</li> <li>▪ N/A—Not applicable.</li> <li>▪ &lt;text&gt;—A customized answer.</li> <li>▪ 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.</li> </ul>
answerIsDefault	<ul style="list-style-type: none"> <li>▪ FALSE—This answer is not the default.</li> <li>▪ TRUE—This answer is the default.</li> </ul>
answerOrder	A whole-number value that determines the order in which an answer appears. Answers are ordered by lowest value first.
answerPoints	The number of points assigned to the answer.

## Related topics

- [Advice for evaluation forms](#)—In-depth information about how evaluation forms work and recommendations for creating effective evaluations.
- [Configure KPIs](#)—How to set up KPI goals and assign them to groups and teams.

## Advice for evaluation forms

### Guidelines for effective evaluations

An evaluation is the end result you receive from a Quality Management recording solution. The “Quality” in Quality Management comes from evaluating the methods and language the agents use while working with customers. Evaluations call out the elements you want the agents to use in a call.

**EXAMPLE** The agent answers a call by saying “Good morning, this is Bob at XYZ Company, how can I help you today?” The evaluation form has three introductory questions: Did the agent use a greeting? Did the agent identify him or herself and the company? Did the agent ask an open-ended question? The evaluator answers each of these questions with “yes.”

The evaluation indicates excellent agent behavior and the areas where agents need improvement or training.

When you are implementing evaluations, consider the following best practices:

- Prioritize your initiatives—Start with the highest value or highest priority.
- Establish what success looks like—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 that you can measure improvement over time and verify if your training and coaching are improving performance.
- Review agent evaluations and play back calls to determine the root causes of problems—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.

### Guidelines for evaluation form questions

Consider the following tips when writing evaluation form questions.

**Use simple questions.** Simple questions allow managers and supervisors to investigate the root cause of an agent’s low score.

- Make each question a single question (don’t use questions within questions).
- Limit the scope of a question to a single measurable event.

**EXAMPLE** “Did the agent go the extra mile?” is a bad question. What does it mean to go the extra mile? Does going the extra mile look the same for every contact? Probably not. Instead, identify specific actions that agents who go the extra mile could do. For example, did the agent offer to follow up with the caller to make sure the issue was resolved? This question asks about a specific action, and everyone will know what a “yes” or “no” answer means.

- Write the question so that both the evaluator and the agent will clearly understand how the agent performed.

Use questions that require a **yes or no answer** whenever possible. Yes or no questions provide clear and concise answers. They also require less documentation and collaboration efforts to get consistent evaluation

measurements. These types of answers are more objective. By contrast, numerical ranges require you to establish 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 create three sections named Greeting, Order Entry, and Closing.

- When using percentage-based scoring, assign higher weights to the most important questions and sections.
- Use no more than ten sections in an evaluation form.
- Use no more than ten questions in a section.

Decide whether there are any **key points of failure**. Mark questions that address critical behavior (such as courtesy) as Key Performance Indicators (KPIs). If such a question is scored negatively, the entire evaluation fails.

If you are using **predictive evaluation scores**, write questions that relate to the kind of data that Webex WFO pulls and analyzes. See [Configure predictions](#) for more information.

**EXAMPLE** You use QM to measure the amount of silence in each contact. The evaluation form asks, “Did the agent give prompt attention to the customer?”

**EXAMPLE** You have a Phonetics Analytics category called “Greeting” with phrases like “thank you for calling,” “my name is, “ and “how may I help you today.” The evaluation form asks, “Did the agent properly greet the caller?”

### Key performance indicator (KPI) questions

To use KPI questions, you first need to identify the business goals for the contact center. When you break down the business goals, you need to identify the challenging areas and how you can measure success in meeting those goals. For example, you can break the business goals into the following:

- First contact resolution (FCR)
- Sales process and skills

- Product knowledge—You can use contact evaluations 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 factors result in longer calls and then provide solutions that result in fewer long calls and improve the average call duration.

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 your business goals for the contact center. You can then use the evaluation forms to measure your agents’ performance against your contact center’s business goals.

A KPI can have a positive or negative impact on your contact center’s business goals. The value assigned to the KPI answer reflects that impact.

**EXAMPLE** Your contact center’s business goals are to increase revenue, improve customer satisfaction, and reduce overall cost. An agent who turns an unhappy customer into a happy customer has a positive impact on your contact center’s business goals. An agent who loses a potential sale has a negative impact on your contact center’s business goals.

### ***How KPI questions are scored***

A question with one or more KPI answers is labeled with “KPI” in the **Type** field. A KPI overrides the final evaluation score. If multiple KPI answers are defined, the KPI answers are prioritized to determine which KPI answer is used to determine the final score.

When a KPI question appears in a section, QM scores the KPI question like any other question. The total value for that section appears in the section score, including the KPI question. QM retains the scores you assign to all questions and sections. These scores are available for review.

You must continue to score the entire evaluation when a KPI answer triggers a final score.

**Percentage-based scoring**

When you create an evaluation form, you must choose either percentage-based scoring or [Point-based scoring](#). Percentage-based scoring is based on a range of whole numbers from 0 to 100. As the evaluator scores a section on a percentage-based evaluation form, a rolling total and percent appear on that section.

***About percentage-based sections***

Each percentage-based section has its own weight that determines how much it influences the total score for the evaluation form. Each section tab displays its section weight. 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:

$$\text{Section score as a percentage} \times \text{section weight} = \text{weighted section score}$$

$$\text{Sum of all weighted section scores} = \text{total score as a percentage}$$
**EXAMPLE**

The form has two sections called Greet and Assess. The Greet section has a possible total of 15 points and is worth 40% of the overall score. The agent has earned 8 out of the possible 15 points, or 60%, for this section. The Assess section has a possible total of 10 points and is worth 60%. The agent has earned 8 points, or 80%, for this section. The overall score is calculated as follows:

$$\text{Greeting section} = 60\% \times 0.4 = 24\%$$

$$\text{Assess section} = 80\% \times 0.6 = 48\%$$

$$24\% + 48\% = 72\% \text{ overall score}$$
***About percentage-based questions***

Each percentage-based question has its own weight that determines how much it influences the total score for the section. The weight is converted into points. The maximum score for a section is 100% (or 100 points), no matter how many questions it contains. Webex WFO uses this formula used to calculate the weighted score for a single percentage-based question:

$$(\text{actual score} \div \text{maximum score}) \times \text{weight} = \text{weighted score}$$

**EXAMPLE** In a section with three 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.

The following table shows the potential points that a question with a 0–5 answer scale could earn if it has a weight of 25% or 50%. If an evaluator answers N/A, Webex WFO treats the section score as if the question does not exist.

Scale		
Answer	Points Earned (Question Weight of 25%)	Points Earned (Question Weight of 50%)
N/A	—	—
0	0	0
1	5	10
2	10	20
3	15	30
4	20	40
5	25	50

The following table shows the potential points that a Yes/No question could earn if it has a weight of 25% or 50%.

Answer	Points Earned (Question Weight of 25%)	Points Earned (Question Weight of 50%)
Yes	25	50
No	0	0
N/A	—	—

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

#### Scored example for a three-question section

Question	Weight	Type	Score	Weighted Score
1	50%	0–5 scale	4	40
2	25%	0–5 scale	3	15
3	25%	Yes or No	Yes	25
<b>Section Score</b>				<b>80%</b>

**Scored example for a four-question section**

Question	Weight	Type	Score	Weighted Score
1	60%	0–5 scale	3	36
2	15%	0–5 scale	4	12
3	20%	Yes or No	No	0
4	5%	Yes or No	Yes	5
<b>Section Score</b>				<b>53%</b>

**Scored example with “not applicable” (N/A) as an answer**

Question	Weight	Type	Score	Weighted Score
1	60%	0–5 scale	NA	—
2	15%	0–5 scale	4	12
3	20%	Yes or No	No	0
4	5%	Yes or No	Yes	5
<b>Section Score</b>				<b>42.5%</b>

**NOTE** An answer of N/A removes that question from the total possible score. So for this example, the score of 43% is based on a score of 17 out of a total of 40 instead of a total of 100.

***How percentage-based evaluations are scored***

When you save an evaluation form, the form calculates the Possible Points, Points Earned, and Percentage (or score). These formulas are based on the number of sections in an evaluation form.

**Possible points**

The total possible number of points for a scored evaluation form is the sum of each section’s possible points multiplied by the total number of points:

$$\begin{aligned} \text{Form Possible Points} = & \\ & \text{Section 1 weight} \times \text{Section 1 Possible Points} \\ & + \text{Section 2 weight} \times \text{Section 2 Possible Points} \\ & + \text{Section 3 weight} \times \text{Section 3 Possible Points} \end{aligned}$$

+ Section 4 weight × Section 4 Possible Points

...

The following example shows how Webex WFO calculates the total possible number of points for a scored evaluation form with four sections:

Section	Weight	Possible Points for the Section	Points the Section Contributes to the Form
1	25%	100	25
2	25%	75	18.75
3	25%	80	20
4	25%	100	25
<b>Total Possible Points</b>			<b>88.75</b>

### Points earned

The total number of points earned on a scored evaluation is calculated using the following formula:

Form Total Points Earned =  
 Section 1 weight × Section 1 Total Points Earned  
 + Section 2 weight × Section 2 Total Points Earned  
 + Section 3 weight × Section 3 Total Points Earned  
 + Section 3 weight × Section 3 Total Points Earned

...

The following example shows how Webex WFO calculates the number of points earned on an evaluation form with four sections:

Section	Weight	Points Earned	Points the Section Contributes to the Total Score
1	25%	85	21.25
2	25%	60	15
3	25%	65	16.25
4	25%	90	22.5

Section	Weight	Points Earned	Points the Section Contributes to the Total Score
<b>Total Points Earned</b>			<b>75</b>

### Percentage score

The percentage for a scored evaluation form is calculated using the following formula:

$$\text{Form Percentage} = \frac{\text{Form Points Earned}}{\text{Form Possible Points}}$$

The following example shows how Webex WFO calculates the percentage score from the previous two tables:

$$75 \div 88.75 = 84.51\%$$

### Point-based scoring

When you create an evaluation form, you must choose either point-based scoring or Percentage-based scoring. Point-based scoring is based on a range of whole numbers. The minimum number can be less than zero.

**EXAMPLE** The minimum number of points on a form is -50, and the maximum number of points is 150. A score of 0 is considered adequate or average. Positive points are awarded for exceptional service when the agent performs beyond the normal expected outcome. Negative points are subtracted for poor service and indicate the agent needs additional coaching.

The minimum score for a points-based evaluation form is the total of all minimum scores that are assigned to questions.

The maximum score for a points-based evaluation form is the total of all maximum scores that are assigned to questions.

## Set goals for evaluators

A contact goal is a list of contacts assigned to evaluators for review, evaluation, or calibration. When you create a goal, you specify the criteria for the contacts and the due date. Goals appear on evaluators' Contact Queue page.

## Prerequisites

- Your organization uses Cisco Quality Management
- Some contact criteria require Cisco Analytics (see [Step 10](#) below)
- You have the Administer Contact Goals permissions and at least one of these permissions:
  - Create Evaluation Goal (needed to create evaluation goals)
  - Create Calibration Goal (needed to create calibration goals)
  - Create Review Goal (needed to create review goals)
- People who are assigned the goals have these permissions:
  - View Contacts
  - View Contact Goal
  - Evaluate Contact (needed to complete evaluation goals)
  - Calibrate Contact (needed to complete calibration goals)

## Page location

Application Management > QM > QM Contact Flows > Contact Goal Administration

## Procedures

### View all goals

- Select **View Contact Goals**. Goals are sorted by goal ID.

## Create a goal

1. Select **Create a new goal**.
2. Enter the goal's name in the **Name** field.
3. Select the type of task from the **Action** drop-down list.
4. Enter the number of contacts included in the goal in the **Number of Contacts** field.
5. Select the contact type from the **Contact Type** drop-down list.
6. From the **Contact Level** drop-down list, select whether the number of contacts in the goal is per agent or per team.

**EXAMPLE** The goal is to evaluate 10 contacts per team. You select Team from the Contact Level drop-down list.

7. Select the goal's due date from the **Goal Frequency** drop-down list. These are your options:
  - Day, Week, or Month—Webex WFO assigns the goal every day, week, or month.
  - Specific Date—Evaluators must meet the goal by a specific date and time. After this date, the goal becomes inactive. Date and time fields appear if you select this option.
  - Date Range—Evaluators must meet the goal between a specific date range. After the end date, the goal becomes inactive. Effective Start Date and Effective End Date fields appear if you select this option.
8. (Optional) To limit the goal to contacts received within a specific time frame, select **Only assign a contact between these dates** and select the start date and end date.
9. (Optional) Enter instructions for the evaluators in the **Instructions** field.
10. From the **Classifier** drop-down list, select the first criterion for Webex WFO to use when selecting contacts for the goal. Additional fields appear based on your selection. These are your options:
  - Calls Less Than—(Call only) Calls that are shorter than a specific duration. Enter the duration or click the clock icon to select it.
  - Calls Greater Than—(Call only) Calls that are longer than a specific duration. Enter the duration or click the clock icon to select it.
  - Has Metadata Field—Contacts that have a particular metadata field, no matter what value is in that field. Select the metadata field.

- Has Metadata Field With Value—Contacts that have a particular metadata field with a specific value. Select the metadata field and enter the value.
- To—(Text and Email only) Contacts sent to a specific recipient. Enter the recipient.
- From—(Text and Email only) Contacts received from a specific sender. Enter the sender.
- Subject—(Email only) Contacts with a specific keyword in the subject line. Enter the keyword.
- Random Call/Text/Email—Any contacts that are within the evaluator’s scope.
- Recording Reason—(Call only) Contacts with a particular value in the Reason field. Select the reason.
- Predictive Net Promoter Score Less Than—Contacts with a predicted net promoter score less than a specific number. Enter the score. (Requires Cisco Analytics)
- Predictive Net Promoter Score Greater Than—Contacts with a predicted net promoter score greater than a specific number. Enter the score. (Requires Cisco Analytics)
- Predictive Evaluation Score Less Than—Contacts with a predicted evaluation score less than a specific number. Enter the score. (Requires Cisco Analytics)
- Predictive Evaluation Score Greater Than—Contacts with a predicted evaluation score less than a specific number. Enter the score. (Requires Cisco Analytics)

11. Click **Add**.

12. (Optional) Select additional criteria from the **Classifier** drop-down list, and click **Add**. If Webex WFO doesn’t find any contacts that meet the first classifier you selected, it will look for contacts that meet the second classifier, and so on, until it finds at least one contact. If it finds at least one contact that meets a classifier, it stops looking for contacts that meet other classifiers that are lower on the list.

**NOTE** If Webex WFO finds no contacts that meet any of the classifiers for a goal, it does not assign the goal to evaluators. If a contact that meets a goal classifier becomes available later, then Webex WFO assigns the goal to evaluators. This delay in assigning goals could prevent evaluators from meeting that goal for a particular time period.

13. (Optional) To reorder the classifiers, select a classifier and click the up or down arrows. To delete a classifier, select it and click **Remove**.

14. In the **Users** section, move the evaluators who must complete the goal from **Available** to **Assigned**.

15. Select **Active** in the **Goal Status** section.

**IMPORTANT** Activate a goal only when you are completely finished creating it. You cannot edit an active goal.

16. Click **Save**.

### Copy a goal

If you need to create a new goal that is similar to an existing goal, copying the goal is easier than creating the goal from scratch.

1. Select **Copy an existing goal**.
2. Select the original goal from the **Pick an existing goal to copy** drop-down list.
3. Edit the copy if needed.
4. Select **Active** in the **Goal Status** section.

**IMPORTANT** Activate a goal only when you are completely finished creating it. You cannot edit an active goal.

5. Click **Save**.

### Change the people assigned to an active goal

The only thing you can change about an active goal is the people who are assigned to it.

1. Select **Edit an existing goal**.
2. Select the goal from the **Pick an existing goal to edit** drop-down list.
3. In the **Users** section, move people to or from the **Assigned** column.
4. Click **Save**.

### Edit a goal

You can only edit goals with Editable status.

1. Select **Edit an existing goal**.
2. Select the goal from the **Pick an existing goal to edit** drop-down list.
3. Edit the goal and click **Save**.

### Delete a goal

You can't delete a goal, but you can deactivate it. Deactivated goals no longer send contacts to evaluators' contact queues.

**IMPORTANT** Deactivating a goal is permanent. You cannot reactivate or edit an inactive goal, but you can copy it. See [Copy a goal](#).

1. Select **Edit an existing goal**.
2. Select the goal from the **Pick an existing goal to edit** drop-down list.
3. In the **Goal Status** section, select **Inactive**.
4. Click **Save**.

## Related topics

- [Access interactions assigned to you](#)—Information about contact goals from the evaluator’s perspective

## Assign review, evaluations, and calibrations manually

You can create a task in which one or more users can calibrate, evaluate, or review one or more contacts. Webex WFO adds the contacts assigned by this task to the contact queue for those users (see [Access interactions assigned to you](#)).

**NOTE** The contacts you use to create tasks must be less than a year old. Contacts more than a year old do not appear in the contact queue. To share a contact that is more than a year old, see [Create hyperlinks to recordings](#).

### To create an ad hoc task:

1. Select one or more contacts.
2. Click **Create Task**. The Ad Hoc Task Configuration page appears.
3. Enter a name for your ad hoc task.
4. Select the task type. The task you select determines which users are available in the **Assign To** field. Webex WFO displays only users who have the permissions to perform the specified task.
  - **Calibrate**—Multiple users can be assigned the task of calibrating the selected contacts. The **Evaluation Form** field appears when you select **Calibrate**. Select the form that you want to use to calibrate the contact.

**NOTE** If you select this option, any contacts not already marked for calibration will be marked for calibration after you create the task.

- **Evaluate**—Only one user can be assigned to evaluate the selected contacts. The **Evaluation Form** field appears when you select **Evaluate**. Select the form that you want to use to evaluate the contact.
  - **Review**—Multiple users can be assigned to review (listen to) the call. The **Playback Duration Configuration** slider appears when you select **Review**. The slider determines the percentage of the call (from the beginning) the assignee must review to complete the task. The default is 100%. You can select the percentage in increments of 10%.
5. Select the users to whom you are assigning the task. If you are assigning a Calibration or Review, click **Select All** to add all users in the group to the task.
  6. Enter a completion date for the task, or click the calendar icon and select a completion date.
  7. (Optional) Select the **Notify on Complete** check box if you want to receive a notification when each assignee completes the task.

**NOTE** To be notified, you must also be assigned to the Contact Goal Completed notification.

8. (Optional) Enter any specific instructions for the assignees.
9. Click **Create Task**.

### Mark an interaction for calibration

When you mark a contact for calibration, any user whose role includes the Calibrate Contact permission and who has scope over the contact can evaluate the contact in the calibration mode.

The scores from an evaluation completed in the calibration mode are included in the Evaluation Calibration report, where you can compare and contrast the scores that all evaluators gave the contact. This allows you to see whether your evaluators give consistent scores.

For more information about calibration, see [Calibrate evaluators](#).

### To mark a contact for calibration:

1. On the Recordings page, select a contact in the contacts table.
2. Click the **Mark for Calibration** icon.
3. Select the desired evaluation form.
4. Click **OK**.

## Evaluate an interaction

The Evaluation panel helps your contact center achieve the highest possible standards of quality measurement and agent performance.

QM and Webex WFO Access licenses are required to view the Evaluation panel. Contacts of any type and with any type of content can be evaluated.

To use the Evaluations panel, your role must have specific permissions:

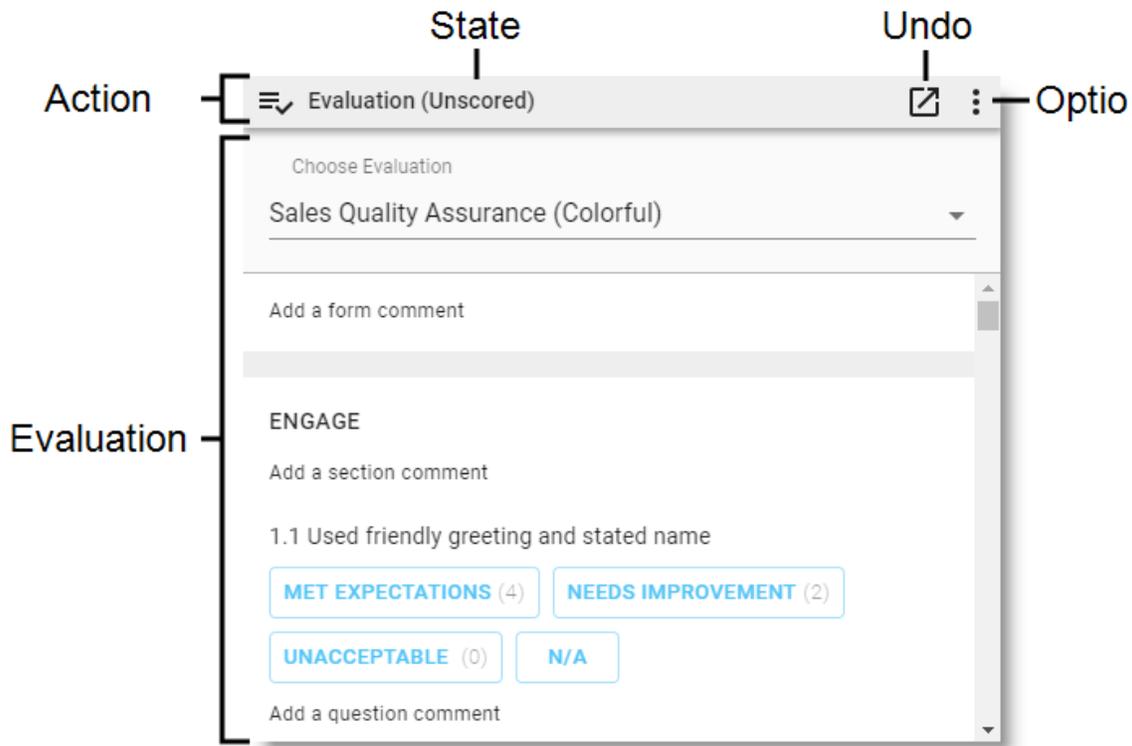
- If your role has the View Evaluations permission but not the Evaluate Contact permission, you can only review the evaluation form.
- If your role has both the View Evaluations and Evaluate Contact permissions, you can select and complete an evaluation form. If the contact is a call, you can play back the audio and screen recordings while evaluating the contact.

Evaluations are configured on the Evaluation Form Manager page (see [Manage evaluation forms](#)). They use one of two scoring methods:

- Percentage-based scoring—Contact evaluation sections and questions are weighted on a 0 to 100 percent scale, and the final score is a percentage.
- Point-based scoring—Contact evaluations are scored on a point system. Zero 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.

The performance statistics available on your dashboard, in QM reports, and in Data Explorer reports are based on these scores.

The Evaluation panel features the action toolbar and the evaluation form.



### Action toolbar

The action toolbar displays the current state of the evaluation form and enables you to interact with it. You can click the Undock icon to open the form in a new browser window, or you can click the Options icon to take an action after the evaluation form is filled out.

**NOTE** You cannot undock forms if you are using a pop-up blocker. To undock forms, disable your pop-up blocker.

**NOTE** Internet Explorer does not support undocking.

The options available depend on your role, the contact's state, and the evaluation form's configuration. The following table lists all options and their dependencies beyond the View Evaluations and Evaluate Contact permissions.

Option	Details	
Acknowledge Evaluation	Description	Lets your supervisor know you have seen and reviewed the evaluation. When you acknowledge an evaluation, Webex WFO adds a banner containing your name and the date of your acknowledgment to the top of the form.
	State	No change. The evaluation stays in a Scored state.
	Additional Configurations Required	This action is available only when the evaluation form has the “Allow agent to acknowledge scored evaluations” check box selected.
Appeal Evaluation	Description	<p>Lets an evaluator know that you want an evaluation reviewed and rescored.</p> <p>When you appeal an evaluation, you can state a reason for your appeal. Webex WFO adds this reason as a form comment, and it also adds a banner containing your name and the date of your appeal to the top of the form.</p>
	State	No changes. The evaluation stays in a Scored state until the evaluator edits it.
	Additional Configurations Required	<p>This action is available only when the evaluation form has the “Allow agent to acknowledge and appeal scored evaluations” check box selected.</p> <p>To be notified when an agent appeals an evaluation, the evaluator must be assigned to the Evaluation Appeal Request notification. When notified, the evaluator must edit the form and do one of two things:</p> <ul style="list-style-type: none"> <li>▪ Revise the evaluation as desired, and then click Complete.</li> <li>▪ Click Complete without changing anything.</li> </ul>

Option	Details	
Approve	Description	Approves a scored evaluation.
	State	Changes from Needs Approval to Scored.
	Additional Permissions Required	<p>To approve an evaluation completed by another evaluator, your role must include the Approve Contact Evaluation permission.</p> <p>To approve an evaluation that you completed, your role must include the Self-Approve Contact Evaluation permission.</p>
	Additional Configurations Required	<p>This action is available only when the evaluation form has the “Approval Required” check box selected.</p> <p>To be notified when an evaluation requires approval, you must be assigned to the Evaluation Needs Approval notification.</p>
Complete	Description	Completes and submits the evaluation form.
	State	<p>Depends on whether the evaluation requires approval:</p> <ul style="list-style-type: none"> <li>▪ Approval not required—Changes from In Progress to Scored.</li> <li>▪ Approval required—Changes from In Progress to Needs Approval.</li> </ul>
Edit	Description	Allows you to change the answers on an evaluation that is in a Scored state. You can edit any evaluation that you completed.
	State	Changes from Scored to In Progress.
	Additional Permissions Required	To edit evaluations completed by other evaluators, your role must include the Edit Any Evaluation permission.

Option	Details	
Mode	Description	<p>Changes the mode for the evaluation form:</p> <ul style="list-style-type: none"> <li>▪ Evaluation—Complete the form as a standard quality evaluation.</li> <li>▪ Calibration—Complete the form as a calibration. See <a href="#">Calibrate evaluators</a>.</li> </ul> <p>This option appears only after the contact is marked for calibration. Evaluation is the default mode, even if the contact is marked for calibration.</p> <hr/> <p>Additional Permissions Required</p> <p>To calibrate a contact handled by another user in your scope, your role must include the Calibrate Contact permission.</p> <p>To calibrate a contact that you handled, your role must include the Self-Calibrate Contact permission.</p>
Reject	Description	Rejects an evaluation that needs approval. The evaluator can then revise the form and resubmit it for approval.
	State	Changes from Needs Approval to In Progress.
	Additional Permissions Required	Your role must include the Approve Contact Evaluation permission.
	Additional Configurations Required	<p>This action only appears when the evaluation form has the “Approval Required” check box selected.</p> <p>To be notified when an evaluation requires approval, you must be assigned to the Evaluation Needs Approval notification.</p>

Option	Details	
Reset Form	Description	Clears all answers from the selected evaluation form and any associated data (for example, metrics in QM reports). You can then select different answers or a different form.
	State	Changes from Scored or In Progress to Unscored.
	Additional Permissions Required	You can reset any evaluation form that you completed. To reset an evaluation completed by another evaluator, your role must include the Edit Any Evaluation permission.

## Evaluation form

The following table describes the evaluation form fields.

Field	Description
Choose Evaluation	Selects the evaluation form that you want to use. Your administrator determines which evaluation forms are available.
	<p><b>NOTE</b> You cannot switch the evaluation form if the evaluation has been started by another user or is in the Needs Approval or Scored state. To change the evaluation form when the evaluation is in the Needs Approval or Scored state, the approver must reject the evaluation to return it to the In Progress state.</p>
Current Score	For point-based evaluation forms, the running total of the number of points received for the entire evaluation form. For percentage-based evaluation forms, the running total of the percentage received for the entire evaluation form.
Final Score	For point-based evaluation forms, the total number of points received for the completed evaluation form. For percentage-based evaluation forms, the final percentage received for the completed evaluation form.
Section Score	For point-based evaluation forms, the total number of points received for a section in the evaluation form. For percentage-based evaluation forms, the percentage received for the current section in the evaluation form.
Add a form comment	Adds a comment to the header of the evaluation form.

Field	Description
Add a section comment	Adds a comment to a specific section.
Add a question comment	Adds a comment to a specific question.
Chart	<p>The Chart tab displays a cumulative progress chart. This chart contains several rings. Each ring represents a section in the evaluation, and each ring is segmented by the number of questions it contains. The colors associated with these rings depend on the configuration of the evaluation form (see <a href="#">Manage evaluation forms</a>).</p> <p>Each segment of each ring displays the score received for the associated question. The middle of the circle displays the current or final score. Unanswered sections and questions display a dash (—) instead of a number.</p>

### Pointers for completing an evaluation form

When completing an evaluation form, remember the following points:

- If you leave the evaluation form before you complete the evaluation, Webex WFO automatically saves the form and marks it as In Progress. The agent will not see the evaluation until it is complete.
- When the evaluation is saved but not completed, only the original evaluator can change the evaluation form. If for some reason Evaluator A is no longer available and Evaluator B must take over Evaluator A's evaluations, Evaluator B must log in as Evaluator A and either complete the evaluation or reset the form (by clicking Reset Form) and then log in as Evaluator B and complete the evaluation.
- Once the evaluation is completed, only the original evaluator can modify the evaluation scoring. If for some reason Evaluator A is no longer available and Evaluator B must take over Evaluator A's evaluations, Evaluator B must log in as Evaluator A.

### Calibrate evaluators

A calibration is a special type of evaluation that allows multiple users to evaluate a single contact.

Calibration helps ensure consistency among evaluators by allowing you to compare how different evaluators completed the same evaluation.

If a contact is marked for calibration, an evaluator can complete the evaluation form as a calibration as well as a standard quality evaluation. Make sure to select the appropriate mode when you evaluate a contact.

Only the Evaluation Calibration report includes the calibration score. Neither team nor agent results in Dashboard or Reports include the calibration score.

**NOTE** When a contact is scored as a standard quality evaluation, it appears as scored when you search for All Evaluations or My Evaluations. When it is scored as a calibration, it appears as scored when you search for My Pending Calibrations.

### Find contacts marked for calibration

1. On the Recordings page, click the **Filter list** icon. The Filters panel opens.
2. Configure a filter set that includes the **Search Scope** filter, with the criteria of **My Pending Calibrations**.
3. Click **Apply**. The filter results display all contacts within your scope that are marked for calibration.

### Evaluation calibration report

The Evaluation report displays calibrated evaluation score results. It reports only scored evaluations marked for calibration. It does not display standard evaluation scores. Use this report to evaluate your evaluators.

**NOTE** You must have the View Evaluator Details permission enabled in order to have access to this report.

**NOTE** This report might take several minutes to generate.

## Analyze evaluation data

In addition to standard evaluation reports, you can also use Analytics to predict net promoter scores or evaluation scores.

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### View evaluation reports

In Webex WFO, the time associated with a contact is the time the contact occurred at the agent's location. If the time zone associated with the contact is unknown to Webex WFO, then the time is displayed in Greenwich Mean Time (GMT).

Scores are rounded up for individual sections in evaluation and survey forms. However, in reports that show section averages for agents, teams, and groups, the section scores are first added and averaged before being rounded up. As a result, the average displayed in reports will vary slightly from the number calculated by adding up section scores as displayed in an evaluation or survey form and then averaging them.

For information about the standard QM and WFM reports that come with Webex WFO, and for instructions on how to run a standard report, see [Standard reports](#).

## Configure predictions

With predictions, you can configure Webex WFO to estimate a contact's net promoter score or evaluation score. Based on the predicted score, you can then create a workflow that sends the contact to an evaluator. Predictions help your evaluators focus on contacts that are most likely to result in agent coaching.

The predictive engine combines the scores from contacts over the past six months with Analytics data and creates a new model each week. The default day to create a new model is Sunday, but a system administrator can select a different day.

## Prerequisites

- You have an Analytics license.
- You have a Linux server configured for the additional Webex WFO Analytics features. See “Installing Applied Analytics Features” in the *Webex WFO Installation Guide*.
- You have scope over the agent group that the prediction is for. You must have scope over the group, not just teams within the group.
- For predictive net promoter scores, you have at least 1,000 contacts with associated net promoter scores.
- For predictive evaluations, you have at least 1,000 contacts evaluated with the same form.

## Page location

Varies. See the procedures below for more information.

## Procedures

There are two steps to configuring the predictive features in Webex WFO: creating a model and applying the model. To create the model, you must first supply the predictive engine with scores for existing contacts.

## Predictive Net Promoter Scores

The Predictive Net Promoter Score model uses customer interactions, agent performance, speech hits, and other factors to determine a likely net promoter score for the contact. The scores that the model creates appear in the Predictive Net Promoter Score field of the Recording grid and in the Predictive Net Promoter Score dashboard in Data Explorer. You can also add them to dashboards in both Data Explorer and Cisco Advanced Reporting.

Webex WFO creates predictive net promoter scores for audio contacts only. Other kinds of contacts do not support predictive net promoter scores.

## Configure the Predictive Net Promoter Score model

1. On the Metadata Manager page (Application Management > QM > QM Configuration > Metadata Manager), create a new metadata field. See [Manage metadata fields](#) for more information.

**IMPORTANT** Enter “Net Promoter Score” in the **Metadata Label** field. This label is not case sensitive.

2. Configure the Net Promoter Score metadata field that you just created with the Net Promoter Score information from your customers.

**NOTE** See [Add post-call surveys to contacts](#) to integrate net promoter scores captured in post-call surveys.

The predictive engine will pull the necessary information and create a model on the following Sunday.

## Apply the Predictive Net Promoter Score model

- On the Task Manager page (Application Management > Analytics > Task Manager), create a new task. Select **Predictive Net Promoter Score** from the **Type** drop-down list. See [Create Analytics tasks](#) for more information.

## Predictive Evaluation Scores

The Predictive Evaluation Score model uses a variety of factors to determine a likely evaluation score (on a specific evaluation form) for the contact. Predicted scores appear in the Predictive Evaluation Score field in the contacts table on the Recordings page and in the Predictive Evaluations dashboard in Data Explorer. You can also add them to dashboards in both Data Explorer and Cisco Advanced Reporting.

Webex WFO creates predictive evaluation scores for audio contacts only. Other kinds of contacts do not support predictive evaluation scores.

Each evaluation form needs its own model. To create models for multiple forms, follow the steps below for each form.

## Configure the Predictive Evaluation Score model

1. On the Evaluation Form Management page (Application Management > QM > QM Configuration > Evaluation Form Manager), create an active evaluation form. See [Manage evaluation forms](#) and [Advice for evaluation forms](#) for more information.
2. On the Phrase Manager page (Application Management > Analytics > Phrase Manager), create phrases and categories that closely relate to the questions that the evaluation form asks. See [Create and manage phrases and phrase categories \(early access\)](#) for more information.

**EXAMPLE** The evaluation form asks, “Did the agent properly greet the caller?” You have a Phonetics Analytics category called “Greeting” with phrases like “thank you for calling,” “my name is,” and “how may I help you today.”

3. Use the evaluation form to manually evaluate at least 1,000 contacts.
4. On the Workflow Administration page (Application Management > QM > QM Contact Flows), create a workflow that applies the form to incoming calls.

**IMPORTANT** The workflow must apply the evaluation form either before or at the same time as the contact audio is uploaded to Webex WFO. Contacts do not receive predictive evaluation scores if the evaluation form is applied after the audio is uploaded. See [Automate QM workflows](#) for more information.

## Apply the Predictive Evaluation Score model

- On the Task Manager page (Application Management > Analytics > Task Manager), create a new task. Select **Predictive Evaluation Score** from the **Type** drop-down list. Select the **Ongoing** check box. See [Create Analytics tasks](#) for more information.

## Best practices

### General

Predictive scores are intended to supplement (not replace) manually scored contacts.

While there is no ideal number of scores that will create a perfect model, maintaining a large number of scored contacts (at least 1,000) is necessary for the model to become more accurate over time. The predictive model continues to learn as it receives more data, but it does not use data that is older than six months. To

keep the model accurate, you must continue giving it data, either by pulling in more net promoter scores or by continuing to use the evaluation form for manual evaluations. If the number of available scores falls below 50, the model will stop working.

You can create an ad hoc Analytics task using the predictive features. However, the predictive models use data from only the past six months. If you run an ad hoc task on contacts older than six months, you are less likely to get accurate data.

For best results, the Analytics retention time (set on the Analytics Configuration page) should be at least six months. See [Configure Analytics](#).

Tune your phrases and categories periodically. Tuning helps ensure your categories and phrases are relevant and return the calls you need for analysis. Follow tuning best practices.

### **Predictive Net Promoter Scores**

WFM data greatly improves the accuracy of the Predictive Net Promoter Score model.

### **Predictive evaluations**

Create phrases and categories using the language that agents are callers are most likely to use.

Create phrases and categories that cover a variety of possible phrases that agents could say. Agents typically do not repeat scripts verbatim. Using multiple phrases helps increase the probability that Webex WFO will return a phrase hit.

In addition to creating phrases and categories related to the questions the evaluation form asks, consider creating phrases and categories for the answers that callers are likely to provide. For example, in answer to the question, “Have you had any accidents in the past five years?” callers’ replies are likely to be something like, “No, I haven’t had any accidents” or “Yeah, I’ve had one accident.” If the agent deviates significantly from the script, the caller’s answer might help Webex WFO to recognize a phrase hit.

If you need to revise the evaluation form that Webex WFO is using to create a Predictive Evaluation Score model, create a new form instead of editing the existing form. If the evaluation form is changed and the form’s ID remains the same, the model will not update to account for the change. As a result, the predicted scores will be less accurate. See [Manage evaluation forms](#).

Calibrate your evaluators using the evaluation forms that are used for predictive scores. The Predictive Evaluation Score model will become more accurate over time if the data that it is based on is accurate and consistent. For example, if there is a 10% to 15% difference in your manual evaluation scores, your predictive evaluation scores will have an even larger difference. See [Calibrate evaluators](#).

In many contact centers, it's common for a contact to earn either a very high score or a very low score. However, a lack of mid-range scores can result in less accurate predictions because the model doesn't have enough information to learn what a mid-range contact looks like. Coach your evaluators to give mid-range scores whenever they are appropriate instead of scoring a contact either very high or very low.

For a contact to receive a predictive evaluation score, it must be processed with a QM workflow that assigns an evaluation form either before or at the same time as it uploads the audio. If a contact's audio is uploaded to Webex WFO before the contact receives an evaluation form, you must use ad-hoc Predictive Evaluation Score tasks to generate a predictive scores for this contact. See [Create Analytics tasks](#).

### **Differences between predictive scores and manual scores**

If you see significant differences between predictive scores and scores given by human evaluators, the cause might be one of two issues.

#### **Differences among human evaluators**

Because the Predictive Evaluation Score model uses scores from human evaluators to learn over time, inconsistencies in scores among evaluators can confuse the model. To correct this inconsistency, we recommend the following:

- As an organization, decide what amount of variation among human evaluators is acceptable. Keep in mind that the Predictive Evaluation model will vary more.
- Calibrate your evaluators regularly to maintain consistency in scoring.
- Check to see that categories and phrases align with evaluation questions. Look for commonly occurring false positives or negatives and adjust as needed.

#### **Differences in calls evaluated**

Webex WFO creates a predictive evaluation score for all calls that are associated with the evaluation form(s) used to create the model(s). If your human evaluators manually evaluate specific kinds of calls instead of random calls, you might see differences in scores because the two groups of calls being compared are different. In other words, you're comparing apples and oranges. Consider these examples:

- You use workflows to select calls with long or short handle times and calls handled by new agents for manual evaluation. These are all different from average calls and are scored differently.
- Your evaluators do not evaluate very long or very short calls. These calls would have very different scores from average calls.
- When there are many calls in the queue, team leaders or supervisors handle calls to reduce hold time. Evaluators do not evaluate calls handled by team leaders or supervisors.

- You recently retrained your agents or your evaluators. Manual scores are different right away in response to the training, but predictive scores might take some time to catch up. To see the impact of the retraining, adjust the date range for the predictive scores to match the date when the retraining took effect.

To accurately compare manual and predictive scores, make sure you are comparing scores for similar dates and call types.

## Related topics

- [Manage metadata fields](#)
- [Add post-call surveys to contacts](#)
- [Configure Analytics](#)
- [Create Analytics tasks](#)
- [Manage evaluation forms](#)
- [Advice for evaluation forms](#)
- [Create and manage phrases and phrase categories \(early access\)](#)
- [Automate QM workflows](#)
- [Calibrate evaluators](#)

## Monitor agents in real time

The Agent Monitoring page lets you listen in on a call and view an agent's screen in real time. Use live monitoring to ensure customer service quality and the agents' proficiency in handling customer contacts and associated tools.

With live audio monitoring, you can hear (but not interact with) any party on a call. With live screen monitoring, you can view an agent's screen activity, whether or not that agent is on a call. You can monitor only one agent at a time.

**NOTE** The Smart Desktop Client - Screen Recording Priority field on the QM Global Settings page lets you set where the screen recording takes place (at the thin client or endpoint/PC) when an agent is logged in to both. (See [Configure QM global settings](#).)

## Prerequisites

- You have the Agent Monitoring permission.
- (for live screen monitoring) You have the Live Screen Monitoring permission.
- (for live audio monitoring) You have the Live Audio Monitoring permission.
- You are using Chrome, Firefox, or Edge Chromium as your browser. Agent monitoring is not supported in Internet Explorer.
- (for live audio monitoring) The agent is currently on a call.
- (for live audio monitoring) Webex WFO records agents' calls through desktop recording (endpoint) or server recording (Cisco BiB or Avaya DMCC). Live audio monitoring is not available if your system uses gateway recording or CCaaS recording solutions where the CCaaS vendor records the audio.
- (for live screen monitoring) Smart Desktop is installed on agent PCs.
- (for NAT environments only) The Webex WFO environment includes a configured STUN/TURN server.
- Ports TCP/UDP 49152–65535 are open in your firewall.

## Page location

Application Management > Global > Monitoring > Agent Monitoring

## Procedures

### Filter the list of agents

- By default, the page displays all connected agents within your scope along with their current status. To more easily locate the agent you want to monitor, use the **Group**, **Team**, and **Agent** drop-down filters to narrow the list of agents.
- Further narrow the list of agents by selecting the **Show only connected users** or **Desktop Client** check boxes.

Check box	What it shows you
Show only connected users	Agents who can be monitored right now. They are either

Check box	What it shows you
	<ul style="list-style-type: none"> <li>▪ Logged in to a computer that has Smart Desktop Capture installed and are connected to the Webex WFO app server <i>or</i></li> <li>▪ Recorded via network recording and associated with a device via the Device Associations page (see <a href="#">Associate phones with agents, recording groups, and recording types</a>)</li> </ul>
Desktop Client	Agents who are logged in to a computer that has Smart Desktop Capture installed.
Live Monitor	This check box is not currently used.

- You can also limit results by choosing the number of past days' data to display.
- Click **Reset** at any time to revert to the default filter settings.

### Monitor an agent's audio

You can hear audio only if the agent is on a call.

**NOTE** Before starting a live audio monitor, always verify that the agent is logged in.

**NOTE** If you use a Cisco phone without a headset, you might need to lift the handset before beginning live audio monitoring.

1. Click the agent's audio monitoring icon . The icon's color indicates the agent's monitoring status.

Color	What it means
Black	<p>The agent can be monitored.</p> <ul style="list-style-type: none"> <li>▪ The agent is configured for desktop recording and has Smart Desktop Client running on their PC with the correct permissions for live audio monitoring.</li> <li>▪ The agent is configured for server recording and is assigned to a monitored device on the Device Associations page (Application Management &gt; QM &gt; QM Configuration &gt; Device Associations).</li> </ul>
Gray	<p>The agent cannot be monitored.</p> <ul style="list-style-type: none"> <li>▪ The agent is configured for desktop recording but is not logged in, does not have Smart Desktop Client running on their PC, or does not have the correct permissions for live monitoring.</li> <li>▪ The agent is configured for server recording and is offline or not assigned to a monitored device on the Device Associations page (Application Management &gt; QM &gt; QM Configuration &gt; Device Associations).</li> </ul>
Green	The agent is being monitored.
Blinking yellow	The agent is available but for some reason cannot be monitored.
Red	There is a connection error, and the agent cannot be monitored.

Webex WFO does not track or provide call control for the session, but you can transfer the call to another device as you would a normal call.

2. To end the monitoring session, click the audio monitoring icon again.

## Monitor an agent's screen

1. Click the agent's screen monitoring icon  to open the live screen monitoring window. The icon's color indicates the agent's monitoring status.

Color	What it means
Black	The agent can be monitored. They have Smart Desktop Client running on their PC with the correct permissions.
Gray	The agent cannot be monitored. They are offline or do not have correct permissions.

2. Click **Screen** to start the monitoring session. Click **Audio** to monitor the agent's call.
  - If the agent locks their screen, the progress bar at the bottom of the window displays the pause icon.
  - If the agent's PC goes into sleep mode, the window stops displaying activity.
  - Monitoring does not automatically resume when the agent logs back into their PC. To resume monitoring when the agent is logged back in, close the current window and reconnect.
3. To end monitoring, click **Disconnect**.

### Export agent monitoring data

- Click **Export** to export all the agent monitoring data displayed on the page in CSV format. The export file is named **agents.csv**.

### Related topics

- [Associate phones with agents, recording groups, and recording types](#)
- [Configure QM global settings](#)

## Create a contact

If your agents interact with customers in other ways besides over the phone, you can still evaluate their non-call activities by manually creating a contact.

Examples of non-call activities include:

- Monitoring an agent's screen
- Performing customer service counter work
- Chatting

- Emailing
- Interacting on social media

An evaluator can assign an evaluation form, evaluate the contact, and insert contact metadata.

If you plan to evaluate a manually created contact, we recommend that you also use an evaluation form that is specifically created for non-call activities. This allows Dashboard and Reports to accurately report non-call activities. For more information about configuring evaluations, see [Advice for evaluation forms](#).

### To create a contact:

1. Click the **List options** icon.
2. Click **Create Contact**.
3. Enter or select the date and time that the contact occurred. The default is today's date.

**NOTE** The same user cannot be associated with multiple manually created contacts that occur simultaneously.

4. Select a team, agent, and evaluation form.
5. Click **Create**.



# Analyze interactions, people, and processes

Analyzing interactions, people, and processes entails the following:

- Collect and process data with analytics tasks.
- Organize data from phonetics, automated desktop actions, and Smart Desktop event triggers.
- View data in dashboards on the Analytics page.

## Create Analytics tasks

Use the Task Manager page to collect and process data with analytics tasks. These tasks run analytics processing on current or previously captured data. This data can include audio recordings, email text, and desktop and event data. Webex WFO puts the processed data in a searchable database.

Analytics tasks can be ongoing (run whenever new data comes into the system) or ad hoc (run once at a scheduled time and date).

When scheduling analytics tasks, remember the following points.

- If a speech or speech-to-text task fails, Webex WFO will retry at a later time to complete the task.
- The time zone in Task Manager is your organization's default time zone.

## Prerequisites

- You have the Administer Analytics permission.
- To create a task, you have scope over at least one group. If you have scope only for a team and not the group the team belongs to, you cannot create a task for that team.
- Phrases and phrase categories have been configured on the Phrase Manager page.
- Applications and websites have been configured on the Desktop Manager page.
- Application and website fields have been configured on the Field Manager page.

## Page location

Application Management > Analytics > Task Manager

## Procedures

### Create a new task

1. Click **Create Task**.
2. Enter a unique name for the task in the **Task Name** field.
3. Select the type of task you want to create from the **Type** field drop-down list. The fields that display are determined by the type of task you select.

### Desktop Analytics

This task processes uploaded desktop analytics data and merges that information with the agents' audio and screen recording data.

### Phonetics Analytics

This task processes new audio recordings by searching for predefined phrases (which you configure on the Phrase Manager page) and stores the results in a searchable database.

Speech	Select the language associated with the task. The language you choose determines what appears in the list of available phrase categories.
Index Tag	Select an existing index tag or create a new index tag for the task.
Data	<p>(Optional, used only for speech analytics and speech-to-text) Select the metadata field configured in QM on the Metadata Manager page that is used to pass speech language information to Analytics.</p> <p>Webex WFO uses the data field and data value to group calls for speech-related processing in multilingual contact centers where agents might speak different languages, for example, English on one call and Spanish on another call. The agent applies the metadata tag to the call to indicate the language used in the call.</p> <p>If you select a data field, you must also enter a data value. The Data Value field cannot be empty.</p>
Phrase Categories	Assign phrase categories to the task. Only categories associated with the language you select in the Speech section are available.

## Predictive Evaluation Score

This task uses machine learning models to predict a contact's evaluation score.

**NOTE** Predictive Evaluation Score tasks can be run only on audio contacts. Other types of contacts do not support predictive evaluation scores.

## Predictive Net Promoter Score

This task uses machine learning models to predict a contact's net promoter score.

**NOTE** Predictive Net Promoter Score tasks can be run only on audio contacts. Other types of contacts do not support predictive net promoter scores.

## Speech to Text (Transcription)

This task transcribes audio recordings and then searches the text for predefined phrases (which you configure on the Phrase Manager page) and stores the results in a searchable database.

Speech	Select the language associated with the task. The language you choose determines what appears in the list of available phrase categories.
Index Tag	This option is not currently used.
Percentage	Select the approximate percentage of calls to be transcribed from the Percentage field drop-down list. Webex WFO gives each call the specified chance to be transcribed rather than transcribing a percentage of the total calls received over a set time period. This results in a representative sample of the calls transcribed as the calls come in. There will be some deviation from the percentage, but that deviation becomes less significant over time.
Transcription Filters	(optional) Configure the conditions that must be met for the call to be transcribed. Each condition can be used in only one filter. Click <b>Add Condition</b> to see a list of the conditions available. Depending on which condition you choose, additional fields for an operand and a value or a time range appear.

**NOTE** If you use this optional section, calls that do not

meet the filter conditions are not transcribed.

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Phrase Categories	Assign phrase categories to the task. Only categories associated with the language you select in the Speech section are available.
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## Text Analytics

This task processes captured email or chat text for predefined phrases (which you configure on the Phrase Manager page) in a searchable database.

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Index Tag	Select an existing index tag or create a new index tag for the task.
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Phrase Categories	Assign phrase categories to the task.
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- (For all types of tasks) In the **Time**, configure when the task should run and the date range of the data to run the task against.

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<b>Ongoing</b> check box	Select this check box if you want the task to run whenever new data comes into the system. This disables the time, date, and range fields.
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Start Time	Enter the start time of the task. This time must be in the future. It cannot be the current time.
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Task Start Date	Enter the start date of the task. This date can be today's date or a future date.
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Range Start Date	Enter the start date of the range of data you want the task to process. This date must be in the past by at least one day. It cannot be today's date.
------------------	---

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Range End Date	Enter the end date of the range of data you want the task to process. This date must be later than the start date but cannot be today's date.
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- (For all types of tasks) In the **Organization** section, assign groups and teams to the task. Only groups and tasks within your scope are available.

- Click **Save**.

**NOTE** For ad hoc Text Analytics tasks that process more than 200 contacts, it might take a few minutes for the full number of **Processed**, **Failed**, and **Skipped** contacts to appear, even after the task **Status** is **Finished**.

**NOTE** The instructions in the procedures below apply to the new version of the Task Manager page. If you are using the classic Task Manager page, some of the steps are slightly different.

### Filter existing tasks

1. Click **Filters** (the funnel icon, upper-left corner of the page). The **Filters** panel opens.
2. Configure your search criteria.
3. Click **Apply**.

### Show or hide columns

1. Click **Show/Hide columns** (the gear icon, upper-left corner of the page). The **Show/Hide columns** window opens.
2. Select or clear the check boxes as desired.
3. Click **Apply**.

### Edit an existing task

**NOTE** You cannot edit a task once processing has started.

1. Hover over the task and click **Edit** (the pencil icon). The task page opens.
2. Edit the task as desired.
3. Click **Save**.

### Cancel a task in progress

You can cancel a task only if its **Status** is **Running**. Tasks with other statuses cannot be canceled.

1. Hover over the task and click **Edit** (the pencil icon). The task page opens.
2. In the **Task Status** section, click **Cancel**. A confirmation window opens.
3. Click **Yes**.

### Delete a task

**NOTE** Ad hoc tasks cannot be deleted after they have run. This restriction maintains historical data and an audit trail.

1. Hover over the task and click **Delete** (the trash can icon). A warning window opens.
2. Click **Delete**. The warning window closes.

## Related topics

- [Advice for Analytics tasks](#)
- [Create and manage phrases and phrase categories \(early access\)](#)—Using the Phrase Manager
- [Configure automated desktop actions](#)—Using the Desktop Manager
- [Set up Smart Desktop event triggers](#)—Using the Field Manager
- [Configure Analytics](#)

## Advice for Analytics tasks

### Email and chat text

You can set up an ongoing Text Analytics task to analyze emails for predefined phrase hits. If no ongoing task is configured, then all emails are still indexed and saved as email contacts. You can process those emails as ad hoc tasks.

You must set up a Text Analytics task to analyze emails or chats for predefined phrase hits. If no task is configured, here is what happens when text is imported:

- The text is not analyzed in Analytics.
- The interaction is still available on the Recordings page.
- Sentiment is not analyzed on the Recordings page.

**NOTE** If Webex WFO detects a generic email address that is not associated with an agent during an email import to the Mail server, Webex WFO creates a new user and associates the user with that email address. This user then appears on the user list and adds a user to the user count.

### Languages and teams

For a complete list of supported languages in Webex WFO, consult “Localization” in the *Webex WFO Installation Guide*.

**IMPORTANT** Languages require server configuration. Before using a language in a task, make sure your system administrator has configured the language.

When you run a speech task, results are based exclusively on the selected language. There is an implied relationship between teams and languages. For example, if you choose French from the Language drop-down list when configuring a task, the task processes all calls in French for the selected teams. Any secondary language spoken during those calls produces bad results.

### BEST PRACTICE

If your contact center supports multiple languages, we recommend that each team be associated with a specific language.

It is not unusual for one or more agents in a team to be bilingual. In that case, bilingual agents switch between languages during a call or from one call to another. If agents on a team are known to use a secondary language during a call, create a metadata tag using the Metadata Manager page (Application Management > QM > QM Configuration > Metadata Manager) and assign the possible language values to a metadata tag. When an agent uses a secondary language during a call, the agent can assign that metadata tag to identify the language used. You can then run a task to search for all calls associated with the team that are tagged with that specific language metadata tag.

### EXAMPLE

Agent A is on the Sales team and speaks French as a primary language and English as a secondary language. When Agent A switches to English for a call, she tags the call with a metadata tag called **VoiceLanguage** and a value of **English**.

To analyze Agent A's English language calls, you create a Phonetics Analytics task configured with the following settings:

- Language: English
- Data: VoiceLanguage
- Data Value: English
- Team: Sales

If you select French in the Language field and enter French in the Data Value field, the task will not yield any results.

## Language transcription for gateway recording

Gateway recording creates a root recording for the whole call from beginning to end. If the call is transferred, this root recording has multiple segments, one for the initial call and another for the transfer. (If a call is transferred multiple times, each transfer is a separate segment.)

When this recording is reconciled, Webex WFO transcribes the call using the language of the last segment, which is the language associated with the last segment's speech-to-text task. A speech-to-text task can be associated with only one language. If the people on the call speak a different language after the call is transferred, Webex WFO will still try to transcribe the call in the language used in the last segment.

**EXAMPLE** The agent and caller speak English for the first call segment, which is associated with an English speech-to-text task. The agent transfers the caller to a Spanish-speaking agent. This second segment is associated with a Spanish speech-to-text task. Webex WFO transcribes both segments of this call in Spanish after the recording is reconciled.

If a call segment is not associated with a speech-to-text task, Webex WFO will not transcribe the segment. If the last segment of a call is not associated with a speech-to-text task, Webex WFO will not transcribe the call.

**EXAMPLE** The agent and caller speak English for the first call segment, which is associated with an English speech-to-text task. The agent transfers the caller to a Spanish-speaking agent. This second segment is not associated with a speech-to-text task. Webex WFO does not transcribe the call.

## Organize Data

Organizing data entails the following:

- Create, manage, import, and export the phrase lists used in speech and text analytics tasks.
- Configure Webex WFO to perform various actions automatically when a user opens or interacts with a Windows application or website.
- Configure fields associated with websites that have been marked for use in Smart Desktop.

### Create and manage phrases and phrase categories (classic)

**NOTE** This information covers the classic version of the Phrase Manager page. For information about the new version of this page see [Create and manage phrases and phrase categories \(early access\)](#)

Use the Phrase Manager page to create, manage, import, and export the phrase lists used in speech and text analytics tasks.

A **phrase** is a group of one or more words that can be searched for as a single grammatical unit in audio and text tasks. When you provide a phrase that is important to your business, Webex WFO analyzes the speech in

audio recordings, the text in emails, and the transcriptions of audio recordings for the phrase. It uses fuzzy logic to look for words that are similar to the words that make up the phrase. This means you will not always find an exact match to the phrase you enter even though there are contacts returned.

A **category** is a collection of phrases that you organize together because they have a similar business purpose or language. Analytics tasks can use multiple categories in their processing. Groups of phrases indicating particular intentions, such as “Happy Customer,” can be used and shared among tasks for different groups of agents. Categories are also used to contain phrases in a specific language. You can create a “Happy Customer—English” category for agents who speak English and “Client heureux—français” for agents who speak French.

## Prerequisites

- Administer Text Analytics permission
- Administer Speech Analytics permission

## Page location

Application Management > Analytics > Analytics > Phrase Manager

## Procedures

### Filter existing categories and phrases

1. Click the **Filters** button at the top left of the category/phrase list to open the **Filter Panel**.
2. Select search criteria from the drop-down lists available in the panel to assist you in finding specific categories and phrases. The categories and phrases list updates as soon as you select a filter.

### Add a new phrase

1. Click the **Add Phrase** button at the top right of the Phrase Manager page to display a phrase configuration page.
2. Enter the phrase in the **Phrase** field.

For text analytics:

Ensure each word and phrase in a category is unique. Phrases that share common words can result in multiple hits in the same text. For

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example, **ambulance** and **ambulance service** would return overlapping hits.

Add commonly misspelled words. A phrase might be missed when the text is analyzed because of a spelling error. For example, include **their**, **they're**, and **there**.

For speech analytics: Use longer phrases. More syllables generate more accurate hits.

Spell out every word and number. For example, **street** instead of **st**, and **one thousand** instead of **1000**.

3. Select the appropriate category from the **Category** drop-down list.
4. Select the **Enabled** check box to activate the phrase in Analytics.
5. (Speech analytics only) Enter the confidence level from 1–100 in the **Confidence** field. This value is the minimum threshold that must be met in order for Webex WFO to store a detected phrase hit. When a phrase is detected in a search, Webex WFO includes the level of confidence that the hit is accurate. The higher the confidence level, the more likely the hit is accurate. If you set the confidence level to 40, more hits will be stored, but they might include more inaccurate ones. If you set the confidence level to 90, there will be fewer hits stored, but they will likely be more accurate ones.
6. (Optional, speech analytics only) Enter the phonetic spelling of a phrase in the **Phonetic** field. When you click in the field a phonetics keyboard displays. Click the keys that represent the sounds in the phrase.

**NOTE** Phonetics keyboards are available only for languages that support phonetics.

7. (Optional, speech analytics only) Webex WFO uses standard pronunciation to locate a phrase in a recording. If there is a non-standard pronunciation of the phrase, enter that pronunciation in the **Sounds Like** field, spelling it like it sounds.

**EXAMPLE**

Word	Std pronunciation	Non-std pronunciation
defense	diffence	deefence

Word	Std pronunciation	Non-std pronunciation
caramel	karamel	karmull
kilometer	killommitter	killohmeeter

**NOTE**

Speech analytics searches for a phrase use pronunciation information you provide in the following order:

1. Phonetic field entry
2. Sounds Like field entry
3. Phrase field entry (actual spelling)

8. Click **Save**.

**Add a new category**

1. Click the **Add Category** button at the top right of the Phrase Manager page to display a category configuration page.
2. Enter a unique name for the new category in the **Category** field.
3. (Optional) Enter a description of the category in the **Description** field.
4. Select the language associated with the category from the **Language** drop-down list.

**IMPORTANT** If this category will include text analytics phrases, you must select **English (US)**, even if the phrases are intended for a language other than US English.

5. Click **Save**.

**Edit an existing category or phrase**

1. Locate the item you want to edit in the category/phrase list. Use filters to narrow down the list if desired.
2. Display the category or phrase configuration page.
  - Category: Click the pencil icon at the right end of its listing.
  - Phrase: Double-click the phrase's listing.

3. Edit the configuration page as desired.
4. Click **Save**.

### Delete an existing phrase

1. Locate the phrase you want to delete in the category/phrase list. Use filters to narrow down the list if desired.
2. Double-click the phrase listing to display the phrase's configuration page.
3. Click **Delete**.

**NOTE** A phrase cannot be deleted until any contacts that contain hits for that phrase as a result of a search have reached the end of their data retention period. Only when there are no more contacts with that phrase hit can the phrase be deleted.

### Delete an existing category

1. Locate the category you want to delete in the category/phrase list. Use filters to narrow down the list if desired.
2. Click the pencil icon at the right end of the category listing.
3. Click **Delete**.

**NOTE** A category cannot be deleted if it still has phrases associated with it.

### Import and export categories and phrases

The Import feature enables you to import new categories and phrases and update existing categories and phrases to Webex WFO. The data must be in a CSV file, and follow the format detailed in the [table below](#). If there is a format error, the import will fail.

When creating the import file, note that a phrase can exist in only one category. If you try to import Phrase A to Category B, but Phrase A already exists in Category A, it will not be added to Category B.

The Export feature enables you to export all Phrase Manager data to a CSV file.

### Import categories and phrases

1. Click the **Actions** button at the top right of the Phrase Manager page and select **Import** from the drop-down list.
2. Navigate to the CSV file and then click **Open** to import the data.

CSV files for import must include the columns listed in this table, in the order shown (top to bottom = order left to right in the file).

Column	Description
Category	(required) The name of the category.
Phrase	(required) The phrase text.
Phonetic	(optional, for Speech Analytics only) The phonetic transcription of the phrase. Fields for this column can be empty.
Soundslike	(optional, for Speech Analytics only) The non-standard pronunciation of the phrase, spelled as it sounds. Fields for this column can be empty.
Confidence	(required) The minimum confidence level for a hit.
State	(required) <b>0</b> (zero) if the phrase is disabled for Analytics, or <b>1</b> if the phrase is enabled for Analytics.
LanguageID	(required) The 2-character language code and 2-character country code for the phrase, in the format <b>nn-nn</b> .

**EXAMPLE** en-us = US English.

## Export categories and phrases

1. Click the **Actions** button at the top right of the Phrase Manager page and select **Export** from the drop-down list.
2. Choose to either open the export file or save it to your local drive. By default the export file is named **phrases.csv**.

## Create and manage phrases and phrase categories (early access)

**NOTE** This information covers the new version of the Phrase Manager page. For information about the classic version of this page, see [Create and manage phrases and phrase categories \(classic\)](#)

Use the Phrase Manager page to create, manage, import, and export the phrases for phonetics, speech-to-text, and text analytics tasks.

A **phrase** is a group of one or more words that Webex WFO searches for as a single grammatical unit in audio and text tasks. When you enter a phrase that is important to your business, Webex WFO analyzes the speech in audio recordings, the text in emails, and the transcriptions of audio recordings for the phrase. It uses fuzzy logic to look for words that are similar to the words that make up the phrase. This means you will not always find an exact match to the phrase you enter even though Webex WFO returns contacts that match the search. Utterances or text within a contact that Webex WFO detects as matches to a phrase are called “phrase hits.”

A **category** is a collection of phrases that you organize together because they have a similar business purpose or language. Analytics tasks can use multiple categories in their processing. Groups of phrases indicating particular intentions, such as “Happy Customer,” can be used and shared among tasks for different groups of agents. Categories are also used to contain phrases in a specific language. You can create a “Happy Customer—English” category for agents who speak English and “Client heureux—français” for agents who speak French.

## Prerequisites

You have at least one of these permissions:

- Administer Speech Analytics
- Administer Speech-to-Text Analytics
- Administer Text Analytics

## Page location

Application Management > Analytics > Phrase Manager

## Procedures

### Filter existing phrases

1. Click **Filters** (the funnel icon, upper left corner of the page). The **Filters** panel opens.
2. Select search criteria from the drop-down lists to find specific categories and phrases.
3. Click **Filter**.

## Customize the columns

1. Click **Show/Hide columns** (the gear icon, upper left corner of the page). The **Show/Hide columns** window opens.
2. Click the toggles to show or hide columns as desired.
3. Click **Apply**. Webex WFO will remember your customization the next time you return to this page.

## Add a new phrase

1. Click + **Phrase**. The **Add Phrase** window opens.
2. Enter the phrase in the **Phrase** field.

For text analytics:

Each word and phrase in a category must be unique. Phrases that share common words can result in multiple hits in the same text. For example, “ambulance” and “ambulance service” would return overlapping hits.

Add commonly misspelled words. A phrase might be missed when the text is analyzed because of a spelling error. For example, include “their,” “they’re,” and “there.”

For phonetics and speech-to-text analytics:

Use longer phrases. More syllables generate more accurate hits.

For phonetics analytics:

Spell out every word and number. For example, enter “street” instead of “st” and “one thousand” instead of “1000.”

3. Select the category from the **Category** drop-down list.

**IMPORTANT** Make sure you select the correct category. You cannot change a phrase’s category after you create the phrase.

4. Click the **Enable** toggle.
5. (Phonetics and speech-to-text analytics only) Enter the confidence level in the **Confidence** field. This is the minimum threshold that must be met in order for Webex WFO to store a detected phrase hit. When Webex WFO detects a phrase in a search, it includes the level of confidence in the hit’s accuracy. The higher the confidence level, the more likely the hit is accurate. If you set the confidence level to 40, Webex WFO will find more hits, but they might include more inaccurate

ones. If you set the confidence level to 90, Webex WFO will find fewer hits, but they will likely be more accurate ones.

6. (Optional, phonetics analytics only) Enter the phonetic spelling of a phrase in the **Phonetic** field.
7. (Optional, phonetics analytics only) Webex WFO uses standard pronunciation to locate a phrase in a recording. If there is a non-standard pronunciation of the phrase, enter that pronunciation in the **Sounds Like** field, spelling it like it sounds.

#### EXAMPLE

Word	Standard pronunciation	Non-standard pronunciation
defense	diffence	deefence
caramel	karamel	karmull
kilometer	killommitter	killohmeeter

#### NOTE

Phrase searches use pronunciation information in the following order:

1. **Phonetic** field entry
2. **Sounds Like** field entry
3. **Phrase** field entry (actual spelling)

8. Click **Save**.

### Add a new category

1. Click **Manage Categories**. The **Manage Phrase Categories** window opens.
2. Click + **Category**. The **Add Category** window opens.
3. Enter a unique name for the new category in the **Category Name** field.
4. (Optional) Enter a description of the category in the **Description** field.
5. Select the language associated with the category from the **Language** drop-down list.
6. Click **Save**.

## Edit a phrase

**NOTE** You cannot edit a phrase's wording if it already has hits. To correct the wording of a phrase, [disable the phrase](#) and [add a new phrase](#) with the correct wording.

1. Double-click the phrase. The **Edit Phrase** window opens.
2. Edit the phrase as needed.
3. Click **Save**.

## Edit a category

1. Click **Manage Categories**. The **Manage Phrase Categories** window opens.
2. Click the pencil icon next to the category. The **Edit Category** window opens.
3. Edit the category as desired.
4. Click **Save**.

## Enable or disable a phrase

When a phrase is disabled, Webex WFO does not search for it as part of an analytics task.

- Click the **Enable/Disable** toggle next to the phrase.

## Enable multiple phrases

1. Select the phrases to enable.
2. Click **Bulk Actions**.
3. Select **Enable** from the drop-down list.

## Disable multiple phrases

1. Select the phrases to disable.
2. Click **Bulk Actions**.
3. Select **Disable** from the drop-down list.

## Delete a phrase

- Hover over the phrase and click **Delete** (the garbage can icon).

## Delete multiple phrases

1. Select the phrases to delete.
2. Click **Bulk Actions**.

3. Select **Delete** from the drop-down list.

### Delete a category

You can delete categories that do not have any associated phrases. Categories that contain phrases cannot be deleted. To delete a category that contains phrases, first [delete the phrases](#).

1. Click **Manage Categories**. The **Manage Phrase Categories** window opens.
2. Click the garbage can icon next to the category.
3. Click **Cancel** to close the **Manage Phrase Categories** window.

### Import phrases and categories

You can add or update multiple phrases and categories with a CSV import. The data in the CSV must follow the format detailed in the [table below](#) (top to bottom = order left to right in the file). If there is a format error, the import will fail.

**NOTE** A phrase can exist in only one category. If you try to import Phrase A to Category B, but Phrase A already exists in Category C, the phrase will not be added to Category B.

1. Click the options icon (three vertical dots, upper-left corner of the page).
2. Select **Import Phrases & Categories**.
3. Navigate to the CSV file and click **Open**.

Column	Description
Category	The name of the category.
Phrase	The phrase text.
Phonetic	(optional, phonetics analytics only) The phonetic transcription of the phrase. Fields for this column can be empty.
Soundlike	(optional, phonetics analytics only) The non-standard pronunciation of the phrase, spelled as it sounds. Fields for this column can be empty.
Confidence	(phonetics and speech-to-text analytics only) The minimum confidence level for a hit.
State	<b>0</b> (zero) if the phrase is disabled, or <b>1</b> if the phrase is enabled.
LanguageID	The 2-character language code and 2-character country code for the

Column	Description
--------	-------------

phrase, in the format **nn-nn**.

**EXAMPLE** **en-us** = US English.

## Export categories and phrases

You can export all Phrase Manager data to a CSV file.

1. Click the options icon (three vertical dots, upper left corner of the page).
2. Select **Export Phrases & Categories** from the drop-down list. The **phrases.csv** file downloads to your device.

## Related topics

- [Create Analytics tasks](#)—Configure Webex WFO processes that search audio and text contacts for phrases.
- [View phrase analytics for an interaction](#)—View a single contact’s phrase hits on the Recordings page.
- [Data Explorer Quick Start Guide: Build a Phrase Analytics Report](#)—A step-by-step guide to create a graph of phrase hits over time.

## Configure automated desktop actions

Use the Desktop Manager page to configure Webex WFO to perform various actions automatically when a user opens or interacts with a Windows application or website. These configured automated actions are called **desktop item events**.

**EXAMPLE** To prevent recordings from capturing sensitive data, you want Webex WFO to pause the recording when an agent clicks in the Credit Card Number field in your order management application and to resume the recording when the agent clicks out of the Credit Card Number field.

You can add the target applications and websites manually or in a batch using the Import function. The Export function allows you to obtain a list of all the applications and websites set up in Desktop Manager.

You can also mark specific applications and websites as “approved” or “not approved” on this page. This enables you to identify agents who are accessing applications and websites that your company has not approved for use.

## Prerequisites

You have an Analytics license and the Administer Desktop Analytics permission.

## Page location

Application Management > Analytics > Analytics > Desktop Manager

## Procedures

- [Create and manage desktop items](#)—Add, edit, and set the status of desktop items; import and export desktop item data; set the status of desktop items, and push updated configurations to Smart Desktop users.
- [Configure desktop item events](#)—Create and edit automated desktop item events.
- [Use the Application Field Marker tool](#)—Obtain the information you need to configure a desktop item event that involves fields in a Windows application.

### Create and manage desktop items

Before you can create an automated desktop item event, you must have a list of the applications and websites those event run against.

## Procedures

### Filter the list of applications and websites

1. Use the **Search** field and the **View** buttons in the toolbar to filter what appears on the Desktop Manager page.
  - Enter any string in the **Search** field to limit the list to applications and websites whose names contain that string.
  - Click the **App** or **Web** buttons to show only applications or websites, or both. A selected button is dark gray. A deselected button is light gray.
  - Click the **Application State** button  to select the states you want to view.
2. Clear the **Search** field and select all buttons to view the entire list of applications and websites.

## Add a new desktop item

1. Click **New Desktop Item**. The **Add New Desktop Item** page opens.
2. Select the type of item you want to add from the What Do You Want to Do? options. Fields appear based on the type of item you select.
3. Complete the fields as described below. This table contains all the possible fields you might see.

Field	Description
Application, Website, or Field Name	Enter a unique and easily identifiable name for the desktop item.
Application File	Enter the executable file name of the Windows application you are adding.  <b>EXAMPLE</b> word.exe
Application or Website Status	Select the status of the application or website from the drop-down list.  <b>NOTE</b> Each time a desktop analytics task finds a new application or website, it assigns the New status to it (see <a href="#">Create Analytics tasks</a> ). When the New status appears, you must change the status to Approved, Not Approved, or Ignore.
URL	Enter the website's URL. Use only the pieces of the URL that do not have slashes (/).  <b>EXAMPLE</b> Yes: www.example.com Yes: www.example.com:1234 No: http://www.example.com No: www.example.com/website
Application Properties	This section is used to define a text field within an application. You must use the Application Field Marker tool to obtain this information. This tool is available on any desktop that has Smart

Field	Description
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Desktop installed. See [Use the Application Field Marker tool](#) to learn how to use the tool and populate the fields in this section.

4. Click **Save**. The fields on the page clear, and you are ready to add another new desktop item. If you are done adding new items, click **Cancel** to return to the Desktop Manager page.

### Edit an existing desktop item

- Click the desktop item in the left pane to view the details of that item in the right pane. Edit as desired and then click **Save**.

### Assign a status to multiple items

1. In the left pane, select the applications and websites whose status you want to change.
2. Select a status from the **Application Status** drop-down list.
3. Click **Save**.

### Import data to Desktop Manager

1. In the **Import** section of the page, navigate to the CSV file you want to import using the **Browse** button.

The CSV file must contain the following columns in order as listed from top to bottom. Every field in a row must contain a value. The CSV generated when you export data follows this format.

**NOTE** Files exported from a pre-11.0 version of Webex WFO contain an additional column, “handleCode.” To import these files into Cloud/11.0 or newer, you must remove that column and associated data from the CSV file.

Column	Description
key	The executable name for an application or the URL for a website.
name	The name of the application or website.
status	The status of the application or website.
type	The type of desktop item: application, content (website), or system.

2. Click **Import**.

## Export information from Desktop Manager

- In the Export section, click **Export** to save or open the file. By default, the export file is named **desktopuse.csv**.

**NOTE** Exported files contain only the applications that have been acted upon. Not all applications in the Desktop Manager application list appear in the exported file.

## Push updated application and website configurations to user desktops

- Click the **Push Configuration** button  to push any changes made to applications or websites in Desktop Manager to your user's desktops.

## Import and export application information

You can import and export new or edited application information to Desktop Manager in CSV format.

### To import information to Desktop Manager:

1. In the Import section of the page, navigate to the CSV file you want to import using the Browse button.
2. Click **Import**.

### To export information from Desktop Manager:

- In the Export section, click **Export** to save or open the file. The export file is named desktopuse.csv.

**NOTE** Exported files contain only the applications that have been acted upon. Not all applications in the Desktop Manager application list will appear in the exported file.

Any CSV file to be imported must include the columns listed in the following table in order as listed from top to bottom. Every field in a row must contain a value. Exported CSV files are formatted in the same way.

**NOTE** Files exported from a pre-11.0 version contain an additional column, "handleCode." These files cannot be imported into 11.0 or newer unless that column and associated data are removed from the CSV file.

Column	Description
key	The executable name for an application or the URL for a website
name	The name of the application or website

Column	Description
status	The status of the application or website.
type	The type of desktop item: application, content (website), or system

### Configure desktop item events

The Desktop Manager Event Configuration page allows you to control how Webex WFO responds when users access websites and applications. You can configure one or more events for any desktop item on the Desktop Manager page. These events are triggered by Smart Desktop on the agent's computer at run time.

An event consists of the following components:

Start trigger	What the user does that starts the system action <b>The agent clicks in the Credit Card Number field.</b>
System action	What Smart Desktop does when the Start Trigger happens <b>Smart Desktop stops audio and screen recording.</b>
Action duration	How long before a stop action happens automatically instead of by a stop trigger <b>Smart Desktop restarts audio and screen recording one minute after the agent clicks in the Credit Card Number field.</b>
Stop trigger	(optional) What the user does that stops the system action <b>The agent clicks out of the Credit Card Number field.</b>
Stop action	(optional) What Smart Desktop does when the Stop Trigger happens <b>Smart Desktop restarts audio and screen recording.</b>

When you play back a call associated with an event in the Media Player, the event is highlighted in yellow in the Media Player's Desktop panel and in Agent Explorer.

Smart Desktop does not track new or updated desktop events until one of the following happens:

- A user logs in or out of Smart Desktop.
- You click **Push Configuration** on the Desktop Manager page.
- A daily refresh occurs (by default, a random time between 4:00 and 4:30 AM).

## Page location

Application Management > Analytics > Desktop Manager > Add Event

## Procedures

### Create a new desktop item event

1. On the Desktop Manager page, select the desktop item to which you want to add an event.
2. Click **Add Event** to open the Desktop Manager Event Configuration page.
3. Select **Create a new event**.
4. (For applications only) In the **Event Type** section, choose the type of event you want to create.
  - Desktop event—The start trigger for the event is something that a user does in an application.
  - Automated event—The start trigger for the event is an RTP signal that Webex WFO automatically detects. For more information about RTP signaling, see [Configure QM global settings](#).
5. In the **Event Name** field, enter a name that clearly identifies the event.
 

**IMPORTANT** Each event in Desktop Manager must have a unique name.
6. In the **Start Event Trigger** drop-down list, select the trigger that initiates the event. The triggers listed vary based on whether the desktop item is an application or a website.

#### Application (desktop event)

Trigger	Description
Program gets focus	The application window or dialog box has the keyboard focus.
Program loses focus	The keyboard focus ends for the application window or dialog box.
Create	A window or dialog box for the application is created. You can use Create to indicate when an application is started if you specify the top-level window title as the window text.
Destroy	A window or dialog box is destroyed. You can use Destroy to indicate when an application is closed if you specify the top-level

Trigger	Description
	window title as the window text. If multiple instances of the same application are running, closing one instance will generate this event, but the other instances will continue running.
Click on text field	The user performs an action that gives keyboard focus to a text field in the application.
Click out of text field	The user performs an action that removes the keyboard focus for a text field in the application.
Button click	The user clicks a button in the application.
Title change	The title of the window changes.

**Application (automated event)**

Trigger	Description
RTP call starts	Webex WFO detects an inbound or outbound RTP signal.
RTP call stops	Webex WFO no longer detects an inbound or outbound RTP signal.

**Website**

Trigger	Description
Click on text field	The user performs an action that gives keyboard focus to a text field on a web page.
Click out of text field	The user performs an action that removes the keyboard focus for a text field on a web page.
Request website	The user navigates to the URL specified in the trigger details.
Page makes background request	The URL specified in the trigger details sends an XHR.

7. In the **Start Trigger Details** section, enter the details that define which applications or websites set off the start trigger.

**Application**

Item	Description
Window title	<p>The name of the window or dialog box associated with the event.</p> <p><b>NOTE</b> This field is not case sensitive. However, the text must match the name of the window or dialog box for the event trigger to succeed.</p> <p><b>NOTE</b> We recommend that you do not specify a window that contains variable text.</p> <p><b>NOTE</b> If you leave this field blank, any window in the associated application can trigger the event unless the trigger is a title change. For title change triggers, this field must contain text.</p>
Button	<p>The name of the button associated with the event.</p> <p><b>NOTE</b> Users must use their mouse to click the button to trigger an event. Webex WFO does not recognize the trigger if a user uses a key on their keyboard. For example, a user must click the Save button, not use the key combination Ctrl+S.</p>
Field	<p>The field that triggers the system action when a user clicks on or out of it. The field must be configured in the Field Manager (see <a href="#">Set up Smart Desktop event triggers</a>). Used with the “Click on text field” and “Click out of text field” triggers only.</p>

**Website**

Item	Description
URL	<p>The path for the website that is associated with the event. Enter the part of the URL that comes after the hostname.</p> <p><b>EXAMPLE</b> If the website’s full URL is <a href="http://www.example.com/website/page">http://www.example.com/website/page</a>, enter</p>

Item	Description
	<p>/website/page.</p> <p><b>BEST PRACTICE</b> Always enter the resolved address of the website.</p> <p>Users frequently use shortcuts when entering a URL in their browser’s address field. The browser uses DNS or some other service to resolve the address and will display the resolved address in the address field (the address includes the omitted “www” or “http,” for example).</p> <p><b>NOTE</b> When you enter the resolved address in this field, Webex WFO automatically triggers an event when a user enters a shortcut for the resolved address.</p> <p>If an agent accesses a website and the page for that website is cached, then no request goes through Smart Desktop. In this instance, Webex WFO cannot hit any triggers for the website and will not display the website’s URL.</p>
Field	<p>The field that triggers the system action when a user clicks on or out of it. The field must be configured in the Field Manager (see <a href="#">Set up Smart Desktop event triggers</a>). Used with the “Click on text field” and “Click out of text field” triggers only.</p>

8. In the **Start System Action** section, click **Add** to add the actions that occur when a start trigger happens. You can configure more than one action for a trigger. When more than one action is used, the actions are treated as operands evaluated with a logical AND. See [Add a system action](#) for how to add actions and descriptions of the actions available.
9. In the **Action Duration** section, enter the length of time (in seconds) before a configured stop action happens automatically instead of by a stop trigger. The maximum duration you can set is 3,600 seconds. If you set a value in this section, you must also configure one or more stop actions.

**NOTE** If you set the duration to zero seconds, the stop action will never happen automatically.

10. (Optional) In the **Stop Event Trigger** drop-down list, select the trigger that ends the event. The triggers listed vary based on whether the desktop item is an application or a website. See Step 6 above for descriptions of the available triggers.
11. If you selected a stop event trigger, you must then configure the **Stop Trigger Details** section. See Step 7 above for descriptions of the details fields.
12. (Optional unless you configured an action duration) In the **Stop System Actions** section, add the actions that occur when a stop trigger happens. You can configure more than one action for a trigger. When more than one action is used, the actions are treated as operands evaluated with a logical AND.
13. Click **Save**. The event is saved, and the fields on the page clear so you are ready to add another event to the desktop item. If you are done adding new events, click **Cancel** to return to the Desktop Manager page.

### Add a system action

1. In the **Start System Actions** or **Stop System Actions** field, select the action you want to occur when a trigger happens. These actions are described in the table below.

Action	Description
Make available in Analytics	Displays the event in Agent Explorer. Webex WFO displays events in Agent Explorer even if you do not select this trigger.
Pause recording	Temporarily halts any audio or screen recording occurring on the agent's desktop. A "Pause recording" system action does not affect Live Screen Monitoring.
Resume recording	Restarts audio and screen recording after a "Pause recording" action.
Access a website	Navigates to the website that you enter in the Start Request URL field.
Scrape metadata	Searches for a field you have marked with the application field marker, then attaches any text in that field as custom metadata to the active call. If no call is active, Webex WFO attaches this metadata to the most recent call.
Add to custom metadata	("Click on text field" and "Click out of text field" triggers only)

Action	Description
	Attaches the text in a field that you designate in the Field section of the Start or Stop Trigger Details as custom metadata to the active call. If no call is active, Webex WFO attaches this metadata to the most recent call.
Start segment	Starts a new recording and deletes any previous portion of the recording. On the Recording Controls page, this action is called Segment and Delete (see <a href="#">Record on demand</a> ).
Stop segment	Starts a new recording and keeps any previous portion of the recording as a separate recording. On the Recording Controls page, this action is called Segment and Save (see <a href="#">Record on demand</a> ).
Associate segment	Starts a new recording and associates it with the previous recording.
Tag contact	Applies the Tagged reason code to the active call. If no call is active, Webex WFO applies this reason code to the most recent call.
Start screen recording	Starts a screen-only recording.
Stop screen recording	Stops a screen-only recording.

- Depending on your action choice, you might need to complete one or more of the other fields. If the field is disabled, it is not required for your chosen action.
  - Windows Field—This drop-down list is populated with fields configured on the [Field Manager](#) page.
  - Metadata Field—This drop-down list is populated with metadata configured on the [Metadata Manager](#) page.
  - Start (or Stop) Request URL—Enter a website URL. Smart Desktop makes a GET request to this URL.
- If you want to add another action, click **Add** and repeat steps 1 and 2.

### Overlapping events

We recommend that you do not configure events that frequently overlap each other. When multiple events do overlap, remember the following points:

- Multiple runs of the same event will not overlap.

**EXAMPLE**

An event named “PCI Compliance” has the following configuration:

- Start Trigger—Agent clicks in the credit card field.
- Start Action—Smart Desktop stops recording.
- Event Duration—Thirty minutes (in seconds)
- Stop Trigger—Agent clicks in the address field.
- Stop Action—Smart Desktop starts recording.

In this event, it is possible for the agent to click in and out of the credit card field several times before clicking in the address field. However, new runs of the PCI Compliance event do not start every time the agent clicks in the credit card field. The PCI Compliance event runs only the first time.

- Each event trigger can be viewed independently. When any event is triggered, the actions associated with the event are performed.
- If more than one event that uses a pause or a resume action is triggered at the same time (that is, they overlap each other), the first start trigger automatically starts the event, the first stop trigger stops all overlapping events, and the following triggers are ignored.

**EXAMPLE** An agent clicks a field that is set as a pause action and then clicks in another field that is also set as a pause action. The second pause action is ignored. Likewise, the pause events that these actions triggered will end the first time the agent clicks a field that is set as a resume action. The second resume action is ignored.

## Related topics

- [Set up Smart Desktop event triggers](#)
- [Manage metadata fields](#)

### Use the Application Field Marker tool

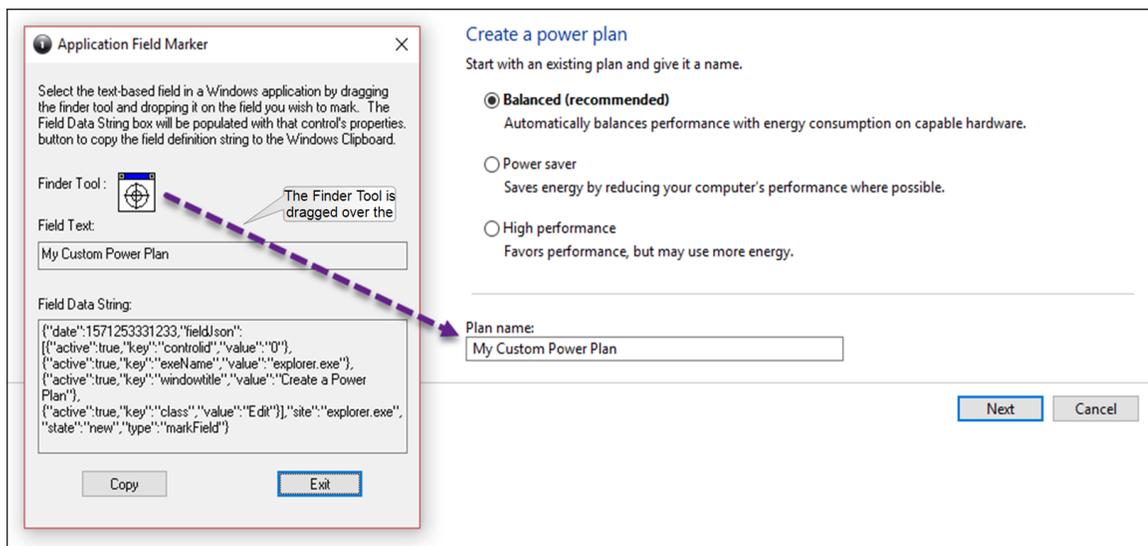
The Application Field Marker tool obtains the information you need to configure the Application Properties section of the New Desktop Item page when the new desktop item is a Windows application and field.

**NOTE** The Application Field Marker tool does not work on website fields. For that you must have your browser correctly configured and use the Ctrl+M shortcut keys. See [Set up Smart Desktop event triggers](#) for more information.

## Procedures

### Use the Application Field Marker tool

1. On your PC, navigate to the location where the Application Field Marker tool executable is located. The default location is:  
  
C:\Program Files (x86)\Webex  
WFO\Desktop\Active\bin\ApplicationFieldMarker.exe
2. Double-click the executable to launch the tool.
3. Open the application that contains the field you want to configure as a desktop item.
4. In the Application Field Marker tool, click the **Finder Tool** and drag the bullseye onto the field in the target application. When the finder is positioned over the field, the field is highlighted with a heavy border.
5. When you release the mouse, the data strings for the field are displayed in the Field Data String pane, as shown in this example.



6. Click **Copy** to copy the text to your computer's clipboard.
7. On the **Add New Desktop Item** page, paste the text in the **Definition String** field.

8. Click **Parse Fields**. The relevant fields from the definition string text are loaded into the fields to the right of the Definition String pane.

## Related topics

- [Create and manage desktop items](#)
- [Set up Smart Desktop event triggers](#)

## Set up Smart Desktop event triggers

The Field Manager page lists fields associated with websites that have been marked for use in Smart Desktop.

**NOTE** The Field Manager page manages only website fields. Windows application fields are managed on the [Desktop Manager](#) page.

Once a field is marked it is listed on the Field Manager page. From there you can configure the field with the strings that you want to match when running desktop events and actions.

The page's left pane displays the website and its associated fields that have been marked. Enabled fields are highlighted in green. When you select a field in the left pane, its settings appear in the right pane.

When a field first appears in the list, its name is the timestamp when it was marked. When you configure the field, you have to option to replace the timestamp with a name of your choosing to help identify it.

## Prerequisites

- You must have Smart Desktop installed.
- Your browser must be configured correctly before you can use the field marking shortcut keys. See [Enable the Desktop Analytics extension in your browser](#) for details.

## Page location

Application Management > Analytics > Analytics > Field Manager

## Procedures

**NOTE** If you delete a field from the Field Manager page that is used in the Desktop Manager page, you must log out of Webex WFO and then log in again for the change to take effect.

## Mark a field on a website

1. With the Field Manager page displayed, open a new tab in your browser.
2. Navigate to the website whose fields you want to mark.
3. Click in the desired field and press **Ctrl+M**. The field appears in the left pane of the Field Manager page with a timestamp in place of a name.

## Filter the list of websites and fields

- Enter a search string in the **Search Fields** field. The list is immediately updated with fields that meet your search criteria. The search does not filter on website names.
- Use the **View** buttons (**All**, **New**, and **Configured**) to limit the list to fields displayed. New fields are those that have not yet been configured.

## Configure a marked field

1. Click the field in the left pane. The right pane displays the field's settings and properties in the right pane.
2. Edit the field settings.
  - The **Website** field contains the URL of the website where the field is located. Click  to open the website in a new browser tab.
  - The **Name** field initially contains the timestamp of when the field was marked. You can replace the timestamp with a name that describes the field for easy identification.
3. Edit the field properties. The properties are the data captured by the field marker and can vary from field to field.
  - Select the **Enabled** check box to enable the searching of strings that match the specified field and value when configured in Desktop Manager. If the check box is not selected, the field is ignored.
  - The **Field** column contains the read-only name of the property associated with the marked field.
  - By default, the **Value** field contains the property's value at the time the field was marked. Any value entered in this field must be a supported value for the property. You can use the asterisk wildcard ( \* ) in this field.
4. Click **Save**.

## Related topics

- [Configure automated desktop actions](#)
- “Installing Webex WFO Smart Desktop” in the *Webex WFO Installation Guide*

### Enable the Desktop Analytics extension in your browser

Smart Desktop must be installed on your computer and activated before you can mark fields. Users who have permission to administer fields for Desktop Analytics using the Field Manager page and on the agents' desktops where Smart Desktop is installed must have the appropriate Desktop Analytics browser plug-in configured for the browser they use.

## Prerequisites

Smart Desktop is installed and activated on your computer.

## Procedures

### Enable the Desktop Analytics extension in Internet Explorer

The Desktop Analytics plugin is automatically installed and enabled when Smart Desktop is installed. No further action is required.

**NOTE** When agents are using Internet Explorer, the Desktop Analytics Plugin/Extension will not capture field-level events on pages that render in document modes before Internet Explorer 8.

### Enable the Desktop Analytics extension in Firefox

The first time you log in to Webex WFO using Firefox, you see a dialog box telling you to install the Calabrio Browser Extension. Select **Allow this installation** and click **Continue**. No further action is required.

### Enable the Desktop Analytics plugin in Microsoft Edge Chromium

In Edge Chromium, go to <https://chrome.google.com/webstore/detail/calabrio-analytics-plugin/hecgknieibccghjmmhhckdfeobjoffdf> and click **Add to Chrome**.

**NOTE** The plugin does not support Internet Explorer compatibility mode.

### Enable the Desktop Analytics plugin in Chrome

Download and install the Calabrio Analytics Plugin, version 0.2.0.2. The plug-in is located at:

<https://chrome.google.com/webstore/detail/calabrio-analytics-plugin/hecgknieibccghjmmhhckdfeobjoffdf>

**NOTE** If clicking the link does not work, copy the URL and paste it into your browser.

## Related topics

“Installing Webex WFO Smart Desktop” in the *Webex WFO Installation Guide*

## About Analytics dashboards

The Analytics page is a dashboard that displays data about your desktop, speech, and text contacts. You can use the default dashboard, another user’s shared dashboard, or your own custom dashboards. Each dashboard’s widgets display data based on your role and the data sets you define. Your access to dashboards depends on your assigned permissions.

If your administrator has configured Analytics to allow dashboard sharing, you can designate any dashboard you create as one that can be shared by other users. Those users can view your dashboard (populated with data that pertains to them) but they cannot edit it. Only you can edit your shared dashboard.

The general process for configuring a dashboard is as follows:

1. Create a new dashboard.
2. Create data sets for the dashboard.
3. Create and add widgets to the dashboard.
4. (Optional) Share your new dashboard with others.

## Prerequisites

- Administer Analytics permission
- Desktop sharing enabled (optional)
- Analytics data collection configured in Application Management on the Task Manager, Phrase Manager, Desktop Manager, Field Manager, and Analytics Configuration pages

## Page location

Analytics

## Procedures

### Select an existing dashboard to view

- Click the **Dashboards** button on the Analytics toolbar and select an existing dashboard from the resulting list.

### Create and work with dashboards

- [Create and manage an Analytics dashboard](#)
- [Create and manage a data set](#)
- [Create and manage an Analytics widget](#)
- [Filter data on the Analytics dashboard](#)
- [Configure predictions](#)
- [Search for words in transcribed audio](#)

## Related topics

[Customize your Analytics dashboard](#)

### Create and manage a data set

Data sets determine what appear in the widgets on the Analytics dashboard. They must be configured before you create a widget.

Data sets are unique to a specific dashboard. When you create a data set for one dashboard, that data set will not appear in any other dashboards.

### Create a new data set

1. On the Analytics toolbar, click **Data Set Manager** and then **Create New Data Set**.

 **NOTE** You might have to click **Unlock** to enable the Data Set Manager button.

2. Select a data source from the Data Source list. [The available data sources are described below.](#)

3. In the Data Set Manager - Create New dialog box, configure the filters for the data source you chose. These filters determine what data appears on your dashboard. There is a different dialog box for each data source, with different data filters. [The available data filters are described below.](#)
4. When you are finished configuring the filters, click **Submit** to see a preview of the data that is included in the new data set. The column headers shown can be truncated. Click **Show All Data** to see all the columns.  
  
If the columns shown are not what you want, click **Back** to return to the previous dialog box and reconfigure the filters.
5. When you are satisfied with the data set, click **Save**.
6. On the toolbar, click **Save**.

### Edit a data set

1. On the Analytics toolbar click **Data Set Manager**.  
 **NOTE** You might have to click **Unlock** to enable the Data Set Manager button.
2. Click **Edit** next to the data set you want to edit.
3. When you are finished editing the data set, click **Submit** to see a preview of the data that is included in the data set. The column headers shown might be truncated. Click **Show All Data** to see all the columns.  
  
If the columns shown are not what you want, click **Back** to return to the previous dialog box and reconfigure the filters.
4. When you are satisfied with the data set, click **Save**.
5. On the Analytics toolbar, click **Save**.

### Delete a data set

1. On the Analytics toolbar, click **Data Set Manager**.  
 **NOTE** You might have to click **Unlock** to enable the Data Set Manager icon.
2. Click **Delete** next to the data set you want to delete, and then confirm the deletion. When you delete a data set, changes on the dashboard are saved immediately.
3. Click **Cancel** to close the Data Set Manager dialog box.

## Data sources

The following table describes the available data sources. You can filter items with an asterisk (\*) using [Data filters](#).

The two primary types of data sets are count data sets and trend data sets.

- Count data sets report the number of times the defined action occurs.
- Trend data sets report how the specified action changes over time.

Data Set	Description
Application Count Application Statistics	Metrics on accessing applications on a user's desktop. Application Statistics displays the access statistics for specific applications.
Application Usage Count Application Usage Trend	Metrics on how many users have used the application. This includes information on the number of users who have used the Webex WFO user interface as well as the number of desktop clients that have connected.
Audit Count Audit Trend	Metrics for audits in your recordings.
Call Summary Count Call Summary Trend	Metrics for your total, missed, and answered calls.
Event Count Event Statistics	Event Count shows aggregation of an event's duration by agent, team, or group. Event Statistics shows the distribution of the average event duration.
Outstanding Uploads Count Outstanding Uploads Trend	Metrics for files that still need to be uploaded. This is a measure of calls that have taken place but the corresponding media files have not yet been uploaded.
Phrase Count* Phrase Trend*	Metrics for phrase usage hits in contacts. This includes phonetic hits only.
Recycling Count Recycling Trend	Metrics for files that are in the recycle bin. Data is collected every five minutes.
Storage Details Count Storage Details Trend	Metrics for files stored on disk. This includes call audio files and screen capture video files, as well as logical groups such as recordings (call audio and screen capture video) as well as total size (all files on disk).

Data Set	Description
Support Count Support Trend	Upload and disk storage metrics for packet capture (PCAP) and log files.
Text Contact Count* Text Contact Trend*	The total number of email and text contacts.
Text Hit Count* Text Hit Trend*	The total number of individual text hits in email and text contacts.
Transcribed Call Count* Transcribed Call Trend*	<p>Metrics for your transcribed contacts.</p> <div style="border-left: 4px solid #0070C0; padding-left: 10px; margin-left: 10px;"> <p><b>NOTE</b></p> <p>The number of calls you see in an Analytics dashboard that uses this data set might vary from the number of calls you see using the Has Transcription criterion in the Contact Content filter on the Recordings page, for a variety of reasons:</p> <ul style="list-style-type: none"> <li>▪ Analytics data and QM data update at different times.</li> <li>▪ Analytics marks a call as transcribed after the call has been indexed, but QM marks a call with Has Transcription if a transcription file for the call is uploaded. Indexing happens after the transcription file is uploaded, so reports of transcribed calls might show a higher number in QM than in Analytics if indexing has not happened yet.</li> <li>▪ Analytics and QM could have different retention policies.</li> </ul> </div>
Upload Details Count Upload Details Trend	Upload metrics for media files broken down by file type. This includes call audio files, screen capture video files, desktop application and website usage files, and email text files.
Upload Summary Count Upload Summary Trend	Upload metrics for media files aggregated into logical groupings. This includes recording uploads (call audio and screen capture video) and total uploads (all file types from upload details).

## Data filters

The following table describes the available filters that can be configured for the available data sources. Not all filters apply to every type of data source.

Name	Description
Agents	Select one or more agents to filter data by. If you do not select one or more agents, all agents are selected by default.
Aggregate by	Select the unit by which you want to aggregate event counts or statistics.
Application States	Choose the application states you want to display in the widget.
Assume All Groups	Select this check box to bypass the groups list in the drill-down details for widgets associated with this data set.
Assume All Teams	Select this check box to bypass the teams list in the drill-down details for widgets associated with this data set.
Categories	Select one or more categories to filter data by.
Confidence	Enter the minimum confidence value for a hit. Valid values are 1–100.  <div style="background-color: #e0f2f1; padding: 5px;"> <p><b>EXAMPLE</b> When you specify a value of 60, Speech Analytics returns hits where the confidence value is 60 or greater.</p> </div>
Date Range	Select the date range for which you want the widgets to display historical information.  <div style="background-color: #e0f2f1; padding: 5px;"> <p><b>NOTE</b> If the date range exceeds the analytics data retention period, values outside the retention period will appear as 0 in a widget.</p> </div> <div style="background-color: #e0f2f1; padding: 5px;"> <p><b>NOTE</b> The number of calls you see when using this filter might vary from the number of calls you see when using the Date Range filter on the Recordings page, for a variety of reasons:</p> <ul style="list-style-type: none"> <li>▪ Analytics data and QM data update at different times.</li> <li>▪ Analytics and QM could have different retention policies.</li> </ul> </div>

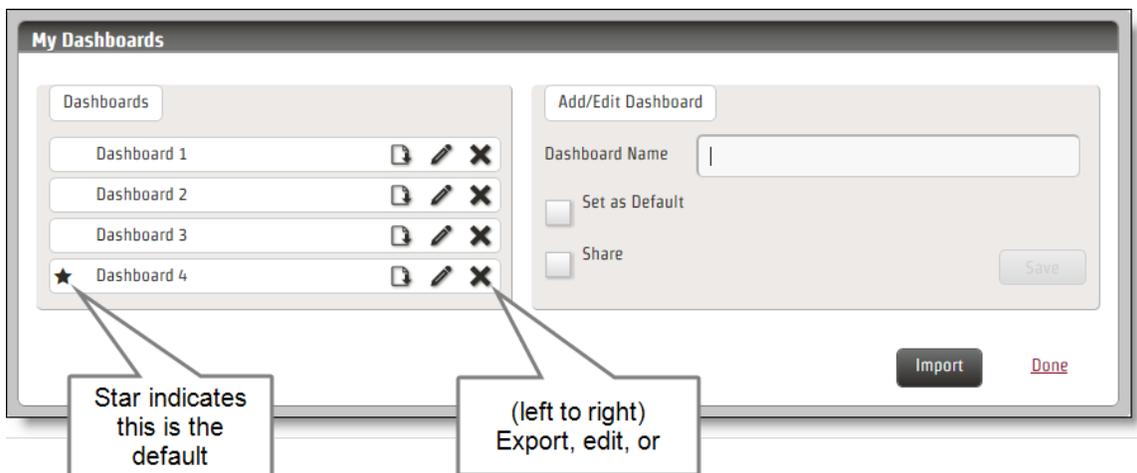
Name	Description
Enable Application States Filtering	Select this check box to allow a user to modify the selected application states from the Analytics toolbar. When this box is cleared, changes to the selected application states from the Analytics toolbar do not affect the widget.
Enable Confidence Filtering	Select this check box to allow a user to modify the selected confidence value from the Analytics toolbar. When this box is cleared, changes to the confidence value from the Analytics toolbar do not affect the widget.
Enable Date Filtering	Select this check box to enable users to modify the date range from the Analytics toolbar. When this box is cleared, changes to the global date range in the Analytics toolbar do not affect the widget.
Enable Interaction State Filtering	Select this check box to allow a user to modify the selected interaction states from the Analytics toolbar. When this box is cleared, changes to the selected interaction states from the Analytics toolbar do not affect the widget.
Enable Text Search	Select this check box to allow a user to search for phrases from the Analytics toolbar. When this box is cleared, searching for phrases from the Analytics toolbar does not affect the widget.
Event Type	Select the event type for the data set.
File Group by	Select how you want to file the group.
Filter Out Multiple Hits	<p>Select this check box to count the phrase with the higher confidence level and filter out similar phrases with a lower confidence level. When this box is cleared, all phrase hits appear.</p> <p>Analytics can generate multiple phrase hits for similar phrases with different confidence levels that occur near the same time within a recording.</p> <p><b>EXAMPLE</b> If you add phrases for “ambulance” and “ambulance service,” multiple hits can appear when Analytics locates the phrase “ambulance service.”</p>

Name	Description
From Date	The starting date for the date range.
Group By	Select the way you want to group data. The options available in this field are determined by the type of data set you are creating.
Groups	Select one or more groups to filter data by. If you do not select one or more groups, all groups are selected by default. If you select one or more groups, all teams for those groups are selected by default. Groups are limited by your assigned permissions.
Histogram Bins	Enter the number of intervals to appear in the histogram. Valid values are integers 3–100. The default is 10.
Interaction States	Choose the interaction states you want to display in the widget.
Limit to Predefined Phrases	Select this check box to filter contacts in the data set to include only ones that have predefined phrase hits. The phrases are defined in the Phrase Manager.
Name	The name of the data set.
Phrases	Select one or more phrases to filter data by.
Ranking Size	Enter how many top-ranking applications display results. Valid values are 10–100. The default is 10.
Result	<p>Select whether you want to return results that do or do not contain the specified phrases for this data set.</p> <ul style="list-style-type: none"> <li>▪ If you select <b>Return contacts with the selected phrases</b>, Webex WFO reports the total number of phrase matches among all contacts.</li> <li>▪ If you select <b>Return contacts without the selected phrases</b>, Webex WFO reports the number of contacts that do not contain the specified phrases.</li> </ul>
Show Websites Only	<p>Select this check box to display statistics only for websites accessed. When this box is cleared, statistics are displayed for both applications and</p>

Name	Description
	websites.
Tags	Select one or more tags to filter data by.
Teams	Select one or more teams to filter data by. If you do not select one or more teams, all teams are selected by default.
Text Types	Select one or more text types to filter data by.
To Date	The ending date for the date range.
Type	Select the type of trend.
Types	Select one or more types to filter data by.

### Create and manage an Analytics dashboard

Selecting, creating, and managing dashboards is done from the **Dashboards** icon on the Analytics toolbar. Click the icon to select an existing dashboard to view from the list displayed. Click the **Manage** button at the top of the list of dashboards to open the **My Dashboards** dialog box. From there you create and manage dashboards. This feature is available only if you have the appropriate permissions.



**NOTE** Shared dashboards are indicated with a lock symbol in My Dashboards. This means you can view those dashboards but you cannot edit them. Only the owner of the shared dashboard can do that.

## Create a dashboard

1. Open **My Dashboards**.
2. Type a name for your new dashboard in the **Dashboard Name** field. Optionally, you can set this dashboard to be your default dashboard, or to share your dashboard with other users.
3. (Optional) Select the **Set as Default** check box if you want to use this dashboard as your default Analytics dashboard.
4. (Optional) Select the **Share** check box if you want to share this dashboard with other users. This feature is available only if your administrator has enabled dashboard sharing on the Analytics Configuration page.
5. Click **Save** and then **Done**.

## Edit a dashboard

1. Open **My Dashboards**.
2. Select the dashboard you want to edit and click **Edit** (the pencil icon).
3. Make your changes. You can change the dashboard's name, set or remove it as the default dashboard, and share or unshare it with other users.
4. Click **Save** and then **Done**.

## Delete a dashboard

1. Open **My Dashboards**.
2. Click **Delete** (the X icon) next to the dashboard you want to delete.

**NOTE** When you delete a dashboard, you also delete all data sets and widgets associated with the dashboard.

3. Click **Save** and then **Done**.

## Export a dashboard

1. Open **My Dashboards**.
2. Click **Export** next to the dashboard you want to export.
3. Click **Save** to save the dashboard as a file named “dashboard.json” to your default download location, or **Save As** to rename the file and save it to a different location.

## Import a dashboard

1. Open **My Dashboards**.
2. Click **Import**.
3. Browse to the location where the desired dashboard is saved and select the file. The file has a JSON extension.
4. Click **Submit** to import the dashboard.

**NOTE** If you import a dashboard with the same name as one of your existing dashboards, an asterisk is appended to the imported dashboard's name.

5. Click **Save**.

## Create and manage an Analytics widget

There are four types of Analytics widgets: chart, data grid, text, and phrase cloud. Each type of widget displays the data defined in a data set. You can customize your Analytics dashboards by creating and arranging widgets to your liking.

**NOTE** You cannot add a widget until you create a data set (see [Create and manage a data set](#)).

## Add a widget to your dashboard

1. Display the dashboard to which you want to add a widget.
2. Click **Unlock** to enable the Add Widget button, and then click **Add Widget**.
3. Choose which type of widget to add.
4. Configure the settings for your selected widget type (see [Chart Settings](#), [Data Grid Settings](#), [Text Settings](#), and [Phrase Cloud Settings](#)).
5. Click **Save**.

You can move and resize the widgets on your dashboard. When you move them (click and hold while the mouse pointer is positioned in the widget toolbar), red lines appear to help you align the widget you are moving with other widgets nearby. Resize widgets by clicking and dragging the lower right corner of the widget.

Each widget has a toolbar:



- 1—Settings.** Edit the widget settings
- 2—CSV Export.** Export the data from the widget to a CSV format file
- 3—Print.** Print an image of the widget
- 4—Delete.** Delete the widget
- 5—Full Screen.** Toggles the widget between its normal size and full-screen size

## Chart Settings

When you select the Chart type for a widget, you must configure the following fields in the Chart Settings dialog box.

### Container Settings

Setting	Description
Title	The name of the widget.
Hide Title	Select this check box to hide the widget title bar. The tools from the title bar are moved to the body of the widget.
Hide Background	Select this check box to remove the widget border.

### Chart Options

Setting	Description
Title	The name of the chart.
Type	The type of chart you want to appear in this widget. <ul style="list-style-type: none"> <li>■ Line charts and area charts are typically used to demonstrate how an item changed over time. Line charts display information as a series of points connected by straight line segments. Area charts display data graphically and are based on a line chart. The area between the axis and a line is emphasized with colors. It is</li> </ul>

Setting	Description
	<p>commonly used to compare two or more quantities within a chart.</p> <ul style="list-style-type: none"> <li>Bar charts are charts with rectangular bars that have lengths proportional to the data they represent. Bar charts can be plotted vertically or horizontally. Stacked bar charts are useful when you get multiple hits in one or more categories. Stacked bar charts can be used to depict trends.</li> <li>Pie charts are circular charts divided into sectors, illustrating numerical proportion. A pie chart allows you to select two intersections of data: the series (the data you want to plot) and the value. A slice in a pie chart represents the series, and the size of a slice represents the value.</li> </ul>
Legend	The position of the legend on the chart.
Label Step	The frequency of labels drawn on the x-axis.
	<p><b>EXAMPLE 1</b> displays a label on the x-axis for each data point. <b>2</b> displays a label on the x-axis for every other data point.</p>
Enable Labels	Select this check box to display labels on the chart.
Show Data Point Labels	Select this check box to display data point labels in the chart.

## Data set Selection & Reference Grid

Setting	Description
Select Data Set	Choose one of the data sets you created from the drop-down list. The column headers associated with the data set are displayed.
Show All Data	Click this button to display an expanded version of the column headers.

## Chart Options

Setting	Description
X-Axis	Select the information to appear on the chart's x-axis. The options are based on the selected data set.

Setting	Description
Y-Axis	Select the information to appear on the chart's y-axis. The options are based on the selected data set.
Series	The data that you want to measure on the x-axis.  <b>NOTE</b> Trending data must be sorted by date. If you want to create a trending chart, choose From Date or To Date from the Series drop-down list. The trending chart will not be sorted logically if you choose Agent ID, Agent Name, Phrase, or Category.

## Data Grid Settings

When you select the Data Grid type for a widget, you must configure the following fields in the Data Grid Settings dialog box.

### Container Settings

Setting	Description
Title	The name of the widget.
Hide Title	Select this check box to hide the widget title bar. The tools from the title bar are moved to the body of the widget.
Hide Background	Select this check box to remove the widget border.

### Data Set Selection & Reference Grid

Setting	Description
Select Data Set	Choose one of the data sets you created from the drop-down list. The column headers associated with the data set are displayed.
Show All Data	Click this button to display an expanded version of the column headers.

### Chart Options

This section displays the fields that appear in the Data Grid widget. The available fields depend on the selected data set. All available fields are displayed in the data grid by default. To remove a field from the data grid, click the field name. The field will be disabled. Click the field name again to enable the field, or select All to enable all fields.

## Text Settings

When you select the Text type for a widget, you must configure the following fields in the Text Settings dialog box.

### Container Settings

Setting	Description
Title	The name of the widget.
Hide Title	Select this check box to hide the widget title bar. The tools from the title bar are moved to the body of the widget.
Hide Background	Select this check box to remove the widget border.

### Text Editor

Use the text editor to create and edit the text that appears in your text widget. The text you enter can be set in bold, italic, or underlined. You cannot control the size of the text.

## Phrase Cloud Settings

A phrase cloud is a visual representation of phrases. This format is useful for quickly identifying the most prominent phrases by font size and color.

### Container Settings

Setting	Description
Title	The name of the widget.
Hide Title	Select this check box to hide the widget title bar. The tools from the title bar are moved to the body of the widget.
Hide Background	Select this check box to remove the widget border.

## Data Set Selection & Reference Grid

Setting	Description
Select Data Set	Choose one of the data sets you created from the drop-down list. The column headers associated with the data set are displayed. <div style="border-left: 2px solid #0070C0; padding-left: 10px; margin-top: 10px;"> <p><b>NOTE</b> A phrase cloud supports any data set that has a phrase option (for example, Group by Phrase). If the phrase count data set uses Group by Category, you cannot create a phrase cloud with that data set.</p> </div>
Show All Data	Click this button to display an expanded version of the column headers.

### Displaying widget details

The widget Details pane displays a data grid that contains the data that is the source of the graphic representation. You open the Details pane by clicking on an item or data point within the widget, or by clicking the Full Screen Toggle button in the toolbar and then the Details button at the top of the widget pane.

**NOTE** A data grid widget displays the same information that the Details pane contains. You can drill down into that information just as you can in the Details pane.

The initial data grid displays general details. To view more specific details, double-click a row to drill down into the information. Breadcrumbs are added at the top left of the Details pane to help you navigate back to where you started. The Home icon brings you to the initial data grid view.

The Setting icon next to the breadcrumb trail opens a configuration window where you can select the data you want displayed in the Details pane.

### Notifying users of non-approved application usage

You can send an email notifying one or more people regarding the use of a non-approved application or website. When you drill down far enough in the Details pane to show the agent detail grid containing the Application Label column, there is an email icon next to a link naming the application or website in question.

Click the Email icon to display an email form. The body of the email contains the following information:

- A statement indicating that an unapproved application or document was used
- The name of the agent
- The date and time that the application was accessed

- The names of the application and document
- A URL to the application usage issue in Agent Explorer
- (Optional) Your comments

**NOTE** Click the link in the Application Label column to navigate to Agent Explorer for the date and time the application was accessed.

Enter one or more email addresses, append any comments you might have to the end of the message, and then click OK to send the notification out.

## Filter data on the Analytics dashboard

Filter the data in all the widgets that appear on your dashboard using the Data Filters tool. You can choose one or more filters to apply. When you do create more than one filter, the results must match all the filter criteria.

**NOTE** Not all types of data can be filtered. See [Create and manage a data set](#) for a list of data that can be filtered.

Any data filters that you set apply to any dashboard you view during a session. However, if you log out and then log in again, you must configure your filters again. They do not persist from session to session.

## Add a data filter

1. Click **Data Filters**.
2. Click **Add Filter**.
3. In the Add Filter dialog box, select the filter. There are four filter types:
  - Analysis—filter by call statistics and events
  - Contact—filter by the recording contact information
  - Date—filter by time zone
  - Organization—filter by agent, group, or team
4. Select the operator (such as greater than, less than, contains, and so on) and enter a value. The value can include wild cards (\* or ?). The asterisk wild card stands for any number of characters, and the question mark wild card stands for one character.

**EXAMPLE** A filter to find calls that include more than three talkover events is “Talk Over

Events Greater than 3.”

5. Click **OK**.

## Customize your Analytics dashboard

There are two toolbars available on the Analytics page.

### Analytics toolbar

The Analytics toolbar allows you to manage the contents of your dashboard.



#### 1—Search field

The Search field filters the text in widgets that use the Contact Count, Content Trend, Text Contact Count, and Text Contact Trend data sets. This field appears only if the Enable Text Search check box is selected in a Contact Count data set.

#### 2—Global Date Range field

The Global Date Range field filters historical information in widgets by date range. Your selection affects all widgets in the dashboard whose data sets have the Enable Date Filtering check box selected. This field is available when the dashboard is locked.

#### 3—Confidence field

The Confidence field is used to set the minimum confidence value for a hit. Valid values are 1–100.

**EXAMPLE** When you specify a value of 20, Analytics returns hits where the confidence value is 20 or greater.

This value affects all widgets in the dashboard whose data set is configured with the Allow Override Confidence check box selected. This value does not persist from session to session.

#### 4—Data filters

Click the Data Filters button to display the Data Filters dialog box. Use this dialog box to add filters that determine the recording data that appears in your widgets (see [Filter data on the Analytics dashboard](#)).

**NOTE** Data filters are supported only with Speech Analytics.

#### 5—Interaction State

Click the Interaction States button to select the interaction states (active, inactive, after call work, and on hold) you want data about displayed in your widgets. By default, all interaction states are selected.

## 6—Application State

Click the Application State button to select the application states (approved, not approved, ignore, and new) you want data about displayed in your widgets. By default, all application states are selected except for the Ignore state.

## 7—Dashboards

Click the Dashboards button to display a list of the dashboards available to you. If you have the appropriate role and permissions, you can access the My Dashboards dialog box by clicking the Manage link (see [Create and manage an Analytics dashboard](#)).

## 8—Print

Click the Print button to print a snapshot of the Analytics dashboard.

## 9—Lock/Unlock

This button toggles between Locked and Unlocked.

- When locked, you cannot change the widgets on the dashboard or their layout.
- When unlocked, you can add, edit, and delete widgets and change their layout.

 **NOTE** Shared dashboards cannot be unlocked. They can be changed only by their owners.

## 10—Save

Click the Save button to save changes you made to an unlocked dashboard.

## 11—Data Set Manager

The Data Set Manager allows you to create, modify, and delete data sets associated with the displayed dashboard (see [Create and manage a data set](#)). This button is enabled when the dashboard is unlocked.

## 12—Add Widget

Click the Add Widget button to choose a widget type and configure the content of that widget (see [Create and manage an Analytics widget](#)). This button is enabled when the dashboard is unlocked.

## 13—Tile Widgets

Click the Tile Widgets button to stack the widgets in the upper left corner. This button is enabled when the dashboard is unlocked.

## 14—Select Tool

Click the Select Tool to select widgets and then align them on the dashboard. You select widgets by either dragging a rectangular selection area around them or pressing Ctrl + Click to select them one by one. Selected widgets are outlined in red. This button is enabled when the dashboard is unlocked. When you select widgets with this tool, the Widget Alignment toolbar is opened and displayed in the upper left corner of the page.

You can select widgets as long as the Select Tool button is enabled (it turns dark gray). It stays enabled until you click it again to disable it. When it is disabled you cannot select widgets.

### Widget Alignment toolbar

The Widget Alignment toolbar appears when you select widgets on your dashboard using the **Select Tool** on the Analytics toolbar. By default the toolbar appears in the upper left corner of the dashboard.



### 1—Align to Canvas check box

When you select the Align to Canvas check box, widgets are snapped to one of the outer edges of the dashboard when you use the alignment control buttons.

**EXAMPLE** If the check box is selected and you click Align Bottom, all your selected widgets snap to the bottom edge of the dashboard. If the check box is cleared and you click Align Bottom, all your selected widgets align their bottom edges to the bottom edge of the widget that is positioned lowest on the dashboard.

### 2—Align Left

Click the Align Left button to align the left sides of all selected widgets.

### 3—Align Right

Click the Align Right button to align the right sides of all selected widgets.

### 4—Align Top

Click the Align Top button to align the tops of all selected widgets.

### 5—Align Bottom

Click the Align Bottom button to align the bottoms of all selected widgets.

## 6—Match Width

Click the Match Width button to size the width of all selected widgets to the width of the widest widget.

## 7—Match Height

Click the Match Height button to size the height of all selected widgets to the height of the tallest widget.

## 8—Distribute Horizontally

Click the Distribute Horizontally button to spread the selected widgets evenly and horizontally across the dashboard. They are resized to the same width with their side edges touching.

## 9—Distribute Vertically

Click the Distribute Vertically button to spread the selected widgets evenly and vertically across the dashboard. They are resized to the same height with their top and bottom edges touching.

## 10—Move Toolbar

Click and hold the Move Toolbar button to drag the toolbar to any location you wish on the dashboard. The toolbar stays in this location for the duration of your session.

## Monitor agents' focus and activity

The Agent Explorer page allows a supervisor or manager to view an agent's focus and activity for a specific date in a single view.

## Prerequisites

- You have the View Analytics or Administer Analytics permission.
- Your organization does not use RTE recording (also known as chunk recording). Because of the way RTE recording processes desktop data, Agent Explorer is not available for integrations with Cisco Webex Contact Center.

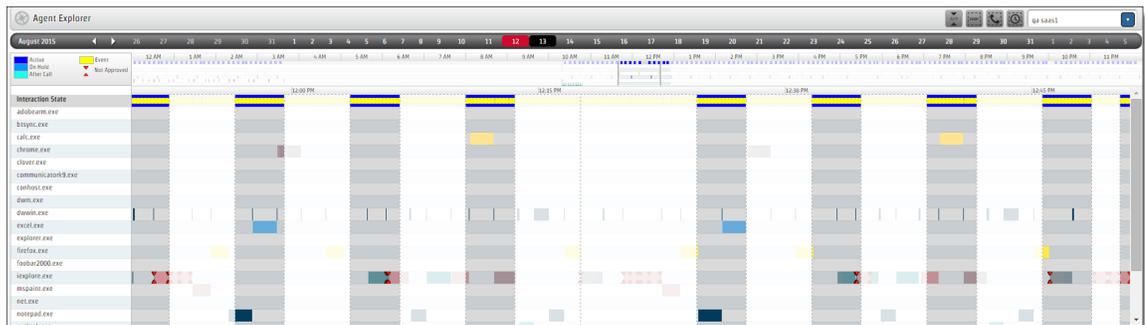
## Page location

Agent Explorer

## Procedures

### View an agent's focus and activity:

1. Select the agent from the **Choose an agent** drop-down list (top right of the page). A list of programs the agent used and the agent's state while using those programs displays.



**NOTE** For more information about what you can see on this page, see [About Agent Explorer](#).

2. (Optional) Click a date or the month arrows at the top of the screen to view a different date. Agent Explorer does not display information for today or dates in the future.
3. Drill down for more information using one or more of the procedures below.

### See more information about an interaction state, event, document, or URL in the main panel:

Hover over the element. A tooltip appears.

**EXAMPLE** This is a tooltip for an interaction state.

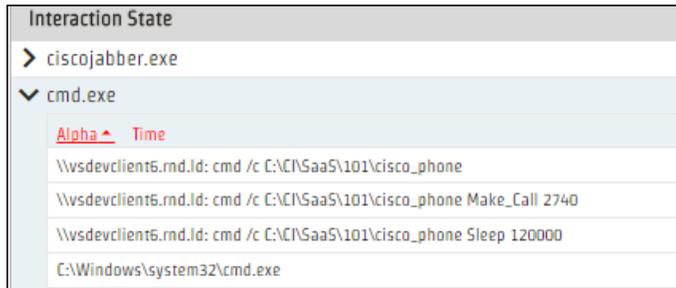
```
State: Active
Date: 2015-08-13
Start Time: 07:38:57 AM
Duration: 00:02:29
Calling Number: 1006
Called Number: 1005
Contact ID: 14
```

### See an agent's focus during calls only:

1. Toggle the **Call Boundaries** button on.
2. Toggle the **Idle Boundaries** button off.

### See the documents or URLs an agent accessed from an application or website:

1. In the column under Interaction State, click the arrow to the left of the application or website name.
2. To sort the documents or URLs alphabetically, click **Alpha**. To sort them by the time the agent accessed them, click **Time**.



### Turn off the non approved content markers:

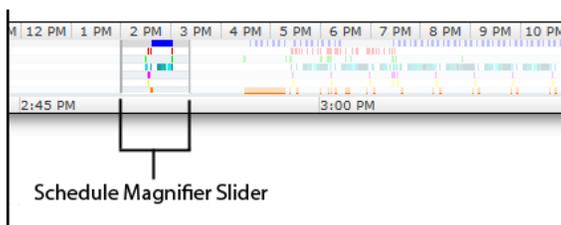
Toggle the **Non Approved Content Markers** button off.

### Highlight a specific kind of event:

1. Toggle the **Events** button on. The Events dialog box opens.
2. Select the kind of event to highlight.

### Zoom in on a part of the agent's schedule:

1. Click the Schedule Magnifier slider in the time scale bar at the top of the page.
2. To view the schedule in 15-minute increments, drag the slider horizontally, or click a time in the time scale bar.



**NOTE** Your web browser's zoom in and zoom out features do not work in Agent Explorer. If you use the zoom in or zoom out feature, the selected time does not display correctly when you use the Schedule Magnifier slider.

**Play a recording associated with an interaction state:**

1. Click an interaction state associated with a call. The column below the interaction state is highlighted purple.
2. Double-click the interaction state. The Media Player opens.
3. Click **Play** in the Media Player.
4. If you have Speech Analytics, click the **Speech** tab to see phrases associated with the recording.

**Related topics**

- [Play interactions](#)

**About Agent Explorer**

The Agent Explorer page contains the main grid and a toolbar. The left pane of the grid displays the applications and websites used by the agent. The right pane shows when the document or URL was used. They are displayed in different colors so you can readily see changes to an agent's focus.

The four buttons on the toolbar are toggles that control what is displayed in the grid. The legend at the left under the calendar bar identifies what the colors and symbols in the grid mean.

Button	Name	Description
	Non Approved Content Markers	Toggles Non Approved Content markers that designate applications the agent used that are not approved.
	Events	Toggles Event markers that indicate the agent's focus on an application that triggered the event. The event is highlighted in yellow in the Interaction State row.  When toggled on, the Events dialog box opens that prompts you to select the type of event to highlight. By default, all events are selected.
	Call Boundaries	Highlights the duration of a call in gray. If you want to see only an agent's focus during a call, toggle the Call Boundaries button on and toggle the Idle Boundaries button off.
	Idle Boundaries	Highlights the idle time information between contacts in white, including the applications used during that time. Toggling this button off allows you to clearly see approved and unapproved applications during a contact.

An Interaction State row appears immediately below the legend. The Interaction State shows the status of the agent's call status at a specific point in time.



**NOTE** You might see System Lock in one of the rows below Interaction State. This means that an agent's desktop was locked or asleep and shows what applications or websites were in focus during that state.

# Analyze business intelligence data

## Your homepage dashboard

Your homepage dashboard is powered by Data Explorer and is customized to your role. Your role and permissions determine how the homepage works. Some users can create their own homepage, while others can view one or more homepages supervisors and administrators create and share.

## Prerequisites

- You have valid Webex WFO login credentials
- A supervisor or administrator has created a dashboard for your role
- Administer Dashboards permission (optional)
- View WFM Dashboard permission (required for WFM users to see a homepage dashboard)
- View QM Dashboard permission (required for QM users to see a homepage dashboard)

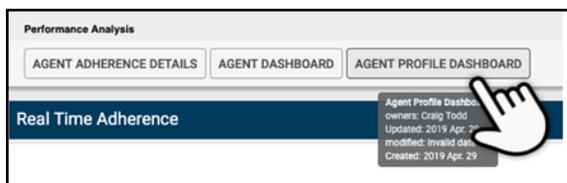
## Page location

Home

## Procedures

### View another dashboard

If you have access to multiple dashboards, you will see buttons with the different dashboard names at the top left of the home page. Click the button for the desired dashboard. The dashboard you select becomes the one that is displayed when you log in or return to the homepage from elsewhere in Webex WFO.



## Create your own dashboard

If the toolbar at the top of the page includes Data Explorer, you have permission to use it to create your own dashboard and homepage. The Related Topics section lists topics that can help you create your own dashboard.

## Related Topics

- [Manage the list of Data Explorer dashboards and reports](#)
- [Create a report](#)
- [Create a dashboard](#)
- [Setting your homepage](#)

## Create your own reports with Data Explorer

Data Explorer allows you to create your own reports and dashboards. The Data Explorer page includes a list of default reports and dashboards that you can use as is, or use as templates to get you started on developing your own.

A report is a tool that you use to answer a business question. For example, you can create a report that tells you what your total sales were last year or how many contacts an agent transferred between June and August. Using Data Explorer, you can define the question that your report will answer.

Once you have report data that gives you targeted, useful information, you can configure a chart or table to present that information in a visual format that is easy to understand. Charts can display a single piece of information, like a headline, or show trends and relationships between several complex metrics.

Reports can be grouped by theme or subject in dashboards. Dashboards provide a wealth of information at a glance and can reveal new or hidden relationships between different kinds of data.

**IMPORTANT** The amount and complexity of reports in Data Explorer dashboards can affect performance. For optimal performance, limit the number of complex reports included on your Data Explorer dashboards.

## Create a report

Reports are the building blocks of Data Explorer that help you visualize trends in your data. You create a report by defining the question you want to answer and configuring the output so the answer is presented in a meaningful way.

To start the process, you break the question down into its individual parts:

- **Measures**—The metrics you want to understand. These are numerical fields that will have calculations performed on them, such as adding or averaging.
- **Subjects**—How you want the metrics grouped. These are text fields that are used as category-style groupings, such as agent ID number or queue name.
- **Filters**—The boundaries that you want the metrics to fall within, such as a time frame or maximum/minimum values.

### EXAMPLE

You want to find out how many contacts that lasted longer than ten minutes were handled by each agent on the East Coast team during the month of March.

- The **measure** is contacts.
- The **subjects** are the agents on the East Coast team.
- The **filters** are contacts longer than ten minutes and the month of March.

These three components make up the structure of reports that can be incredibly complex and useful.

Once you have created the question of the report, you can then determine how the information in the report is displayed. There are a wide variety of customizable charts and tables to choose from.

## Create a question

Reports are the building blocks of Data Explorer that help you visualize trends in your data. You create a report by defining the question you want to answer and configuring the output so the answer is presented in a meaningful way. There are a wide variety of customizable charts and tables to choose from.

You use the Question panel to create a question. To start the process, break down the question into its individual parts:

- **What**—The measures (metrics) you want to understand. These are numerical fields that will have calculations performed on them, such as adding or averaging.
- **How**—How you want the measures grouped. These are text fields that are used as category-style groupings, such as agent ID number or queue name.

- **Filters**—The limits that you want the metrics to fall within, such as a time frame or maximum/minimum values.

### EXAMPLE

You want to find out how many contacts that lasted longer than ten minutes were handled by each agent on the East Coast team during the month of March.

- **What** is the number of contacts (the measure).
- **How** is the agents on the East Coast team (the grouping).
- **Filters** limit the report to contacts longer than ten minutes and that were from the month of March.

**NOTE** As you create your question, the pane at the bottom of the Question panel states the question in plain language based on your selections in the What, How, and Filters sections.

### Create a new report

In order to create a question, you need a report in which to put it.

### Create and name your new report

1. On the Data Explorer home page, click **New Report** to display the report designer.
2. Click **Unnamed Report** in the title bar and enter a name for the new report.

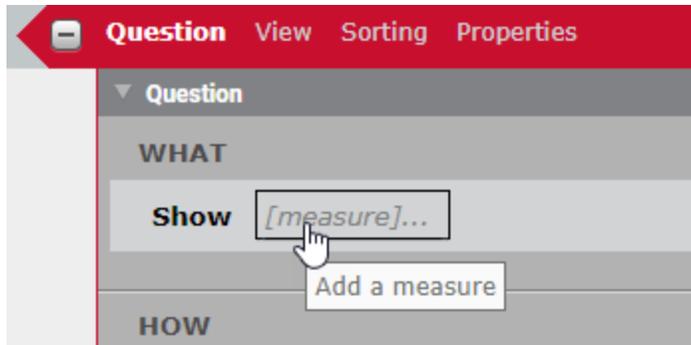
### Choose a measure

Decide what information you want your report to show. These numeric values are called measures.

There is a list of measures that you can choose from, or you can create your own custom measures. Multiple measures are often used in reports. For example, a report that shows contact duration in hours might also show the average contact duration.

### Configure measures for a new report

1. In the **What** section of the **Question** panel, click Show **[measure]**. The **Select Measure** dialog box opens.



By default, all available measures are listed. Click **By Tags** to view measures that apply only to various sources of data, such as Analytics or QM. Some measures have multiple tags and so appear in more than one tag list.

2. Select the measure you want to include in the report from the list of available measures.

You can also click **Custom** in the top right corner to create a custom measure. For more information about custom measures, see [Create a custom measure](#).

3. (Optional) Customize how the measure will appear in the report by using the **Measure Configuration** panel at the bottom of the dialog box. Here you can configure the number or date format of the measure, how it is aggregated, and apply content attributes to it. For more information about configuring a measure, see [Configure a measure's appearance](#).

4. Click **Add**.

The measure you added is displayed in the Question panel, and another Show field is added below the one you completed. Use this field to add additional measures to your question.

**NOTE** If you want to configure a measure you have already added to the **What** section, click the measure to open the **Select Measure** dialog box again.

5. (Optional) Measures display as columns by default. Click **as columns** to switch to displaying them as rows.

### Choose a grouping

After you have defined the topic of your question with the measure, determine how to group the information. The **How** question term is often the organization of people, places, things, and timeframes that provide real-world subjects or circumstances for the report. It is common to have multiple How subjects in a report.

## Determine how the report will group the information

1. In the **How** section of the Question panel click Group **[grouping]**. The Select Grouping dialog box opens.

There are two grouping options, **Subject** or **Time**. By default you see the Subject option. If you want to group by time or date, click **Time** in the upper right corner of the dialog box. You are also able to further refine the time grouping by period.

2. Choose the desired grouping, and then click **Add**.

The grouping you added is displayed in the Question panel, and another **[grouping]** field is added below the one you completed. Use this field to add additional groups to your question.

**NOTE** If you select **with totals** in the Group section of the Question panel and select **Preserve Totals** when creating a visualization, the chart will display the total value as an additional column.

### Set a filter

The final step of defining a question is choosing a filter. A measure alone can return a large amount of information. The filter serves to target the specific information you want to include or exclude in your report. You can select specific values to include or exclude, or you can set text comparison filters or range comparison filters to determine which range of values are included in your report.

**NOTE** If your system has a lot of historical data, you might find it useful to configure your filter before you configure your measures and groupings. This helps speed up displaying the report preview.

The filter section is also used to configure which subjects are used in conjunction with parameters on the dashboard. For example, if your report lists every agent in the contact center, but you want to be able view data only for a specific agent, the parameter allows you to select that agent and see only their data displayed in the report.

### Include only certain values of a subject in the report

1. In the **Filters** section of the Question panel, click Limit to **[limit]**. The **Select Filter** dialog box opens.
2. Select a subject, and then select a field to filter the report by.
3. Clear the **All Values** check box, and select the check box for the values you want to include.
4. Click **Add** to filter the report.

**EXAMPLE**

You want to include only contacts that were tagged for HR in your report. You complete the **Select Filter** dialog box as follows.

- In the left-hand pane, select **Contact**.
- In the middle pane, select **HR**.
- In the right-hand pane, on the **Select** tab, clear the **All values** check box and select the **1** (which means true or yes) check box.

The screenshot shows the 'Question' dialog box in Data Explorer. The interface is divided into three main sections: WHAT, HOW, and FILTERS.

- WHAT:** The 'Show' dropdown is set to 'Contacts...'. The 'and' section contains a placeholder '[measure]...'. The 'as columns' dropdown is set to 'as columns'.
- HOW:** The 'Group' dropdown is set to 'rows by'. The 'Agent...' dropdown is set to 'Agent...'. The 'without totals' dropdown is set to 'without totals'. The '[that]' dropdown is set to '[that]'. The 'Group' section contains a placeholder '[grouping]...'.
- FILTERS:** The 'Limit to' section is set to 'Contact whose HR...'. The 'is' dropdown is set to 'is'. The value '1' is entered in the adjacent field. The 'and' section contains a placeholder '[limit]...'.

At the bottom, the 'I'm asking to:' section displays the generated query text: "Show Contacts as columns Group rows by Agent without totals Limit to Contact whose HR is 1."

## Exclude certain values from the report

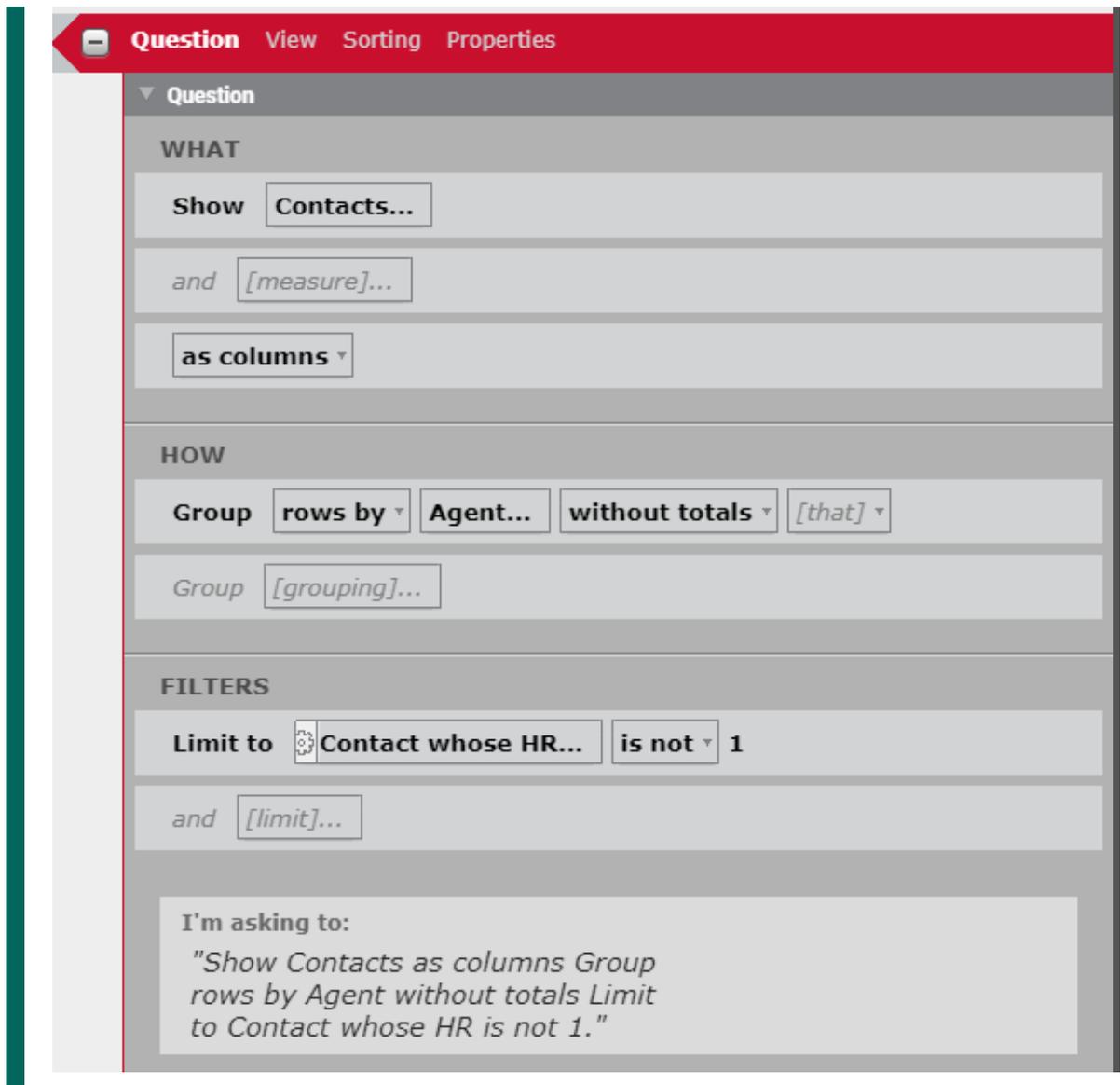
1. In the **Filters** section of the Question panel, click Limit to **[limit]**. The **Select Filter** dialog box opens.
2. Select a subject, and then select a field to filter the report by.
3. Clear the **All Values** check box, and then select the check box for one or more of the values that you want to exclude.
4. Click **Add**.
5. In the **Filters** section of the Question Panel, click the **is** drop-down list in the filter you created and select **is not** from the drop-down list.

### EXAMPLE

You want to exclude contacts that were tagged for HR in your report. You complete the **Select Filter** dialog box as follows.

- In the left-hand pane, select **Contact**.
- In the middle pane, select **HR**.
- In the right-hand pane, on the **Select** tab, clear the **All values** check box and select the **1** (which means true or yes) check box.

In the **Filters** section of the Question panel, next to the filter you just added, change **is** to **is not** in the drop-down list.



### Include or exclude values using comparison filters

1. In the **Filters** section of the Question panel, click Limit to **[limit]**. The **Select Filter** dialog box opens.
2. Select a subject, and then select a field to filter the report by.
3. Clear the **All Values** check box, and then take one of the following actions:
  - Select the check box for the value to set it as a comparison.
  - On the **Specify** tab, enter a value in quotation marks to set as a comparison.

4. Click **Add**.
5. In the Filters section of the Question panel, click the **is** drop-down list in the new filter and select the operator you would like to apply to the value.

#### EXAMPLE

You want to include only agents who belong to the East Team in your report. You complete the **Select Filter** dialog box as follows.

- In the left-hand pane, select **Team**.
- In the middle pane, select **Team Name**.
- In the right-hand pane, on the **Select** tab, clear the **All values** check box and select the **East-Team** check box. Alternatively, click the **Specify** tab and enter “**East-Team**” in the filter value pane.

The screenshot shows the 'Question' panel in Data Explorer. The panel has a red header with a minus icon and the text 'Question View Sorting Properties'. Below the header, the 'Question' section is expanded, showing the following configuration:

- WHAT**: 'Show' button, 'Contacts...' input field.
- and**: '[measure]...' input field.
- as columns**: dropdown menu.
- HOW**: 'Group' button, 'rows by' dropdown, 'Agent...' input field, 'without totals' dropdown, '[that]' dropdown.
- Group**: '[grouping]...' input field.
- FILTERS**: 'Limit to' button, 'Team whose Team Name...' input field, 'is' dropdown, 'East-Team' input field.
- and**: '[limit]...' input field.

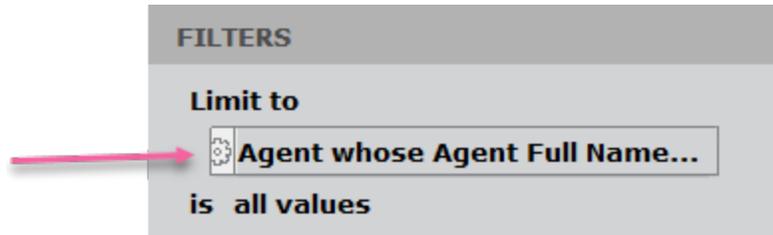
At the bottom, a text box displays the generated query: "I'm asking to: 'Show Contacts as columns Group rows by Agent without totals Limit to Team whose Team Name is East-Team.'"

### Add one or more report parameters

If you intend to use a parameter control such as a member picker to filter the data displayed in a report, you must add one or more report parameters to the report. For more information about using parameters with a report, see [Add a parameter](#).

1. In the **Filters** section of the **Question** panel, click Limit to **[limit]**. The **Select Filter** dialog box opens.
2. Select a subject, and then select a field to filter the report by.

3. On the Select tab, select the **All Values** check box.
4. Click **Add**. The subject is displayed in the **Limit to** field.
5. To the left of the **Limit to** field, click the gear icon to open the **Report Parameter** dialog box.



6. in the **Name** field, enter a name for the parameter. The name cannot contain a space. All other fields are optional.

**Report Parameter**

Name  
AgentName

Description

Default Value(s)  
\*

Set this in the Question Panel

Compute Additional Values

...

Compute all values

Data Source

...

Remove Cancel Save

7. Click **Save**. Note that the gear icon has turned red, indicating that the parameter has been configured.
8. Repeat this procedure for any other filters you want to use in the report.

#### Filtering deleted forecast, adherence, and agent schedule records

By their nature, forecast, adherence, and agent schedule records are frequently changed. For example, an agent's schedule might be changed multiple times. Each time this occurs, a schedule record is deleted and a new one is created.

In the Data Explorer database, these records are not physically deleted. Rather, they are flagged as deleted, and the record remains in the database. This results in many records that are no longer relevant and might result in inaccurate reports if they are included. In this case, the records that are flagged as deleted should be filtered out of your report.

Bear in mind that there might be times when you want to include these flagged records in a report. For example, you might need to audit how many times a specific agent's schedule was changed. In such a case, you would not filter the deleted records from your report, because each record logs a schedule change.

### Filter deleted forecast, adherence, and agent schedule records

1. In the **Filters** section of the Question panel, click Limit to **[limit]**. The **Select Filter** dialog box opens.
2. Select a forecast, adherence, or schedule subject, and see if the fields associated with that subject include any of these flag fields:
  - Agent Adherence Report IsDeleted
  - Schedule Activity IsDeleted
  - Forecast IsDeleted
3. If you locate one of these fields, select it. Clear the **All Values** check box and select **1** (1 = true or yes).
4. Click **Add**.
5. In the **Filters** section of the Question panel, click the **is** drop-down list and select **is not**.

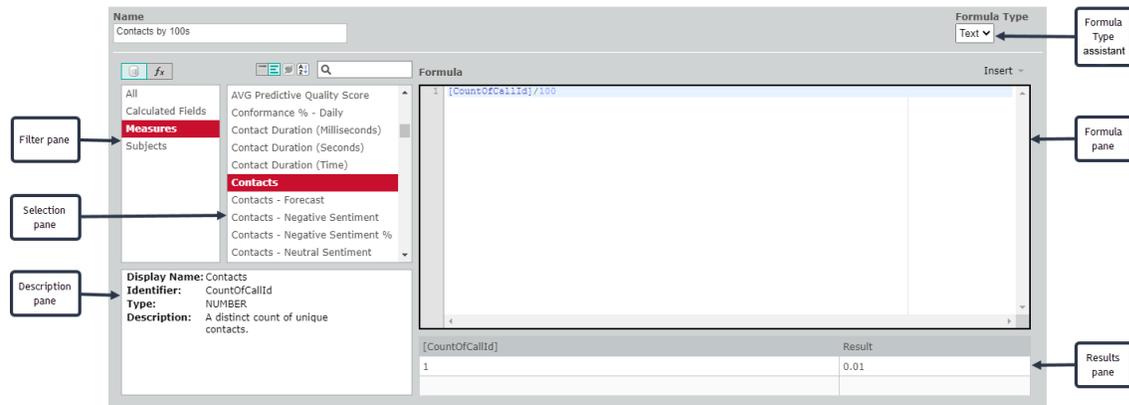
### Create a custom measure

If you want to add a measure to a report that is not in the list of measures, you can create a custom measure by clicking **Custom** in upper right corner of the **Select Measure** dialog box.

Custom measures use formulas to alter measures and fields that already exist in the data model. You can create a formula by manually entering measures and operators into the Formula pane. The custom Create Measure dialog box includes lists of the available measures, operators, and references that you can choose from to build a formula.

The Create Measure dialog box for custom measures is made up of two sections: the Formula Editor panel at the top and the Measure Configuration panel at the bottom. For information on the Measure Configuration panel, see [Configure a measure's appearance](#).

The Formula Editor is context-specific. It allows you to include only the data elements, functions, and other features for your formula that are appropriate for the measure you select.



- The **Filter pane** contains the options you can use to narrow the number of data elements or functions displayed in the Selections pane. For example, if you select **Measures** in the Filter pane, only measures are listed in the Selections pane. Use the buttons   above the Filter pane to toggle between data elements and functions. Data elements are the fields in the data library that are available for use in your formula, and functions are defined operational tasks.
- The **Selection pane** displays the elements or functions you can add to your formula. What is displayed depends on your selection in the Filter pane. Use the buttons   above the Selection pane to toggle between measure or function display names and identifiers. You can sort the data elements or functions in ascending or descending order with the Sort button , and search for a specific data element or function with the search field.

**NOTE** This button  is not currently used.

- The **Description pane** displays information about the data element or function that you have selected in the Selection pane.
- The **Formula pane** displays the formula as you create it. This pane includes the data elements and functions you select and whatever other formula elements you enter manually.
- The **Results pane** attempts to compile your formula as you work and to display the result. It will display an error message if your formula contains errors.

- The **Formula Type assistant** drop-down list enables you to access assistants that help you create various types of formulas. The default is a text formula, but besides text you can choose from difference, ratio, scale, split, and time shift formula types. See [Create a custom measure with a Formula Type assistant](#) for more information.

### Example of a custom measure

The Custom Measure function is a tool that can be used to create many different types of formulas with different levels of complexity. There are several ways to create a formula. The following example explains one way to create a custom measure.

For this example, let us say that you want to see a report that involves the number of contacts your agents handle. Your contact center receives large numbers of contacts, so the report would show each agent handling contacts that can number in the thousands every year. However, you use the report to find agents who are performing above or below the rest of the group, and seeing the exact number of contacts for each makes that difficult to absorb at a glance, as seen in this graphic:

The screenshot shows a report interface with a table and a configuration panel. The table displays agent names and their corresponding contact counts. The configuration panel on the right shows the report's settings, including the question, grouping, and filters.

Agent	Contacts
	2
Sim Agent1	34,612
Sim Agent2	34,589
Sim Agent3	34,523
Sim Agent4	35,029
Sim Agent5	34,592
Sim Agent6	34,804

The configuration panel on the right shows the following settings:

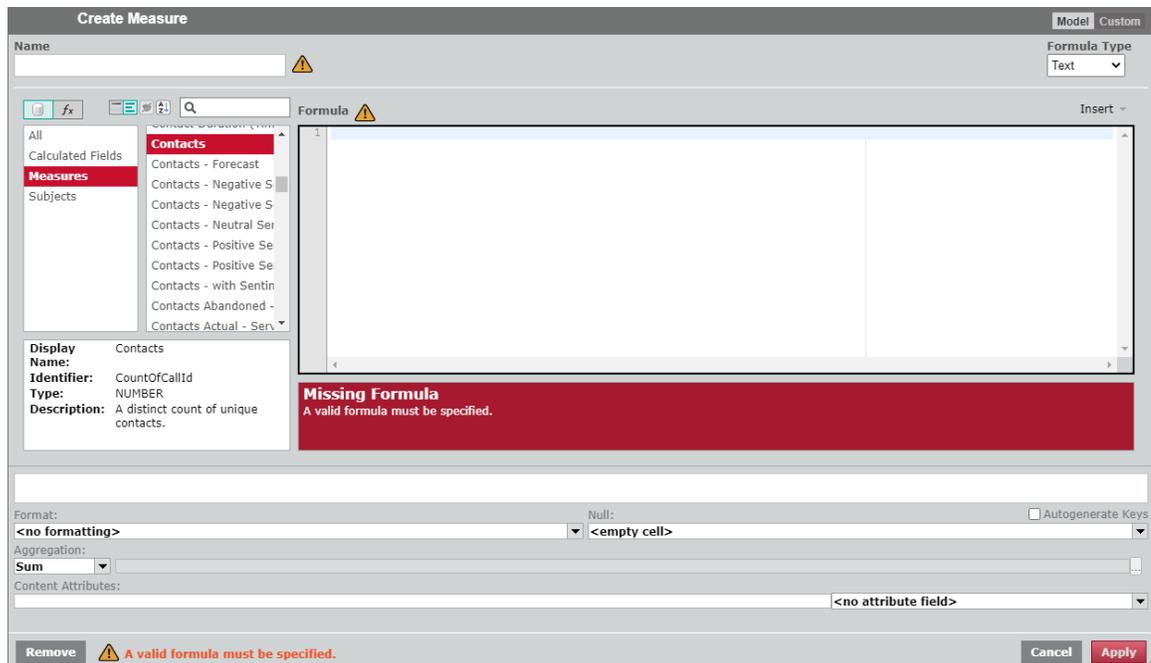
- Question:** WHAT: Show Contacts... and [measure]...
- HOW:** Group rows by Agent... without totals [that]... Group [grouping]...
- FILTERS:** Limit to [limit]...
- I'm asking to:** "Show Contacts as columns Group rows by Agent without totals."

The way to solve this problem is to present the number of contacts as factors of 1,000 in order to see agent productivity at a glance. In this example we will show you how to create a custom measure that divides the number of contacts by 1,000.

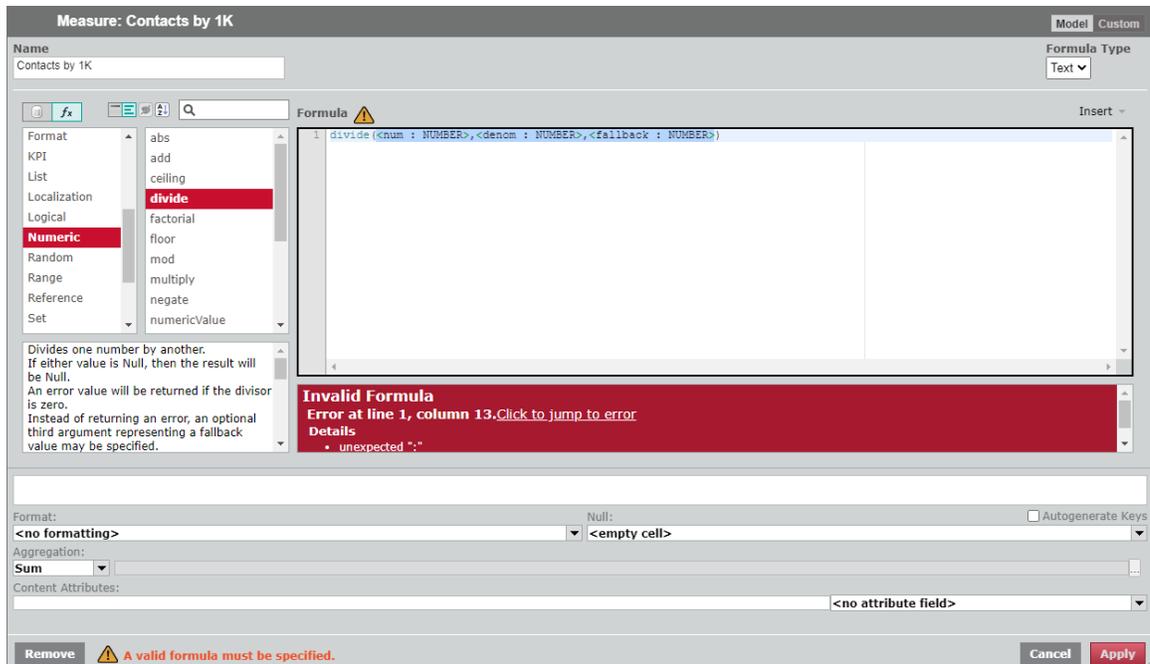
## Create a custom measure to divide contacts by 1,000

1. On the Question tab of the Question panel, click Show **[measure]**. The **Select Measure** dialog box opens.
2. Click **Custom**. The Create Measure dialog box opens. The text boxes will be empty, and several warnings will display in the dialog box.
3. Enter **Contacts by 1K** in the **Name** text box.
4. Locate and select the **Contacts** measure.

**NOTE** You might need to clear the search field of an existing search string in order to see all results in the Selection pane.



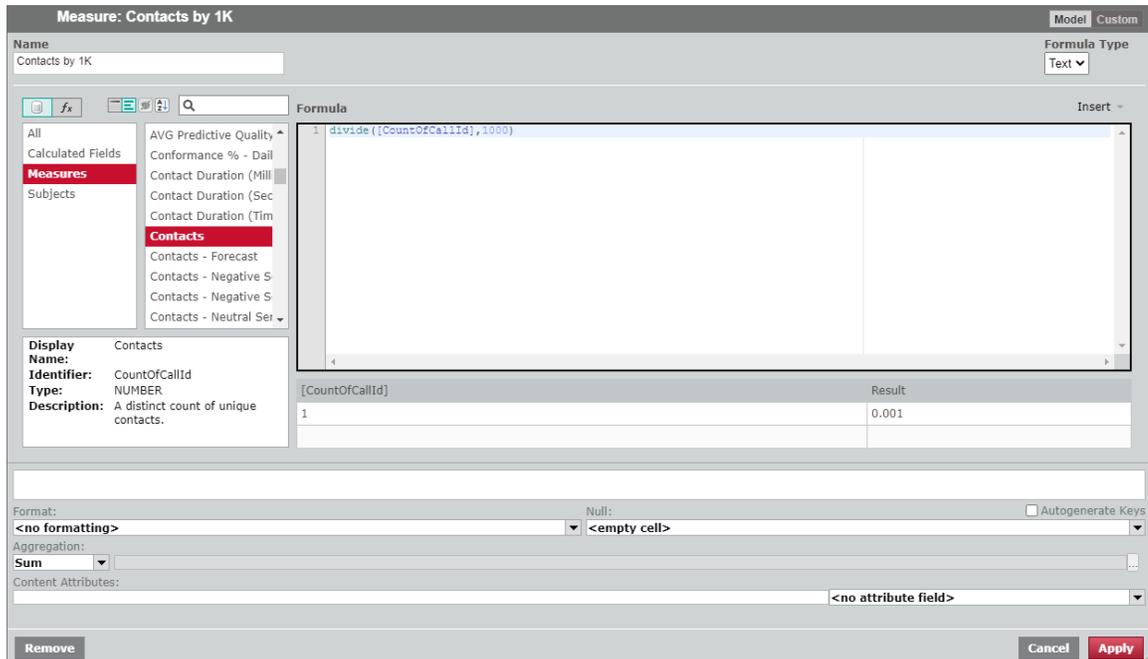
5. To use the Divide function, click the **Data Elements/Functions** toggle so the **Filter** and **Selection** panes display functions.
6. Click **Numeric** in the **Functions Filter** pane, and then double-click **divide** in the **Selection** pane. The Divide function text is displayed in the Formula pane.



The Divide function text is an outline of the formula. You must replace the placeholder text with the values you want to divide in the order that they would appear in a mathematical equation.

- <num : NUMBER> is the numerator, the number being divided. Replace this with the contact field name.
  - <denom : NUMBER> is the denominator, the number you are dividing by. Replace this with **1000**.
  - <fallback : NUMBER> is an optional value that is displayed if the formula results in dividing by zero instead of returning an error.
7. To replace <num : NUMBER> with the measure for the number of contacts, highlight **<num : NUMBER>** in the Formula pane.
  8. Click the **Data Elements/Functions** toggle to display lists of data elements.
  9. Click **Measures** in the **Data Elements Filter** pane, and then double-click **Contacts** in the **Selection** pane. The Contacts text appears in the Formula pane in place of **<num : NUMBER>**.
  10. Delete **<denom : NUMBER>**, and type **1,000** in its place. The Results pane displays a sample of the calculation.

**NOTE** We have also deleted **<fallback : NUMBER>** from the formula, because we are not using this optional element.



**Measure: Contacts by 1K** Model Custom

Name: Contacts by 1K Formula Type: Text

Formula: `divide([CountOfCallId],1000)`

Display Name: Contacts  
 Identifier: CountOfCallId  
 Type: NUMBER  
 Description: A distinct count of unique contacts.

[CountOfCallId]	Result
1	0.001

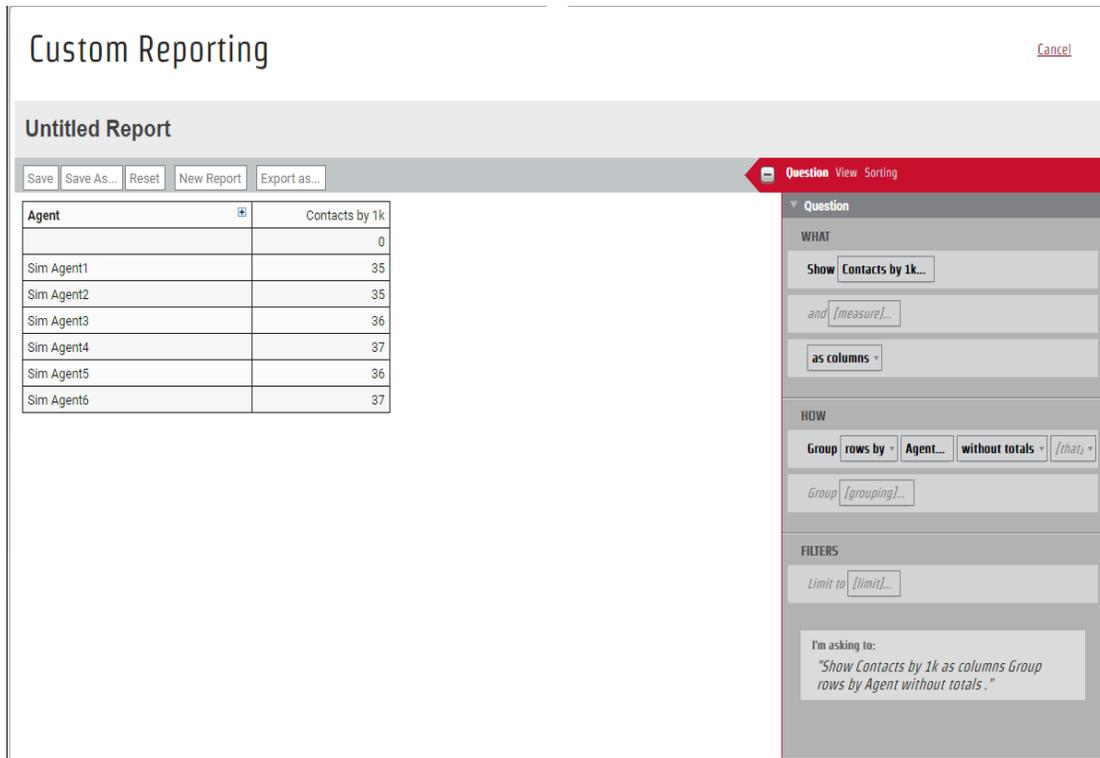
Format: <no formatting> Null: <empty cell> Autogenerate Keys:

Aggregation: Sum

Content Attributes: <no attribute field>

Remove Cancel Apply

11. To make the results display as a whole number, in the Measure Configuration section, select a format from the **Format** drop-down list that does not include any decimal places, such as **#,###**.
12. Click **Add**. Your new custom measure appears in the Question panel, and the new column in the table displays the number of contacts divided by 1,000.



**NOTE** As previously mentioned, the Create Measure dialog box includes several options for creating formulas. As an alternative to selecting a Function and editing the placeholder text, you can create a custom measure to divide the number of contacts by 1,000 by selecting the elements individually or manually entering the following formula in the Formula pane.

`[CountOfCallId]/1000`

## Related Topics

- [Data Explorer formula language reference](#)
- [Data Explorer content attributes reference](#)
- [Configure a measure's appearance](#)
- [Create a custom measure with a Formula Type assistant](#)

## Configure a measure's appearance

The way a measure is displayed in a report is configured in the Measure Configuration panel at the bottom of the Create Measure dialog box. This panel is present for both model and custom measures.

A distinct count of unique agents

Format: #,### Null: Ø

Aggregation: Sum

Content Attributes: <no attribute field>

Remove Cancel Add

### Fields in the Measure Configuration panel

Field	Description
Format	The format in which to display numbers, dates, and times.
Null	Configures what is displayed in a report when the value returned is null.
Aggregation	The consolidation method for values.
Content Attributes	The content attributes string that determine how the measure is displayed.
Content Attributes drop-down field	<p>This drop-down field to the right of the Content Attributes field lets you apply preconfigured content attributes to the measure without having to enter anything in the Content Attributes field itself. Normally you only use one of the two content attribute fields at a time. It is possible to use both fields at the same time, although the results might not be what you expect to see. Your options are as follows:</p> <ul style="list-style-type: none"> <li>▪ &lt;no attribute field&gt;—The default value. No preconfigured attributes are applied.</li> <li>▪ ATTR_CCRID_Link—Turns the contact recording ID measure into a link to the recording and colors the text blue.</li> <li>▪ ATTR_DURATION—Applies the duration format associated with the measure.</li> <li>▪ ATTR_DURATION_hhmmss—Applies the HH:MM:SS format to</li> </ul>

**Fields in the Measure Configuration panel (cont'd)**

Field	Description
	the measure.
	<ul style="list-style-type: none"> <li>■ ATTR_kpiScoreColor—Turns text to white against a background of red (#A6192E) for KPIs of 0.7 and below, yellow (#FFC72C) for KPIs between 0.7 and 1.0, and green (#279989) for KPIs 1.0 and above.</li> <li>■ ATTR_NPS_ChartColors—Applies red (#A6192E) to NPS scores of 0 to 6, yellow (#FFC72C) to NPS scores of 7 and 8, and green (#279989) to NPS scores of 9 and 10.</li> <li>■ ATTR_NPSColours—Applies red (#A6192E) to NPS range of –100 to 0, yellow (#FFC72C) to NPS range of 1 to 50, and green (#279989) to NPS range 51 to 100.</li> <li>■ ATTR_PredictiveNPS_ChartColors—Applies red (#A6192E) to NPS scores of 0 to 6, yellow (#FFC72C) to NPS scores of 7 and 8, and green (#279989) to NPS scores of 9 and 10.</li> <li>■ ATTR_Quartile_Colors—Turns text to white against a background of teal (#279989) for the first quartile, yellow (#FFC72C) for the second quartile, dark yellow (#FF9D00) for the third quartile, and maroon (#A61923) for the fourth quartile.</li> <li>■ ATTR_SentimentChartColors—Applies red (#A6192E) to negative sentiments, yellow (#FFC72C) to neutral sentiments, and green (#279989) to positive sentiments.</li> </ul>

**Content attributes**

Content attributes apply static or conditional changes to specific measures in a report.

A **static change** means that the attribute you configure applies all the time to how a measure is displayed. For example, you can apply attributes to a measure so that it is always displayed in bold text.

A **conditional change** means that the attribute is applied only when the measure's value meets certain criteria. For example, you can set a condition so that a measure is displayed in red whenever that measure is a negative number.

This section will help you define the text to enter in the Content Attribute field in the Measure Configuration panel for model or custom measures.

**NOTE** Not all content attributes are appropriate for all types of data. For example, the Maximum Decimal Places attribute, which specifies the maximum number of decimal places to display in a value, has no effect on a report that returns only integers.

**NOTE** All time data available for reporting in Data Explorer is in UTC format. Time values can be expressed on reports using other time formats by adding a time subject as a custom measure and applying the Time Zone content attribute.

The following links contain details about the available content attributes and the syntax you must follow in order to apply them correctly.

Link	Attributes
<a href="#">Content attribute syntax</a>	Describes the syntax to use when constructing a content attribute string
<a href="#">Content attributes for all data types</a>	LOCALE, NULL_TEXT, PREFIX, REPLACE, and SUFFIX
<a href="#">Content attributes for text data types</a>	BACKCOLOR, BOLD, DISPLAY_NAME, DROP_HEADING_PREFIX, FONT_FACE, FORECOLOR, HEADING, ITALIC, LINK, NOTE, STRIKETHROUGH, and UNDERLINE
<a href="#">Content attributes for numeric data types</a>	CURRENCY_CODE, CURRENCY_SYMBOL, DURATION, FIXED, INTEGER, MAX_DP, MIN_DP, MIN_INT_DIGITS, PATTERN, PERCENT, RADIX_CHAR, and TRIPLE_CHAR
<a href="#">Content attributes for date/time data types</a>	DATE_STYLE, PATTERN, TIME_STYLE, and TIME_ZONE
<a href="#">Content attributes for Boolean-like data types</a>	FALSE_TEXT and TRUE_TEXT

### Example 1

You create a report that displays how many contacts each of your agents has handled. You want to easily identify the agents who have handled between 20 and 200 contacts. Without applying any content attributes, the report looks like this:

The screenshot shows the Data Explorer interface. On the left is a table with columns 'Agent' and 'Contacts'. The 'Contacts' column contains numerical values for each agent. On the right is a 'Question' configuration panel with sections for 'WHAT', 'HOW', and 'FILTERS'. The 'WHAT' section shows 'Show Contacts...'. The 'HOW' section shows 'Group rows by Agent...' and 'without totals'. The 'FILTERS' section shows 'Limit to [limit]...'. A summary box at the bottom of the panel reads: 'I'm asking to: "Show Contacts as columns Group rows by Agent without totals ."'

Agent	Contacts
	672
Ben Bishop	369
Beth Bryant	318
Brian Burns	318
Alex Altherr	226
aaron Abel	217
Anna Alexander	190
Greg Wolff	80
Scott Hansford	24
Ashley Van Hout	20
Tom Brown	20
Brett(SiennaCreek) Kadrie	6
Aaron Coon	2
Abbas Vajihi	2
Juana Urshela	2
Mark Mironer	2
Sylvia Kline	2
Aaron Simmons	1

You decide to use the RANGE keyword and the FORECOLOR and BOLD attributes to change the color of all contact totals that fall within the 20–200 contact total range to blue in bold text.

1. In the **Question** panel, click **Contacts**. The **Measure: Contacts** dialog box opens.
2. In the **Content Attributes** field, enter the following text:

<RANGE 20:200 <BOLD; FORECOLOR blue>>

The screenshot shows the 'Measure: Contacts' dialog box. It has a title bar 'A distinct count of unique contacts.' Below it are fields for 'Format:' (set to '#,###'), 'Null:' (set to '∅'), 'Aggregation:' (set to 'Sum'), and 'Content Attributes:' (set to '<RANGE 20:200 <BOLD; FORECOLOR blue>>'). At the bottom right is a dropdown menu set to '<no attribute field>'. Buttons for 'Remove', 'Cancel', and 'Apply' are at the bottom.

3. Click **Apply**. When the attribute is processed, the numbers in the Contacts column of the report that fall between 20 and 200 inclusive appear in bold blue text.

Agent	Contacts
	672
Ben Bishop	369
Beth Bryant	318
Brian Burns	318
Alex Altherr	226
aaron Abel	217
Anna Alexander	190
Greg Wolff	80
Scott Hansford	24
Ashley Van Hout	20
Tom Brown	20
Brett(SiennaCreek) Kadrie	6
Aaron Coon	2
Abbas Vajihi	2
Juana Urshela	2
Mark Mironer	2
Sylvia Kline	2
Aaron Simmons	1
Agent3 AWS	1

**Question** View Sorting Properties

**WHAT**

Show **Contacts...**

and [measure]...

as columns ▾

**HOW**

Group rows by ▾ Agent...

without totals ▾ [that] ▾

Group [grouping]...

**FILTERS**

Limit to [limit]...

I'm asking to:  
"Show Contacts as columns Group rows by Agent without totals ."

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## Example 2

You decide to refine the report you created in Example 1 by using more ranges and colors to indicate how agents are performing. You decide to create 3 ranges:

- Low performing (red): Agents who handled between 1 and 100 contacts
- Average performing (blue): Agents who handled between 101 and 300 contacts
- High performing (green): Agents who handled 301 contacts and up

To do this you will nest multiple RANGE conditions. The colors you specify for each range are applied if any of the conditions are met.

1. In the **Question** panel, click **Contacts**. The **Measure: Contacts** dialog box opens.
2. In the **Content Attributes** field, enter the following text:

```
<RANGE 1:100 <BOLD; FORECOLOR red>; RANGE 101:300 <BOLD; FORECOLOR blue>;  
RANGE 301+: <BOLD; FORECOLOR green>>
```

A distinct count of unique contacts.

Format:  Null:

Aggregation:

Content Attributes:

3. Click **Apply**. When the attribute is processed, the numbers in the Contacts column of the report are displayed in red, blue, or green, depending on where they fall in the three ranges.

The screenshot shows the Data Explorer interface. On the left is a table with columns 'Agent' and 'Contacts'. The 'Contacts' column values are color-coded: green for 672, 369, 318, 318; blue for 226, 217, 190; and red for 80, 24, 20, 20, 6, 2, 2, 2, 2, 1, 1. On the right is the 'Question' configuration panel with tabs for 'Question', 'View', 'Sorting', and 'Properties'. The 'View' tab is active, showing options for 'WHAT' (Show Contacts...), 'HOW' (Group rows by Agent... without totals), and 'FILTERS' (Limit to [limit]...). A red circle with the number 12 is overlaid on the bottom right of the panel.

Agent	Contacts
	672
Ben Bishop	369
Beth Bryant	318
Brian Burns	318
Alex Altherr	226
aaron Abel	217
Anna Alexander	190
Greg Wolff	80
Scott Hansford	24
Ashley Van Hout	20
Tom Brown	20
Brett(SiennaCreek) Kadrie	6
Aaron Coon	2
Abbas Vajjhi	2
Juana Urshela	2
Mark Mironer	2
Sylvia Kline	2
Aaron Simmons	1
Agent3 AWS	1

### Create a view

Once you have created the question for your report, you are ready to customize how the data is visualized.

You do this on the **View** tab in the Question panel.

By default, your report is presented as a table with your chosen measures as the columns and the data as the rows. This is what is displayed as you develop your question. On the View tab you can customize your table or select another view type.

When you select a view type, you can then select from a number of view options and styling choices. The options are dependent on the type of view you select. As you select options and customize your view, your choices are previewed in the report pane as you go.

Not all view types are appropriate for your report. You will need to consider what type of chart will work best with your data. Some charts are best at showing the relationship between several pieces of information, while others can better display trends over time. Some view types can handle multiple measures, while others can display only a single measure.

### Available view types

The following are the currently available view types. Each view type has styling options to control labels, text, colors, and so on.

- [Area chart](#)
- [Bar chart](#)
- [Column chart](#)
- [Compound chart](#)
- [Gauge chart](#)
- [Headline chart](#)
- [KPI Headline chart](#)
- [KPI Rank chart](#)
- [Line chart](#)
- [Pie chart](#)
- [Scatter chart](#)
- [Table view](#)
- [Word cloud view](#)

### Area chart

Area charts show data similar to a line chart, but with the area below the line filled. Area charts are often used to display:

- The composition of a total and which parts add up to the whole
- The magnitude of change
- The difference between two or more trends

Area charts can handle multiple measures.

You can choose from one of the following chart options for your visualization.

Option	Description
Overlay	(Default) Displays the area under multiple lines to show the relationship across categories.
Overlay with Markers	Overlays the chart with dots representing individual data points on the lines.
Stacked	Displays the area under multiple lines one on top of the other to show a comparison across categories.
Stacked with Markers	Overlays the chart with dots representing individual data points on the stacked lines.

Once you have selected the desired chart option, you can then customize your chart further using these controls:

- [Legend](#)
- [Styling](#)
- [Titles](#)
- [Grid Options](#)
- [Axis Display](#)
- [Data Series Format](#)
- [Exception Display](#)

## Bar chart

Bar charts display information as horizontal bars along the Y axis, individually or stacked. This type of visualization can be used to effectively display:

- The distribution of data such as trends and ranges
- A comparison of value sets
- A trend that develops over time

Bar charts can handle multiple measures.

You can choose from one of the following chart options for your visualization.

Option	Description
2D	(Default) The bars are presented in two dimensions, one bar per measure.
2D Stacked	The bars are presented in two dimensions with multiple measures stacked to show the relationship of individual items to the whole.
Preserve Totals toggle	Displays the total value on the chart as an additional bar labeled “Total”.

**NOTE** To display the total value as an additional column, you must first select **with totals** in the Group section of the Question panel.

Once you have selected the desired chart option, you can then customize your chart further using these controls:

- [Legend](#)
- [Styling](#)
- [Titles](#)
- [Grid Options](#)
- [Axis Display](#)
- [Data Series Format](#)
- [Exception Display](#)

## Column chart

Column charts display information as vertical bars along the horizontal X axis, individually or stacked. This type of visualization can be used to effectively display:

- The distribution of data such as trends and ranges
- A comparison of value sets
- A trend that develops over time

Column charts can handle multiple measures.

You can choose from one of the following chart options for your visualization.

Option	Description
2D	(Default) The columns are presented in two dimensions, one column per measure.
2D Stacked	The columns are presented in two dimensions with multiple measures stacked to show the relationship of individual items to the whole.
Preserve Totals toggle	Displays the total value on the chart as an additional column labeled “Total”.

**NOTE** To display the total value as an additional column, you must first select **with totals** in the Group section of the Question panel.

Once you have selected the desired chart option, you can then customize your chart further using these controls:

- [Legend](#)
- [Styling](#)
- [Titles](#)
- [Grid Options](#)
- [Axis Display](#)
- [Data Series Format](#)
- [Exception Display](#)

## Compound chart

Compound charts include both columns and lines. They are useful when comparing two sets of values such as predictions and actual values. They can handle multiple measures.

You can customize your chart using these controls:

- [Legend](#)
- [Styling](#)
- [Titles](#)
- [Grid Options](#)

- [Axis Display](#)
- [Data Series Format](#)
- [Exception Display](#)

## Gauge chart

Gauge charts display the value of a single measure as a needle on a dial, like a speedometer. They are often used to display a single important measure or a trend that develops over time.

You can customize your chart using these controls:

- [Styling](#)
- [Titles](#)
- [Gauge Options](#)
- [Ranges](#)

## Headline chart

Headline charts can be used to display an important measure as a single number, without any details or other distractions. They are often grouped with other such reports on a dashboard to give an instant snapshot of the current status of your organization.

You can customize your chart using these controls:

- [Styling](#)
- [Titles](#)
- [Headline Options](#)
- [Ranges](#)

## KPI Headline chart

KPI Headline charts display a single value that represents a key performance indicator (KPI) that users would find useful to know. A KPI headline uses the KPIs configured on the KPI Configuration page (Application Management > Administration > Key Performance Indicators (KPIs)).

This chart allows you to gain insights from:

- A metric such as the average handle time, the first call resolution, and so on
- A KPI that is an aggregated set of values created from a custom formula

- Suggested thresholds that drive an action

You can customize your chart using:

- [Styling](#)
- [Titles](#)
- [KPI Headline Options](#)

## KPI Rank chart

KPI Rank charts visualize data with several sub-groups included, such as members on a team or teams in a department. For example, this chart can illustrate how well agents are meeting their goals, using colors and arrows to indicate change.

This chart allows you to gain insights from:

- A metric such as the average handle time, first call resolution, and so on
- A KPI that is an aggregated set of values created from a custom formula
- Multiple variables in a group
- Suggested thresholds that drive an action

You can customize this chart using:

- [Styling](#)
- [Titles](#)
- [KPI Rank Options](#)

## Line chart

Line charts display data in a series. This is the only chart type that can include a trendline. Line charts are often used to show the following information:

- The distribution of data such as trends, ranges, outliers, and tendencies
- A comparison of value sets
- A trend over time when using multiple axes
- The relationship between one measure and another

You can choose from one of the following chart options for your visualization.

Option	Description
Straight	(Default) Straight line from one data point to the next.
Straight with Markers	Straight line from one data point to the next with dots representing each data point.
Markers	Dots are displayed at each data point without a line connecting them.
Curved	Smooth curving line connects each data point to the next.
Curved with Markers	Smooth curving line connects each data point to the next with dots representing the data points.

Once you have selected the desired chart option, you can then customize your chart further using these controls:

- [Legend](#)
- [Styling](#)
- [Titles](#)
- [Grid Options](#)
- [Axis Display](#)
- [Data Series Format](#)
- [Exception Display](#)

## Pie chart

Pie charts display the sum of a single measure as a complete circle, and show the size of the components that make up that circle. Pie charts are most effective when you have a limited number of data categories that are part of a single group.

You can customize your chart using these controls:

- [Legend](#)
- [Styling](#)
- [Titles](#)

- [Pie Chart Options](#)
- [Exception Display](#)

## Scatter chart

Scatter charts show the correlations between sets of values that cannot be represented in a series or interval. They are useful for displaying:

- A comparison of value sets
- The distribution of trends, tendencies, ranges of information, and outliers
- The relationship between two measures

Scatter charts can handle multiple measures. If you have three measures, the scatter chart becomes a bubble chart. A bubble chart is an extension of a scatter chart used to look at relationships between three measures. Each dot in a bubble chart corresponds with a single data point, and the measures' values for each point are indicated by horizontal position, vertical position, and dot size.

You can customize your chart using these controls:

- [Styling](#)
- [Titles](#)
- [Grid Options](#)
- [Axis Display](#)
- [Data Series Format](#)

## Table view

The table view is the default view type and the most basic visualization. Tables display numeric information and can be used with multiple measures. They can be sorted in ascending or descending order by any column by clicking that column's header.

You can choose from one of the following table options for your table visualization.

Option	Description
Full	(Default) Displays the table with column and row headers.
Column Header Only	Displays the table with just column headers.

Option	Description
Row Header Only	Displays the table with just row headers.
Compact	Displays the table with both column and row headers in the smallest possible area.
Compact (Column Header Only)	Displays the table with just column headers in the smallest possible area.
Cells Only	Displays your report data without column or row headers.

Once you have selected the desired table option, you can then customize your table further using these controls:

- [Styling](#)
- [Titles](#)
- [Table Style](#)
- [Exception Display](#)

## Word cloud view

Word cloud views show the frequency of certain words by making the size of the word proportional to its frequency of use. This type of visualization is simple and easily understood, and provides specific information at a glance. However, word clouds should not be used for analysis that requires precision and accuracy. Often, the shape of the letters in the word (if they have ascenders or descenders) and the length of the word can cause some words to attract more attention than others.

**NOTE** The length of words and phrases displayed in the word cloud visualization can be configured based on your needs and business use cases. If you want to do so, contact the Cisco support team.

You can customize your word cloud using these controls:

- [Styling](#)
- [Titles](#)
- [Exception Display](#)

## Styling Options

Once you have selected your view type and view option, you can further customize your chart with styling options. This section describes each available styling option.

**NOTE** Not all styling options are available for every type of chart.

- [Axis Display](#)
- [Data Series Format](#)
- [Exception Display](#)
- [Gauge Options](#)
- [Grid Options](#)
- [Headline Options](#)
- [KPI Headline Options](#)
- [KPI Rank Options](#)
- [Legend](#)
- [Pie Chart Options](#)
- [Ranges](#)
- [Styling](#)
- [Table Style](#)
- [Titles](#)

## Axis Display

The Axis Display control includes tools for configuring the X- and Y-axes. You can configure multiple axes.

### X axis

Field	Description
X Axis	Shows or hides the X axis in your chart. The controls are displayed only if you select to show the axis.  <b>Color</b> —Select the color in which the X axis and its labels are displayed.

Field	Description
	<p><b>Tick Marks</b>—Select this check box to display tick marks beside the axis labels.</p> <p><b>Grid Lines</b>—Select this check box to display vertical X axis grid lines within the chart.</p>
Title	<p>Shows or hides a title for the X axis data. The controls are displayed only if you select to show the title.</p> <p><b>Text Box</b>—Enter the X axis title.</p> <p><b>Font</b>—Select the font and font size for the X axis title. If you choose <b>Inherited</b>, the font you selected in the Styling section is used.</p> <p><b>Orientation</b>—Choose the angle at which the X axis title is oriented. The default setting is <b>0</b> (no angle).</p>
Labels	<p><b>Labels</b>—Select if and how X axis labels are displayed. The default, <b>Auto</b>, sets the labels vertically. If you select <b>On</b>, the labels are set horizontally. If you select <b>Off</b>, there are no labels displayed.</p> <p><b>Font</b>—Select the font and font size for the X axis labels. If you choose <b>Inherited</b>, the font you selected in the Styling section is used.</p>

### Y axis (Primary, Secondary, 3, and 4)

Some charts can have multiple Y axes. In that case, there will be multiple Y axis show/hide toggles. The fields to configure these axes are the same for each.

Field	Description
Y Axis (Primary, Secondary, 3, and 4)	<p>Shows or hides the Y axis in your chart. The controls are displayed only if you select to show the axis.</p> <p><b>Color</b>—Select the color in which the Y axis and its labels are displayed.</p> <p><b>Series Color</b>—Select the color in which Y axis series is displayed.</p> <p><b>Tick Marks</b>—Select this check box to display tick marks beside the axis</p>

Field	Description
	<p>labels.</p> <p><b>Grid Lines</b>—Select this check box to display horizontal Y axis grid lines within the chart.</p> <p><b>Min</b>—Sets the minimum value for the axis.</p> <p><b>Max</b>—Sets the maximum value for the axis.</p> <p><b>Tick Interval</b>—Sets the value for the increments to be used on the axis.</p> <p><b>Minor Ticks</b>—Determines how many ticks are displayed between each numbered tick interval on the axis.</p>
Title	<p>Shows or hides a title for the Y axis data. The controls are displayed only if you select to show the title.</p> <p><b>Text Box</b>—Enter the Y axis title.</p> <p><b>Font</b>—Select the font and font size for the X axis title. If you choose <b>Inherited</b>, the font you selected in the Styling section is used.</p> <p><b>Orientation</b>—Choose the angle at which the Y axis title is oriented. The default setting is <b>270</b> (sideways).</p>
Labels	<p><b>Labels</b>—Select if and how Y axis labels are displayed. The default, <b>Auto</b>, sets the labels horizontally. If you select <b>On</b>, the labels are set horizontally. If you select <b>Off</b>, there are no labels displayed.</p> <p><b>Font</b>—Select the font and font size for the Y axis labels. If you choose <b>Inherited</b>, the font you selected in the Styling section is used.</p> <p><b>Format</b>—Select the format for the Y axis labels. By default this is set to <b>Auto</b>, where the format of the label text is automatically detected. Otherwise, choose a currency symbol or percentage.</p>

## Data Series Format

The Data Series Format control allows you to customize the color and spacing of categories and series.

**NOTE** Not every control is available for every chart option.

Field	Description
All Series	<p><b>Bar Spacing</b>—Determines the amount of space between categories and series on the chart.</p>
<Specified Measure>	<p><b>Axis</b>—Select the axis you want to format.</p> <p><b>Color</b>—Choose the color for the bar/column/line/scatter chart markers on the specified axis. For area charts, this also determines the color of the area under the line.</p> <p><b>Line Width</b>—Choose the width of the line that appears in the chart.</p> <p><b>Markers</b>—Choose the type of marker to represent each individual data point.</p> <p><b>Marker Size</b>—Choose the size of the selected marker.</p> <p><b>Type</b>—Choose how to display data, as a column, line, or curved line.</p>
Data Labels	<p>Shows or hides data labels in the chart. These labels are displayed at the end of bars or columns, or next to data markers. The controls are displayed only if you select to show the labels.</p> <p><b>Labels</b>—Choose to turn data labels on or off.</p> <p><b>Font</b>—Select the font, font size, and font color in which to display the label text. If you choose <b>Inherited</b>, the font you selected in the Styling section is used.</p> <p><b>Format</b>—Choose the format of the labels. If you select <b>Auto</b>, the format is determined by the measure.</p> <p><b>Layout</b>—Choose how labels are displayed: straight, wrapped, truncated, or angled.</p>

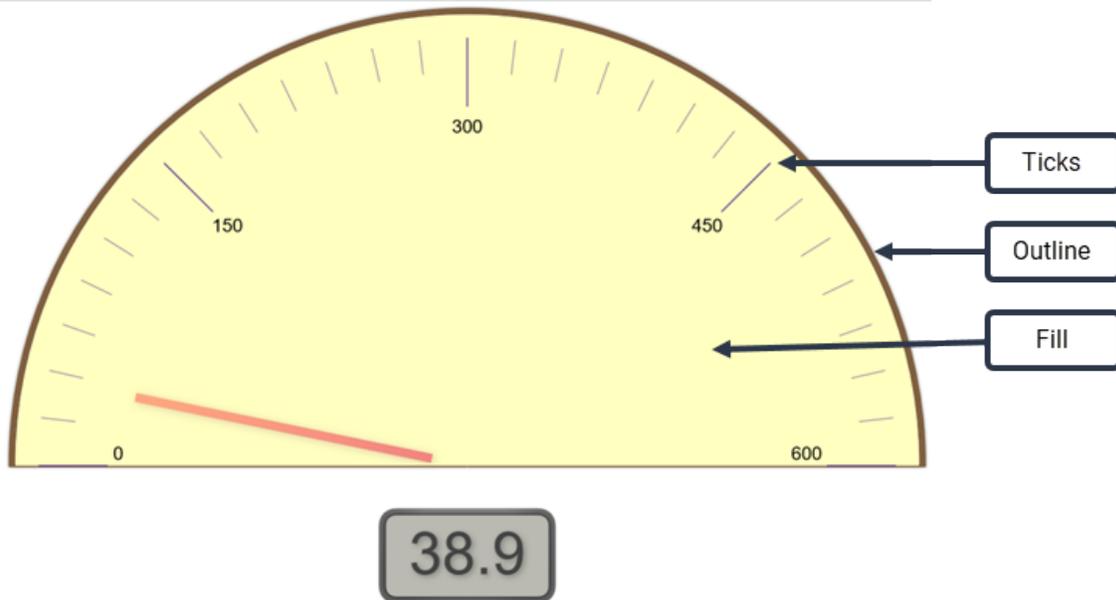
## Exception Display

The Exception Display control configures how a result with no data is displayed in your report.

Field	Description
Display	<p>Select either <b>Icon &amp; Text</b> (the default) or <b>Text</b> from the drop-down list. If you choose Icon and Text, a blue bar graph is displayed with your desired text message, like this:</p>  <p>If you choose Text, just the text message you configure is displayed.</p>
Text	<p>Enter the text string you want displayed if there is no data.</p>
Font	<p>Select the font, font style, font size, and font color in which to display the text. If you choose <b>Inherited</b>, the font you selected in the Styling section is used.</p>

## Gauge Options

The Gauge Options section allows you to customize the gauge chart.



**NOTE** A gauge can also include range indicators. This is configured using the [Ranges](#) control.

Field	Description
Colors	<p>Click the box to open the color palette.</p> <p><b>Outline</b>—Choose the color for the gauge’s outline.</p> <p><b>Fill</b>—Choose the color for the gauge’s face.</p> <p><b>Ticks</b>—Choose the color for the gauge’s tick marks.</p>
Sizes	<p><b>Outline</b>—Configure the width of the arc that outlines the gauge.</p> <p><b>Needle</b>—Configure the width of the needle.</p>

## Grid Options

The Grid Options control allows you to customize the color applied to the grid’s background and to the lines of the grid.

Field	Description
Background Color	Click the box to choose a color for the grid’s background from the color palette.

Field	Description
Line Color	Click the box to choose a color for the grid lines from the color palette.

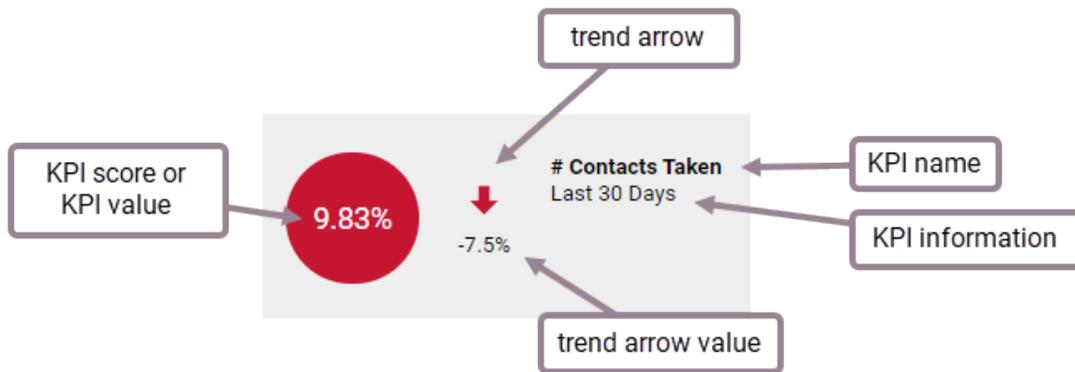
## Headline Options

The Headline Options control allows you to customize how the headline looks, and to include the upper and lower limits of the value if desired.

Field	Description
Headline Font	<p>Select the font, font style, font size, and color in which to display the headline. If you choose <b>Inherited</b>, the font and font style you selected in the Styling section is used. If you select <b>Auto</b> for the font size, the font is scaled to fit the available space.</p> <p>Click the color box to select a color for the headline text. By default, <b>Use inherited color</b> is selected. You must clear this check box to select a custom color.</p>
Maximum Size	<p>Allows you to specify a maximum size for the headline font. If you select a specific headline font size, this field defaults to <b>None</b>. If you select <b>Auto</b> for the headline font size, you can then specify a maximum size.</p>
Show Limits	<p>Shows or hides the minimum and maximum range limits for the headline value. These values are set in the <a href="#">Ranges</a> control.</p> <p>If you opt to show the limits, you can then specify the font, font style, font size, and font color for the limits text. By default, the font and font style you selected in the Styling section is used. If you select <b>Auto</b> for the font size, the font is scaled to fit the available space.</p> <p>Click the color box to select a color for the limits text. By default, <b>Use inherited color</b> is selected. You must clear this check box to select a custom color.</p>

## KPI Headline Options

The KPI Headline Options control enables you to display or hide information about a KPI.



Field	Description
Headline Display	Choose to display the KPI score or KPI value in the colored circle. More details about the KPI score or value can be viewed by hovering over the number.  <b>NOTE</b> The color of the circle is configured in the data model and is not something you can customize for your own reports. The circle can be red, yellow, or green, depending on the KPI's value.
Show KPI Name	Show or hide the KPI name.
Show KPI Information	Show or hide information about the KPI.
Show Trend Arrow	Show or hide an arrow indicating the KPI trend.
Show Trend Arrow Value	Show or hide the KPI trend value.

## KPI Rank Options

The KPI Rank Options control enables you to display or hide information about multiple KPIs.



Field	Description
Headline Display	Choose to display the KPI score or KPI value in the colored circle. More details about the KPI score or value can be viewed by hovering over the number.  <b>NOTE</b> The color of the circle is configured in the data model and is not something you can customize for your own reports. The circle can be red, yellow, or green, depending on the KPI's value.
Show KPI Name	Show or hid the KPI name.
Show KPI Information	Show or hide information about the KPI.
Show Trend Arrow	Show or hide an arrow indicating the KPI trend.
Show Trend Arrow Value	Show or hide the KPI trend value.

## Legend

The Legend control enables you to configure where the chart's legend (the explanation of what metric a color represents) is located and the size of the legend font.

Field	Description
Location	Select where the legend is displayed, at the top, bottom, or to the right of the chart. If you choose to locate it at the top or bottom of the chart, the

Field	Description
	<p>legend is arrayed horizontally; if you choose to locate it at the right side, it is arrayed vertically.</p> <p>You can also select <b>None</b> so no legend is displayed.</p>
Size	Choose the point size for the legend font.

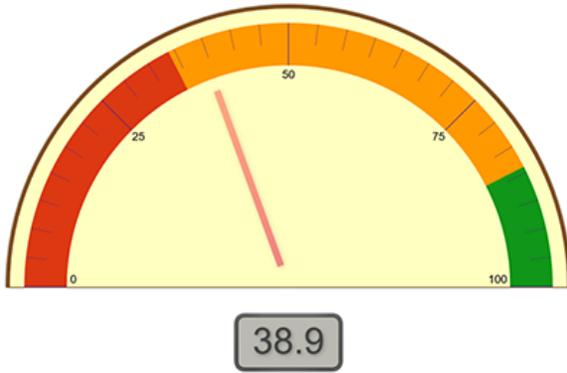
## Pie Chart Options

The Pie Chart Options control enables you to configure the labels applied to the pie chart.

Field	Description
Show Labels	Choose to show or hide labels. If you select <b>Auto</b> , the label position cannot be changed. If you select <b>On</b> , then all options can be configured.
Contents	Choose which information the label displays.
Color	Select the color for the label text.
Size	Configure the point size of the label text.
Position	<p>Select the position of the label text relative to the edge of the pie chart.</p> <ul style="list-style-type: none"> <li>▪ If the position you select is 1.1 or greater, the label appears outside the edge of the pie chart.</li> <li>▪ If the position you select is 1, the label appears outside but almost touching the edge of the pie chart.</li> <li>▪ If the position you select is less than 1, the label appears inside the edge of the pie chart.</li> </ul>

## Ranges

The Ranges control allows you to customize the values and colors used to indicate ranges. This control applies to gauge and headline charts, as shown in this graphic:



Gauge chart



Headline chart

In gauge charts, the range is indicated as a colored band on the gauge. In headline charts, the range is indicated by the color applied to the headline.

Field	Description
Minimum	Set the lowest value to include in the chart. This value is displayed in the <a href="#">Headline Options</a> if that control's Show Limits is turned on.
Low	Set the value that separates the low range from the medium range.
High	Set the value that separates the medium range from the high range.
Maximum	Set the highest value to include in the chart. This value is displayed in the <a href="#">Headline Options</a> if that control's Show Limits is turned on.
Colors check box	Select this check box to enable ranges on your chart. If you set range values and this check box is cleared, the ranges will not go into effect in the chart.
Color selection boxes	Choose the colors you want to represent the ranges you have configured. Note the position of the color boxes; they are positioned between the two values that act as the lower and upper range value the color is to represent. By default, the colors are red for low, yellow for medium, and green for high values. You can customize the colors to ones of your choosing.

## Styling

The Styling control allows you to configure the default font and background color used in the chart.

Field	Description
Text	Select the font, font style, and color in which to display text in the chart. Click the color box to select a color for the text.
Background Color	Click the color box to choose the background color to be used in the chart.

## Table Style

The Table Style control allows you to customize table headers and rows.

Field	Description
Fonts	<p><b>Table Font Size</b>—Choose the point size for all text in the table.</p> <p><b>Row Headings</b>—Choose a font style and color for the row headings. If you choose <b>Inherited</b>, the style you selected in the Styling section is used.</p> <p><b>Column Headings</b>—Choose a font style and color for the column headings. If you choose <b>Inherited</b>, the style you selected in the Styling section is used.</p> <p><b>Cells</b>—Choose a font style and color for the individual table cells. If you choose <b>Inherited</b>, the style you selected in the Styling section is used.</p> <p><b>Groupings</b>—Choose a font style and color for groupings. If you choose <b>Inherited</b>, the style you selected in the Styling section is used.</p>
Colors	<p><b>Row Headings</b>—Change the background color for row headings.</p> <p><b>Column Headings</b>—Change the background color for column headings.</p> <p><b>Cells</b>—Change the background color for table cells.</p>
Column Widths	<p><b>Row Headings</b>—Set the width in pixels of row headings.</p> <p><b>Column Headings</b>—Set the width in pixels of column headings.</p>

Field	Description
	<p><b>NOTE</b> You cannot set individual row or column headings to specific widths. All row and column headings are set to the same width with this control.</p>
Column Header Height	<p><b>Number of rows</b>—Sets the height of the column heading row in terms of row height. For example, if you set this to 2, the column heading row will be two rows tall.</p>
Position	<p><b>Horizontal</b>—Set the horizontal position of the table in the report viewer window.</p> <p><b>Vertical</b>—Set the vertical position of the table in the report viewer window.</p>

## Titles

The Titles control allows you to customize the report title, the report subtitle, and the total text.

Field	Description
Show Title	<p>Turns the chart title on and off. The title is positioned above the chart. When turned on, configuration options are displayed:</p> <p><b>Title Font</b>—Select the font, font style, font size, and color in which to display the chart title. If you choose <b>Inherited</b>, the font and font style you selected in the Styling section is used.</p> <p><b>Alignment</b>—Choose an alignment for the chart title.</p> <p><b>Act as zoom/edit hyperlink in Dashboards</b>—Select this check box to make the chart title a hyperlink that opens the chart for detailed viewing.</p>
Show Subtitle	<p>Turns the chart subtitle on and off. The subtitle is positioned beneath the chart. When turned on, configuration options are displayed:</p> <p><b>Subtitle Font</b>—Select the font, font style, font size, and color in which to display the chart subtitle. If you choose <b>Inherited</b>, the font and font</p>

Field	Description
	style you selected in the Styling section is used.
	<b>Alignment</b> —Choose an alignment for the chart subtitle.
Override Default Total Text	Allows you to override the default Total text with a custom text string. Enter your custom text string in the text box.

### Configure the report's default sort

You can configure how information in your report is sorted by default on the **Sorting** tab in the Question panel. You can sort by data or by categories, but not by both.

#### Sorting data

The Data Sorting control allows you to configure the way that a column is sorted in your table by default. You can configure only one column.

Even if you set a default sort direction, anyone viewing the table can reverse the sort by clicking the sort arrow in the column header. This control only sets the default sorting direction.

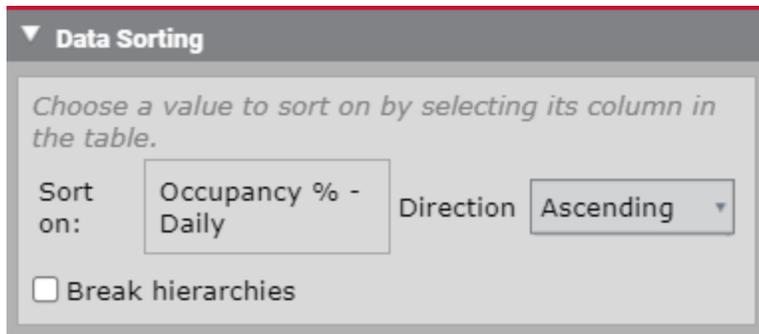
### Configure a column's default sorting direction

1. In a report with a table view type, select the **Sorting** tab in the Question panel.
2. In the report preview pane, hover over the header of the column you want to sort the table by until the sort arrows appear.



3. Click the sort arrows. The first click results in an ascending sort (an up arrow). Click again to change the sort to descending (a down arrow). Your sort choice is reflected in the Data Sorting control fields.





4. You can change the direction of the sort either using the **Direction** drop-down field or clicking the sort arrow in the column header again.
5. (Optional) Select the Break Hierarchies check box to apply this sort order to the entire table without regard to other groupings.

### Delete a column's default sorting direction

- In the **Data Sorting** control, select **None** from the **Direction** field to remove a default sorting direction from a column.

### Ordering a category

The Category Ordering control allows you to sort the members in a group and designate certain members as exceptions to the sort order so that they are displayed at the top of the list.

**NOTE** The Data Sorting control must be set to **None** in order to configure anything in the Category Ordering control.

### Configure a category's default sorting order

1. In a report with a table view type, select the **Sorting** tab in the Question panel.
2. In the Category Ordering control, all available categories (groupings) are listed. Locate the category whose sorting direction you want to configure.
3. Select the sorting direction from the **Sort** field drop-down list.

### Setting an exception

The **Exceptions** button allows you to remove one or more members of a category from the ascending or descending sorting order you configure in the Sort field. Any member designated as an exception remains at the top of the list.

## Set exceptions to the category's sorting order

1. Click **Choose Exceptions**. The **Choose Sorting Exceptions** dialog box opens.
2. Clear the **All values** check box, and then select the one or more members of the category you want to make exceptions.
3. Click **Apply**.

## Create a dashboard

A dashboard is a collection of panels—reports, lists, images, widgets, and webpages—that share a common theme or focus and can provide a high-level picture of a business situation. Dashboards are generally created to track business changes, watch for warning signs, or monitor progress.

**BEST PRACTICE** Before you create a dashboard, you should know what content you want to put on it and how that content will be arranged. The reports you want to include should already have been created. You might want to sketch out your dashboard design before you start so you have a plan to follow.

## Create a new dashboard

1. On the Data Explorer **asset browser** page, click the **New Dashboard** button. The dashboard designer opens with the Dashboard Control visible. The dashboard designer is where you add all the elements that make up your new dashboard. It has a grid to help you align and arrange panels.
2. In the **Dashboard Control**, click **Page Settings**. Enter a name for the new dashboard in the **Title** field and click **Save**.

The dashboard designer view closes and the new dashboard is displayed with the title in the upper left corner. It is now also listed in the asset browser's list of dashboards.

## Edit your new dashboard

1. If you just saved your new dashboard with a name, it is already displayed on your screen. If you haven't worked on it recently, locate it in the list of reports on the asset browser page.
2. Click **Edit Dashboard** in the upper right corner of the dashboard to open the dashboard designer.

You are now ready to add content to the dashboard using the Dashboard Control.

## About the Dashboard Control

The Dashboard Control enables you to add various types of content to a dashboard and configure how the dashboard looks. It includes 4 controls.

## Add Panels Control

The Add Panels control is the primary way to add content to your dashboard. A panel is a container for specific kinds of content:

- Content panels—lists, reports, and web pages
- Styling panels—images and text
- Parameter controls—compact member picker, member picker, number entry, text entry, and time period picker
- WFM and QM widgets

## Parameters Control

The Parameters control links (“binds”) a parameter control panel with the report that parameter control affects. For example, if you have a report that contains data for multiple agents, a Member Picker parameter control can be linked to that report so you can select which agent’s data you view on the dashboard.

## Grid Settings Control

The Grid Settings control enables you to change the grid in the dashboard designer. You can add or remove rows and columns, and change the spacing between grid lines.

## Page Settings Control

The Page Settings control enables you to configure how your dashboard looks. You can configure the header, the footer, borders, the background, and a navigation bar for the top of your dashboard.

## Add a panel

Panels are containers that are placed in the grid of a dashboard. There are several types of panels. Webpage, List, Text, and Image panels display information from outside the Data Explorer feature, while Report, Parameter, and Widget panels configure and display information generated by Data Explorer.

A report panel displays the chart or table that was configured in the report designer. A parameter panel displays specific filters for reports. You can link a parameter panel to a report panel and use the parameter panel to filter the information that is displayed in the report panel. For example, a report that displays information for a group could be linked to a Member Picker parameter panel. From the Member Picker panel, you can filter the information in the chart to display the information for each member of the team.

**BEST PRACTICE** To create a parameter for a report panel, it is advised that you create both the report panel and the parameter panel before setting the parameter.

## Add a report panel to the dashboard

1. Click **Add Panels** in the Dashboard Control dialog box.
2. Click the **Add Report** button, and then click in the grid and drag to draw a box and set the position and size of the panel.
3. Click **Edit**, and then select **Properties** from the drop-down list in the panel to configure the panel properties. The Report Properties dialog box opens.
4. On the **Selection** tab, and choose a report to display in the panel.

## Add a parameter panel to the dashboard

1. Click **Add Panels** in the Dashboard Control dialog box.
2. Select the parameter type from the Parameter Controls section.
3. Click inside the grid and drag to draw the outline of the parameter panel.

## Add a widget panel

Widget panels provide a summary and detail display of the contact center's performance statistics for the last twelve months by agent, team, and group. Summaries appear in the form of bar charts and graphs.

## Customize a Data Explorer widget

When you move your pointer over a widget toolbar, the widget configuration button becomes available. If you click this button, a roll-out panel that contains configurable widget settings opens. Once you apply changes to the settings, the changes persist each time you log in. To hide the widget settings, click the icon again.

## Prerequisites

You need the correct permissions to view and edit widgets. The required permissions vary by widget. See [Manage roles and permissions for QM and Analytics](#).

## Page location

Homepage > Edit Dashboard > Add Panels > WFM Widgets or QM Widgets

**NOTE** You need the Report Authoring permission to access the Data Explorer tab. With this permission, the following alternative path is available:  
Data Explorer > New Dashboard or Dashboard (in Dashboard list) > Add Panels > WFM Widgets or QM Widgets

## Procedures

### Add a widget to your dashboard

1. Navigate to your dashboard.
2. Click **Add Panels**.
3. Select your desired widget.
4. Click inside the grid and drag to draw the outline of the parameter panel.
5. Click **Save**. The **Preview Dashboard** page displays.
6. Click the **Settings** icon (the gear in the top right corner of the widget).
7. Configure the available fields as desired.

**NOTE** Fields vary depending on the widget. See the field descriptions below for more information on all potential fields.

8. Click **Apply**.

### Edit a widget

1. Click the **Settings** icon (the gear in the top right corner of the widget) while on the **Preview Dashboard** page.
2. Edit the available fields as desired.
3. Click **Apply**.

## Field descriptions

The fields that can appear in the panel are listed below. Only the fields that apply to a specific widget appear in that widget's panel.

Field	Description
Agent	<p>The name of the agent. The default setting for this field depends on your role:</p> <ul style="list-style-type: none"> <li>▪ If you are an agent and your role is limited in scope, your name appears in this field and the field is disabled</li> <li>▪ If your role has a broader scope, this field is enabled and you can</li> </ul>

Field	Description
	<p>choose an agent from the drop-down list</p> <ul style="list-style-type: none"> <li>▪ If you are an agent and your role has a broader scope, your name appears in this field and you can choose an agent from the drop-down list</li> </ul>
Range	<p>The date range for the historical information. The default range is:</p> <ul style="list-style-type: none"> <li>▪ Eight days for Service Queue Performance</li> <li>▪ One month for Agent Percentages, Average Time per Call, Agent Calls per Hour, Call Volume, Agent Time, Agent Time Distributions, Agent Time Totals, and Speech Statistics</li> <li>▪ The past six months for Contact Totals, Evaluation Averages, and Evaluation Ranges</li> </ul>
Chart	The type of chart you want to appear in this widget.
Eval Form	The type of evaluation form or the name of a specific evaluation form.
Group	The name of the group. The default is determined by your role.
Team	The name of the team. The default is determined by your role.
Group By	How dates are grouped. The default setting is Day.
Series 1–8	The data elements you want to appear in this widget. Each widget contains a unique set of data elements, and the number of data elements varies depending on the widget.
Service Queue	The name of the service queue. This field only appears for supervisors.
Goal	The goal for the selected service queue. Select the check box to display the goal.
Bands 1–4	<p>The bands determine the number of stars that appear in the Score field. For percentage-based scoring, the bands use integers from 0–100. The default value for each band is as follows:</p> <ul style="list-style-type: none"> <li>▪ Band 1 = 20</li> </ul>

Field	Description
	<ul style="list-style-type: none"> <li>▪ Band 2 = 40</li> <li>▪ Band 3 = 60</li> <li>▪ Band 4 = 80</li> </ul> <p><b>EXAMPLE</b> If the agent scores 61 or higher, four stars appear in the Score field. If the agent scores between 41 and 60, three stars appear in the Score field.</p> <p>For point-based scoring, the bands use integers. The minimum value for this range is determined by the total of all minimum values that are assigned to questions. The maximum value for this range is determined by the total of all maximum values that are assigned to questions.</p>
Metadata Key	<p>The metadata associated with the score. The drop-down list displays all defined metadata keys. The metadata that appears in this drop-down list is defined by the administrator. The default value = All.</p> <p>Select a metadata key and value to filter scores based on specific metadata values.</p>
Metadata Value	<p>The value associated with the metadata key. Wildcards are supported. The asterisk wildcard ( * ) represents any number of characters and the question mark wildcard ( ? ) represents one character.</p>

## Related topics

- [Manage roles and permissions for QM and Analytics](#)
- [Create a dashboard](#)
- [Add a panel](#)

### Available QM widgets

The following widgets contain statistics for QM.

- [Contact Goal Progress widget](#)
- [Contact Totals widget](#)

- [Current Best Performers widget](#)
- [Evaluation Averages widget](#)
- [Evaluation Ranges widget](#)
- [Gamification Score widget](#)
- [Recent Evals Performed widget](#)
- [Recent Evaluations widget](#)
- [Recording Surveys widget](#)

## Prerequisites

- You need the View QM Dashboard permission to view your own data.
- You need the Administer Dashboards permission to edit dashboards. See [Manage roles and permissions for QM and Analytics](#).

## Page location

Data Explorer > New Dashboard or Dashboard (in Dashboard list) > Add Panels > QM Widgets

Homepage > Edit Dashboard > Add Panels > QM Widgets

### ***Contact Goal Progress widget***

The Contact Goal Progress widget displays the current completion status of contact goal evaluations, calibrations, and reviews. You can choose to display data for all active goals for a single evaluator or to display data for all evaluators for a single goal.

Data Element	Description
Name	The name of the evaluator for the current goal.
Progress	Displays progress as one of the following metrics: <ul style="list-style-type: none"> <li>▪ Completed—The number of contact goal tasks that the evaluator has completed out of the total required.</li> <li>▪ Remaining—The number of contact goal tasks remaining for the evaluator to complete.</li> </ul>

**Contact Totals widget**

The Contact Totals widget displays the current contact totals for the selected group, team, or agents. The displayed data is based on results from a specific evaluation form or type of evaluation form. For more information about this report, see [Contact Totals Graph](#).

**Current Best Performers widget**

The Current Best Performers widget displays the current list of your best performing agents. This widget allows you to use a gamification strategy that rewards agents for performing desired tasks. The gamification technique leverages people’s natural desire for competition, achievement, and status.

The Recent Evaluations widget displays the following data elements.

Data Element	Description
Agent	The agent’s first and last name.
Score	The score based on evaluated calls that contain the specified metadata value for the specified date range. A star appears for each scoring band.  <div style="background-color: #006666; color: white; padding: 2px;"><b>EXAMPLE</b> For percentage-based scoring, four stars appear in the Score field if the agent’s score is between 61 and 80.</div>
ACD Status	The status of ACD agents. This is the current ACD Status in Workforce Management.  <div style="background-color: #0066b3; color: white; padding: 2px;"><b>NOTE</b> This field appears only if you have both QM and WFM.</div>

**Evaluation Averages widget**

The Evaluation Averages widget displays the current evaluation averages for the selected group, team, or agents.

**Evaluation Ranges widget**

The Evaluation Ranges widget displays the current evaluation ranges for the selected group, team, or agents. It displays the following data elements.

Data Element	Description
Below	The number of evaluated contacts that are below expectations.
Meets	The number of evaluated contacts that meet expectations.
Exceeds	The number of evaluated contacts that exceed expectations.

**Gamification Score widget**

The Gamification Score widget displays metrics based on the following performance categories:

- QM Quality Score
- WFM Adherence Score

**NOTE** The WFM Adherence Score is only available when WFM is activated.

In the Gamification Score widget, agents can see their current level and their progress towards the next level. They can choose which performance category to display: QM Quality Score or WFM Adherence Score.

When agents configure the Gamification Score widget, it displays a badge and a progress bar. The badge has a number next to it: the badge symbolizes the level the agents have achieved, and the number next to it indicates the level they have achieved for the performance category they have selected. The progress bar indicates how close agents are to the next level.

Supervisors and administrators can configure the Gamification Score widget to display a single agent (that would look identical to the agent's Gamification Score widget) or to display all agents for a specific performance category.

The Gamification Score widget displays the following data elements.

Data Element	Description
Group	The name of the group.
Team	The name of the team.
Agent	The agent's first and last name.
Badge	The badge that the agent has earned, which is based on the number of points that the agent currently has accumulated.

**Recent Evals Performed widget**

The Recent Evals Performed widget displays the results for the most recent evaluations that you performed for the selected group, team, or agents. You can select a point-based or percentage-based evaluation form from the Eval Form drop-down list.

Data Element	Description
Last	The point or percentage score for the last evaluation that you performed. The widget determines the last evaluation by the date and time of the

Data Element	Description
	evaluation.
Last 5	The average point or percentage score for the last five evaluations that you performed. The widget determines the last five evaluations by the date and time of the evaluations.

**Recent Evaluations widget**

The Recent Evaluations widget displays the results for the most recent evaluations that all evaluators performed for the selected group, team, or agents. You can select a point-based or percentage-based evaluation form from the Eval Form drop-down list.

**NOTE** When an agent moves from one team to another, the agent’s contacts from the original team, and the evaluations associated with those contacts, stay with the original team. Contacts and their evaluations from the agent’s second team stay with the second team.

Data Element	Description
Last	The point or percentage score for the last evaluation. The widget determines the last evaluation by the date and time of the evaluation.
Last 5	The average point or percentage score for the last five evaluations. The widget determines the last five evaluations by the date and time of the evaluations.

**Recording Surveys widget**

The Recording Surveys widget displays the results for the most recent post-call surveys that customers have submitted for the selected group, team, or agents. You can select one or all of the survey forms from the Survey Form drop-down list.

Data Element	Description
Last	The score for the last survey submitted. The widget determines the last survey by the date and time of the survey response.
Last 5	The average survey score for the last five surveys submitted. The widget determines the last five surveys by the date and time of the survey responses.

## Available WFM Widgets

The following widgets contain statistics for WFM.

- [Agent Call Volumes Widget](#)
- [Agent Calls per Hour Widget](#)
- [Agent Percentages Widget](#)
- [Agent Time Distributions Widget](#)
- [Agent Time Totals Widget](#)
- [My Schedule Widget](#)
- [Real Time Adherence Widget](#)
- [Service Queue Performance Widget](#)

## Prerequisites

- You need the View WFM Dashboard permission to view your own data.
- You need the View WFM Dashboard, Edit Schedules, and View Schedules permissions to view the data of agents in your scope.
- You need the Administer Dashboards permission to edit dashboards. See [Manage roles and permissions for QM and Analytics](#).

## Page Location

Data Explorer > New Dashboard or Dashboard (in Dashboard list) > Add Panels > WFM Widgets

Homepage > Edit Dashboard > Add Panels > WFM Widgets

### ***Agent Call Volumes Widget***

The Agent Call Volumes widget displays an agent's call volumes for the selected date range. Data can be grouped by day or by month. If you group data by day, the range is one month. If you group data by month, you can select a range of two, three, six, or twelve months. Hover your pointer over a data point in the chart to display a screentip containing the exact value for the data point. Agents can view their own handled calls and transferred calls. Supervisors, schedulers, or administrators can view handled calls and transferred calls for agents within their scope. See [Customize a Data Explorer widget](#) to learn more about the fields for this widget.

You can choose to display the following data elements from the Series drop-down list:

**Calls Handled** — The number of contacts that the service queue or agent handled during the interval.

**Calls Transferred** — The number of ACD calls the agent transferred during the interval.

**NOTE** A zero in the graph indicates the agent logged in during the day but took no calls. No data in the graph indicates that the agent did not log in on that specific day.

### ***Agent Calls per Hour Widget***

The Agent Calls per Hour widget displays the average number of ACD calls per hour an agent handles over the selected date range. Data can be grouped by day or by month. If you group data by day, the range is one month. If you group data by month, you can select a range of two, three, six, or twelve months. Hover your pointer over a data point in the chart to display a screentip containing the exact value for the data point.

A call is counted in the schedule interval in which the agent answers it. You can choose to display the **Calls per Hour** data element from the **Series** drop-down list. **Calls per Hour** is the average number of ACD calls per hour an agent handles. See [Customize a Data Explorer widget](#) to learn more about the fields for this widget.

**EXAMPLE** If an agent answers a call at 10:58 and completes the call at 11:03, that call is counted in the 10:00–10:59 schedule interval, not the 11:00–11:59 schedule interval.

### ***Agent Percentages Widget***

The Agent Percentages widget displays your occupancy ratio, your percentage of calls answered, or both for the selected date range. Data can be grouped by day or by month. If you group data by day, the range is one month. If you group data by month, you can select a range of two, three, six, or twelve months. Hover your pointer over a data point in the chart to display a screentip containing the exact value for the data point.

You can choose to display either or both of the Occupancy % and Utilization % data elements in any order from the Widget Configuration panel. **Occupancy %** is the percentage of in-session time that the agent spends in active contact handling states (for example, on incoming calls, in wrap-up activity, on outbound calls). **Utilization %** is the percentage of offered calls that the agent answered. See [Customize a Data Explorer widget](#) to learn more about the fields for this widget.

### ***Agent Time Distributions Widget***

The Agent Time Distributions widget displays the average time you spent in a specific ACD state for the selected date range. Data can be grouped by day or by month and is expressed in seconds. If you group data by month, you can select a range of one, two, three, six, or twelve months. Hover your pointer over a data point in the chart to display a screentip containing the exact value for the data point.

You can choose to display up to three of the following data elements in any order.

Data Element	Description
Average Processing Time	<p>The average amount of time an agent was in ACD states related to processing a call. The ACD states included in this average depend on which of the following ACDs your system uses:</p> <ul style="list-style-type: none"> <li>▪ Unified CCE or Unified CCX—The average amount of time an agent was in the Talking, On Hold, Work Ready, and Work Not Ready states.</li> <li>▪ Avaya AACC—The average amount of time an agent was in the Talking, On Hold, and Break (Work) states.</li> <li>▪ Avaya CMS—The average amount of time an agent was in the Talking, On Hold, and After Call Work states.</li> </ul>
Average Talk Time	<p>The average amount of time an agent was on incoming ACD calls, beginning when the call is answered and ending when the call is disconnected, including hold time.</p>
Average Hold Time	<p>The average amount of time the agent placed calls on hold, including hold time for transfers and conferences.</p>
Average Work Time	<p>The average amount of time an agent spent in the Work state immediately following an ACD call.</p>
Average Ready Time	<p>The average amount of time an agent was logged in and available to accept ACD calls.</p>
Average Not Ready Time	<p>The average amount of time an agent was logged in but not available to take ACD calls.</p>

### ***Agent Time Totals Widget***

The Agent Time Totals widget displays the total time an agent spent in specific ACD states for the selected date range. Data can be grouped by day or by month for ranges between 1 and 12 months and is presented in HH:MM:SS format. Hover your pointer over a data point in the chart to display a screentip containing the exact value for the data point.

You can choose to display up to eight of the following data elements in any order.

Data Element	Description
Total Processing Time	<p>The total amount of time an agent was in ACD states related to processing a call. The ACD states included in this average depend on which of the following ACDs your system uses:</p> <ul style="list-style-type: none"> <li>■ Unified CCE or Unified CCX—The total amount of time an agent was in the Talking, On Hold, Work Ready, and Work Not Ready states.</li> <li>■ Avaya AACC—The total amount of time an agent was in the Talking, On Hold, and Break (Work) states.</li> <li>■ Avaya CMS—The total amount of time an agent was in the Talking, On Hold, and After Call Work states.</li> </ul>
Total Talk Time	The total amount of time an agent was on incoming ACD calls, beginning when the call is answered and ending when the call is disconnected, including hold time.
Total Hold Time	The total amount of time the agent placed calls on hold, including hold time for transfers and conferences.
Total Work Time	The total amount of time an agent spent in the Work state immediately following an ACD call.
Total Ready Time	The total amount of time an agent was logged in and available to accept ACD calls.
Total Not Ready Time	The total amount of time an agent was logged in but not available to take ACD calls.
Total In Service Time	The total amount of time an agent was in the Ready, Talk, Hold, and Work state. Default option for Series 1 in the Widget Configuration panel.
Total Login Time	The total time during the period the agent was logged into the ACD. Default option for Series 2 in the Widget Configuration panel.

***My Schedule Widget***

The My Schedule widget displays a summary of an agent's schedule for one day with the default being today.

**NOTE** If a project or exception activity has a note associated with it, a shaded triangle appears in the upper right corner. Hover over the activity to view the note.

The widget also shows the agent's current adherence (A) and conformance (C) percentages for the day. For information about how the adherence and conformance percentages are calculated, see [Real Time Adherence Widget](#).

If the agent is not scheduled for any activities, My Schedule displays the message, "Nothing Scheduled On This Day."

You can view past and future schedules one day at a time by clicking backward and forward through the calendar pages.

The activity start and end times shown are based on the Display Time Zone configured for the agent by the administrator, while the date is based on the WFM server's time zone. If the schedule crosses midnight, the start times for activities before midnight are highlighted. For more information about time zones, see About Time Zones.

Agents cannot modify the My Schedule widget. Supervisors can modify the widget by selecting the agent whose schedule is displayed in the widget and renaming the widget as desired.

### ***Real Time Adherence Widget***

The Real Time Adherence widget displays real time adherence data for selected agents. The widget updates data every 30 seconds. Click the **Display Summary** check box to show a summary of results at the top of the table. Click the Right Arrow icon in the top right corner of the widget to go to the Agent's Schedules page. See [Customize a Data Explorer widget](#) to learn more about the fields for this widget.

You can display selected agents and series in any order. Click, drag, and drop an individual agent or series to the intended location in the list.

Sort the table rows in ascending or descending order by clicking the column header.

**NOTE** The Real Time Adherence Widget does not update at the same time as the WFM Adherence drawer on the Agent Explorer page. See View Agent Adherence and Conformance.

### ***Service Queue Performance Widget***

Only supervisors, schedulers, and administrators can access the Service Queue Performance widget. It displays the real time service level performance (% Service Level) for the selected service queue and optionally the goal (forecasted) service level performance as well. The widget updates data twice hourly: on the hour and at 30 minutes past the hour. You can group data by day or by interval for ranges between 8 and 180 days.

The service level percentage is the percentage of actual calls answered for each interval within the service threshold time.

To compare the actual service level performance (%SVL-A) with the goal (forecasted) service level performance (%SVL-G), select Interval from the Group By drop-down list, and then select the Goal check box in the Widget Configuration panel.

### Add a parameter

A parameter links (binds) values between a parameter panel and a report panel on a dashboard. When these two elements are linked, you can select or enter values that will dynamically filter the information displayed in the report panel. You can use a parameter to control one or multiple reports.

### Bind a parameter panel to a report panel

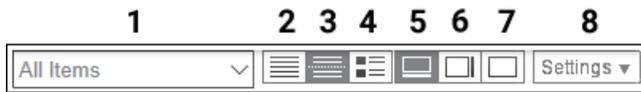
1. Click **Parameters** in the Dashboard Control dialog box. The Parameter Bindings dialog box opens.
2. Click the **Add a New Parameter** button in the bottom left corner of the Parameter Bindings dialog box. A new parameter is added to the list.
3. Click the **Bindings** field and select the data category to bind the report panel to the parameter.
4. Click **Add** to add a Binding field.
5. In the new Binding field, select the parameter panel to filter the report by.
6. Click **Apply** to create the parameter binding.

When the parameter panel is bound to the Report panel, you can control what information the report panel displays. For example, to display information for a single member of the group, clear the All Values check box in the parameter panel, and select the check box for the member you want to see.

### Manage the list of Data Explorer dashboards and reports

Click **Data Explorer** on the Webex WFO toolbar to open the Data Explorer asset browser page. The asset browser page contains a list of dashboards and reports (“items”).

The Data Explorer toolbar enables you to select a predefined filter to limit which items appear. For example, you can opt to list only reports and dashboards you shared or those you created. You can also search for specific reports or dashboards by name, description, or tag. The asset browser page can display reports and dashboards as a flat list, a categorized list, or generic thumbnail icons. To change the display, click the desired icon in the toolbar.



The fields and buttons on the Data Explorer toolbar are as follows.

Field / Button	Description
1 All Items drop-down list	Select the items you want to be displayed on the page from the drop-down list.
2 Flat List button	View items on the page in a flat list.
3 Categorized List button	View items on the page grouped as dashboards or reports.
4 Thumbnails button	View items on the page as thumbnails. The pictures in the thumbnails represent either a dashboard or a report, not the actual look of the item.
5 Bottom Preview Panel button	Display the item preview panel at the bottom of the page.
6 Right Preview Panel button	Display the item preview panel at the right side of the page.
7 Hide Preview Panel button	No item preview is displayed.
8 Settings drop-down list	Configure settings for the page. This controls how items are sorted on the page and which properties are displayed for each item.

### Share reports and dashboards

After you create a report or dashboard, you can allow other users to access it. When sharing a report or dashboard, you control the permissions that allow other users to view, copy, or edit it.

**NOTE** Reports and dashboards show only data that is within your scope. For example, if another user shares a report comparing the average evaluation scores of Team A and Team B, but you have scope over just Team A, the report does not show any data for Team B.

You can share only the reports and dashboards you own. To share one that has been shared with you, create a copy of it.

## Copy a report or dashboard shared with you

1. Right-click the report or dashboard.
2. Click **Copy**. Data Explorer adds a copy of the report or dashboard and makes you its owner.

## Share a report or dashboard

1. Right-click the report or dashboard.
2. Click **Share**. The Sharing dialog box opens.
3. Select the level of permission that you want to assign to other users. The following table describes the permission levels available.

Permission	Description
None	Other users cannot view the item.
View	Other users can view the item.
Explore	(Reports only) Other users can change filters, groups, and other report elements but cannot save changes.
Save As	Other users can make changes and save a copy of the item. They cannot overwrite the original item.
Edit	Other users have full permission to change and overwrite the original item.

4. Click **OK**.

The Shared To column on the asset browser page displays with whom the item is shared.

## Tag reports and dashboards with roles

If you want only users with a specific role to be able to access a shared report or dashboard, you can tag it with the name of the desired role.

**NOTE** You can tag only reports or dashboards that you own. To become the owner of a report or dashboard shared with you, copy it.

**NOTE** There are two types of role: ones created and administered through WFM, and ones created and administered through Webex WFO. When tagging a role, you must identify where that role is administered by using a prefix.

- If the role is created and administered through Webex WFO, prefix the role with **c1\_role\_**.
- If the role is created and administered through WFM, prefix the role with **wfm\_role\_**.

**NOTE** If the role does not include access to Data Explorer, a tagged dashboard becomes the default homepage for people with this role.

### Tag a report or dashboard with a role

1. Right-click the report or dashboard.
2. Click **Tag**. The Tags dialog box opens.
3. In the **Add Tag** field, type the exact name of the role with the appropriate prefix, **c1\_role\_** or **wfm\_role\_**.

To add a single role, enter the name.

**EXAMPLE** **wfm\_role\_Agent**

To add a role whose name is multiple words separated by spaces, enclose the tag in double quotes.

**EXAMPLE** **“c1\_role\_East Coast Team Leader”**

To add multiple roles at the same time, enter them one after the other separated by a space.

**EXAMPLE** **wfm\_role\_Supervisor c1\_role\_Evaluator “c1\_role\_East Coast Agent”**

**IMPORTANT** If what you type and what is configured on the Roles page do not match, the tag will not work.

4. Click **Add Tag**.
5. Click **OK**.

### Search the asset browser by tag

You can search the asset browser by any tag. If you are searching by product tag, you can only see tags for products you are licensed to use. For example, if you only have a QM license, you will only see predefined items that have a QM tag, not items that have a WFM or an Analytics tag.

**NOTE** Depending on the WFM license you have, WFM fields are tagged with WFM (for new WFM) or CWFM (for classic WFM).

## Search for reports and dashboards by tag

1. Navigate to Data Explorer.
2. Click the search icon, and then select **Search tags**.
3. In the search field, type the desired tag. Data Explorer shows only reports and dashboards tagged with this value.

**NOTE** If the tag name is multiple words separated by spaces, enclose the name with double quotes. For example, to search for **Agent East Coast**, enter “**Agent East Coast**”.

## Setting your homepage

Data Explorer includes many predefined reports and dashboards that any user can set as a homepage. For example, if you use WFM, you can set the Widgets - WFM Only dashboard as your homepage. If you use QM, you can set the Widgets - QM Only dashboard as your homepage. Data Explorer tags default reports and dashboards by product, so alternatively you can search for relevant reports and dashboards by product tag: WFM, CWFM, QM, or Analytics.

**NOTE** Dashboards and reports show only data that is within your scope. For example, if another user shares a report comparing the average evaluation scores of Team A and Team B, but you have scope over just Team A, the report does not show any data for Team B.

You can set only one dashboard or report as your homepage at time.

## Set a dashboard or report as your homepage

1. Navigate to Data Explorer.
2. Right-click a dashboard or report listed in the asset browser.
3. Click **Set as homepage**. Data Explorer marks the dashboard or report with a red homepage icon.

## Export reports

Data Explorer allows you to export reports. Each report page has an **Export as** button. This allows you to export the data from a report in CSV or XLSX format, or as an image.

**IMPORTANT** To export the results of a report, you must save the filter criteria and any other edits before exporting.

## Export a report

1. Click the name of the report in the Reports list. The report page opens.
2. Click **Export as**. The Export Report dialog box opens. There are two options available at the top right of the dialog box, Data and Image. Data is selected by default.
3. Select **Data** or **Image** depending on which you want to export.
4. Select the file format for the export.
5. Click **Next**. When the data is ready, a download link appears.
6. Click the link to download the file.
7. Click **Close** after your download is complete.

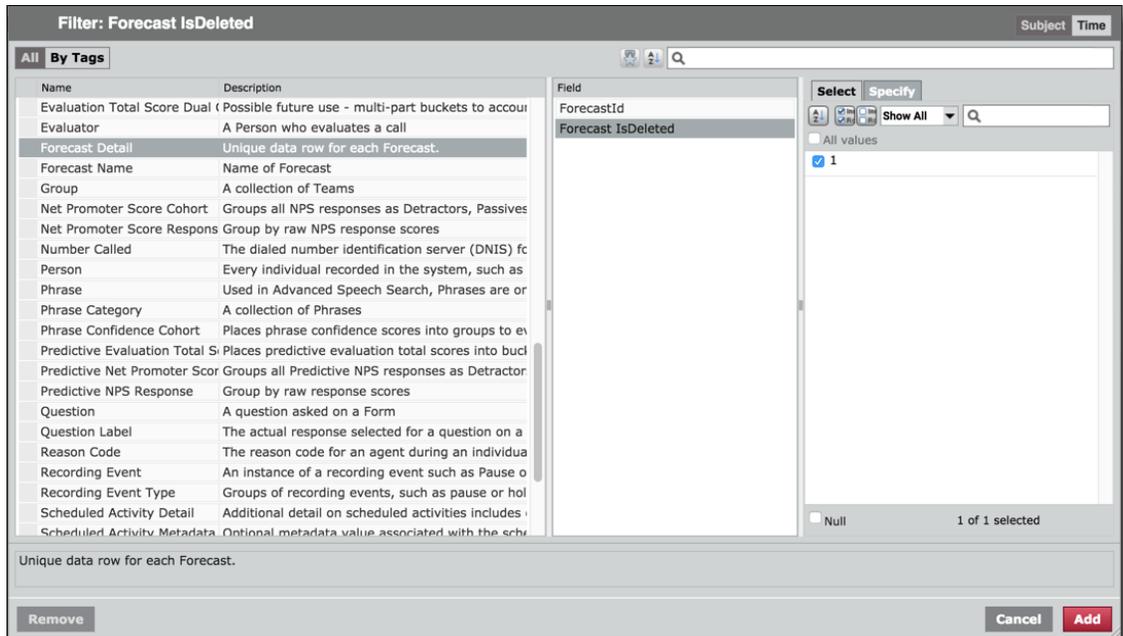
## Filter deleted records

The reporting database for Data Explorer accumulates data over time to allow historical analysis of that data. Records that would normally be deleted from a database are not actually removed from Data Explorer. Instead, these files are flagged to indicate their deleted status. To ensure accurate results in reporting, you must apply a filter to remove the deleted records from your questions. The following table displays three data types that require these filters and the corresponding subjects and fields you must use to filter out the deleted records:

Subject Name	Field
Agent Adherence Report	Agent Adherence Report IsDeleted
Agent Schedule	Schedule Activity IsDeleted
Forecast	Forecast IsDeleted

## Filter deleted records

1. In the Filters section of the Question tab, click **[limit]**. The Select Filter dialog box opens.



2. Select the appropriate subject name according to the previous table.
3. Select the appropriate field for that subject name according to the previous table.
4. Clear the **All values** check box.
5. Select the **1** check box. In this filter, 1 means “true.”
6. Click **Add**. This first sets the report to include only deleted values.
7. In the Filters section of the Question tab, click the **is** drop-down menu in the filter and select **is not**. The deleted records are removed from the report.

## Configure enterprise KPIs

An enterprise key performance indicator (KPI) is more than just a single metric or measure, such as Average Handle Time, Adherence, or Calls Taken. To be a KPI, those numbers must be given further definition in order to tell their story and make an impact on enterprise performance management. KPIs require the following to be meaningful:

- A **goal**, so that you understand what the organization is trying to achieve.
- A **score**, so that you understand whether the goal was attained. Very often, scores are derived by using a simple ratio of metric divided by goal, but in other cases a more complex formula is required to assess achievement. For example, sometimes a curved rather than linear scale aligns better with the reality of performance and what is considered a “good” or “bad” score.
- A **prior period**, against which to evaluate performance over time. Are we doing better or worse than we did last month?
- A **dimensional context in which to be evaluated**. Is this for a group? A team? A service queue? An agent?

Each of these things, when properly configured, can quickly answer questions like, “Did the Eastern Team meet the company’s adherence goals for last month? Have they improved from the previous month?” or “Last month was tough on quality for the Database service queue due to storms in the Northeast. Now that the weather has settled down, how have they improved?”

### KPI properties

There are nine properties configured that contribute to an enterprise KPI.

Property	Description
KPI Actual	The actual measure value. This is the same value that is returned if the measure is used without the KPI visualizations.
KPI Goal	The goal for the KPI, as defined on the Key Performance Indicators (KPIs) page (see <a href="#">Configure KPIs</a> ).
KPI Score	The score for the KPI, based on the actual and goal values. The specific formula that governs this is built directly into the data model and cannot be changed.
KPI Actual Delta %	The percentage of change between the actual value of the measure specified in the report and the actual value of the measure from the prior period.
KPI Actual Delta	The difference in value between the actual value of the measure specified in the report and the actual value of the measure from the prior period.
KPI Prior Actual	The prior value of the measure or metric at the time specified by the KPI

Property	Description
	Time Period Display property.
KPI Prior Score	The score attained by the prior actual value in comparison to the goal.
KPI Score Delta	The actual variance between the prior score and the current score.
KPI Time Period Display	The time period configured on the Key Performance Indicators (KPIs) page (see <a href="#">Configure KPIs</a> ).

### Configure the settings

KPIs are configured at the company level on the **Key Performance Indicators (KPIs)** page in Application Management by an administrator (see [Configure KPIs](#)). This is done so that all KPIs can be compared on an even scale—the ones defined by the company for goals, dimensions, and time. That way, all results can be compared to one another with some certainty.

The Key Performance Indicators page is connected to the Data Explorer data library, from which it gets its list of available KPIs, their default values, and the groups, teams, and service queues associated with them. Once configured, those settings are read by any Data Explorer report that uses KPIs. If the KPI settings are changed, all KPI reports and dashboards are automatically updated to reflect those changes.

A KPI is hierarchical in nature. That is, when you set a goal and do not specify a group, team, or service queue, the goal applies to all groups, teams, and service queues in your entire contact center. If you specify a group, the goal applies only to that group and the teams that belong to it. If you specify a group, team, and service queue, the goal applies to the team belonging to the group and to the service queue, as they do not have a direct relationship. A more specific goal overrides a less specific goal.

**NOTE** Not all KPIs can be configured for all three available dimensions.

KPIs all come with default goals and time periods so that they will work without error. We recommend those goals be changed to suit your business' unique requirements and business goals.

### Implement the reports

Any report can be a KPI report, as long as it uses one or more measures that have been configured to be KPIs. When configuring the report, you can choose to group by KPI Values (available in the Subject view) to show all of the configured properties for each KPI. The properties can be filtered so only selected properties are shown in the report.

KPI reports can be filtered like any other report and can be grouped by any of the dimensions that were configured on the Key Performance Indicators page.

## Available KPI measures

The following KPI measures are available to be used in Data Explorer reports. You can filter the list of measures by the KPI tag to locate them easily when adding a new report in Data Explorer.

KPI	Description
# Contacts Taken	A count of the number of contacts that were answered.
Adherence %—Daily	Percentage of time agents are in adherence to their planned work schedules.
Average Contact Time	The sum of contact seconds divided by the number of contacts.
Average Handle Time—Agent by Interval and Service Queue	Average handle (contact, hold, and work) time for contacts handled this interval for the agent/queue.
Average Speed of Answer—Service Queue by Interval	Average speed of calls answered in seconds by service queue by interval.
Conformance %—Daily	The conformance percentage that indicates how closely the agent conforms to the scheduled amount of time for the day.
Contacts—Negative Sentiment %	Percentage of contact IDs with a negative sentiment score among those contacts with a sentiment score.
Contacts—Positive Sentiment %	Percentage of contact IDs with a positive sentiment score among those contacts with a sentiment score.
Contacts Abandoned—Service Queue by Interval	The total number of contacts abandoned for the service queue.
Evaluation Score—Average	The average of the score per evaluation as a key performance indicator.
NPS	<p>The computed net promoter score, where results can range from –100 to 100. The score comes from the NPS question, “On a scale of 1 to 10, how likely is it that you would recommend our organization to a friend or colleague?”</p> <p>0–6 range = detractors 7–8 range = passives 9–10 range = promoters</p>

KPI	Description
	$\text{NPS} = \frac{(\text{number of promoters} - \text{number of detractors})}{(\text{number of respondents})} \times 100$
Utilization %—Daily	The average percentage of processing time per day for the agent.

## Standard reports

Webex WFO comes with a number of standard reports.

- QM standard reports provide evaluation, survey, and system information.
- WFM standard reports provide data related to forecasts, schedules, and operation.

### Run a standard Webex WFO report

Reporting allows you to run, view, and export informational reports on Webex WFO data. Your administrator determines which reports are available to you by product, report type, and role. The Reporting toolbar gives you access to standard QM reports and reports you have saved for reuse.

**BEST PRACTICE** Before you run a standard report, know what data you need to access and how best to filter it. Use the smallest possible date range, and use many targeted searches as opposed to a single large search. You can also use group, team, and agent filters to get specific data without running a report for all groups or teams in your system. Let the report finish running before requesting a new report.

### Prerequisites

The proper permissions for the report you want to run. The permissions you need can vary depending on the report. See [Manage roles and permissions for QM and Analytics](#) for the full list of Reporting permissions.

### Page location

Reporting

## Procedures

### Run a report

1. Click **QM** or **Saved** from the Reporting toolbar.
2. Click the report name to display the report's setup page.
3. Complete the report setup information. Choose the date, criteria, format, and fields to be included in the report.

**NOTE** If the report allows you to choose the fields that appear in the report and their order, when you click **Run Report** or **Save As**, the selected fields become the default fields for the report for you. Other users do not see your choices when they run the report.

4. (Optional) Choose whether to enable recurrence for the report.

(Optional) Choose whether to email recurring reports to email addresses you enter in the **Destination** section. At least one email address is required. Email addresses are separated by semicolons. If Webex WFO is configured to email reports, you can set a report to run automatically at specified intervals for a specified length of time or indefinitely.

**EXAMPLE** john.smith@example.com;mary.jones@example.com

**NOTE** There is a 10 MB attachment size limit for reports that are emailed. The size of the generated report depends on the amount of data included (the number of agents or service queues, for example). To check the size of the report, generate it manually as a PDF or CSV first. If the report is large, break it into smaller reports to ensure it meets the size limitation.

The email includes your email address in the From field (as the user who scheduled the report). If your email address is not available, the email address will be <your first name>.<your last name>@automated.report.

**NOTE** To use Recurrence, you must save the report for future use.

5. Click **Run Report** to run the report immediately.

### Save a report

1. Click **QM** from the Reporting toolbar.
2. Click the report name to display the report's setup page.
3. Complete the report setup information. Choose the date, criteria, format, and configure the fields to be included in the report.

4. (Optional) Choose whether to enable recurrence for the report.
5. Click **Save As** to save the report for future use.
6. Enter a name for the report in the Save As text field then click **Save**.
7. When you save a report's configuration, you can access it by clicking **Saved** in the Reporting toolbar and then clicking the report name.

## Related topics

- [Manage roles and permissions for QM and Analytics](#)—Learn about the permissions required for running and accessing reports.

## QM standard reports

Quality Management provides evaluation, system, and survey reports.

**NOTE** Scores are rounded up for individual sections in evaluation and survey forms. However, in reports that show section averages for agents, teams, and groups, the section scores are first added and averaged before being rounded up. As a result, the average displayed in reports will vary slightly from the number calculated by adding up section scores as displayed in an evaluation or survey form and then averaging them.

Quality Management displays time in two different ways, depending on where it appears.

In Quality Management, the time associated with a contact is the time the contact occurred at the agent's location, expressed in a format appropriate to the locale. For example, if the agent is located in Chicago, IL, USA, the time associated with any contacts made by that agent is Central Standard Time (CST).

The contact also displays the abbreviation for the local time zone. If Webex WFO does not know the time zone associated with the contact, then the time is displayed in Greenwich Mean Time (GMT).

In all Quality Management reports, except for system status and user recording status, the time associated with a contact is the time the contact occurred at the agent's location. The time appears in a format appropriate to the locale with a designated time zone.

In system status and user recording status reports, the time associated with a contact is in a format appropriate to the locale plus the GMT offset. For example, the time for a contact made by a Chicago agent at 3:42 PM CST appears as 9:42 PM GMT -06:00.

## Evaluation Reports

<a href="#"><u>Scores All Data</u></a>	Displays average evaluation scores by group, team, or agent per form. This can include one evaluation form or all point-based or percentage-based forms.
<a href="#"><u>Evaluation Scores</u></a>	Displays average detailed evaluation scores per agent, team, and/or group, based on form.
<a href="#"><u>Section Scores</u></a>	Displays the average score for each section of an evaluation form over a specified period. This can be run by agent, team, and/or group.
<a href="#"><u>Question Scores</u></a>	Displays the scores for each question on an evaluation form. This can include one evaluation form or all point-based or percentage-based forms for an individual agent, group, or team.
<a href="#"><u>Evaluator Performance</u></a>	Provides a summary of how many evaluations an evaluator has completed and the average evaluation score based on a time period. This can include one evaluation form or all point-based or percentage-based forms.
<a href="#"><u>Quality Averages Graph</u></a>	Displays quality averages over time for an agent, team, and/or group. This can include one evaluation form or all point-based or percentage-based forms.
<a href="#"><u>Evaluation Totals Graph</u></a>	Displays the evaluation totals by month for an individual agent, group, or team.
<a href="#"><u>Contact Totals Graph</u></a>	Displays the total number of recordings and evaluations per month for a specified group.
<a href="#"><u>Agent Trend Graph</u></a>	Displays a specific user's average score for each evaluation made over a specified time period, along with trend line and the detailed information below that makes up the graph.
<a href="#"><u>Agent Scored Evaluation</u></a>	Displays the details of all evaluations scored for a specific user during a defined time period, including the scores given on each evaluation question, the score for each section, the overall score, and any added comments. The report can be run for one form or for all percentage-based or point-based forms.

## Evaluation Reports

<a href="#"><u>Contact Detail</u></a>	Displays average evaluation scores, ranges, and contact total dates for a specific agent and whether the score exceeded, met, or was below expectation based on what was defined in the form. For the agent-level detail, you see a row per form. On the team- and group-level detail, you see some additional information for total number of evaluations, team, and agent averages.
<a href="#"><u>Evaluation Calibration</u></a>	Shows the results of a calibration session based on the Contact ID.
<a href="#"><u>Contact Goal Progress</u></a>	If you are using the Contact Goal feature, this report shows the progress of completed evaluations compared to their goals. The goals are by evaluator.

## System Reports

<a href="#"><u>Recording Access by User</u></a>	Displays users who accessed the recordings over a specified period.
<a href="#"><u>Recording Access by Contact</u></a>	Displays a list of archived recordings for a specific agent that were accessed over a specified period. It enables you to determine if a significant number of recordings concerning a particular contact, called number, or calling number were reviewed.
<a href="#"><u>User Recording Status</u></a>	Displays user and recording events associated with the agents configured for recording. You can choose to view messages generated by the service at the INFO, WARN, or ERROR level, or at all levels. Information is available for the past seven days, including the current day.
<a href="#"><u>System Status</u></a>	Displays system and administrative events associated with agents configured for recording. You can choose to view messages generated by the service at the INFO, WARN, or ERROR level, or at all levels. Information is available for the past seven days, including the current day.

## Survey Reports

<a href="#"><u>Surveys All Data</u></a>	Displays collective post-call survey scores.
<a href="#"><u>Survey Form Scores</u></a>	Displays the average scores for post-call surveys.

## Agent Scored Evaluation

The Agent Scored Evaluation report displays the details of all evaluations scored for a specific user during a defined time period, including the scores given on each evaluation question, the score for each section, the overall score, and any added comments. The report can be run for one form or for all percentage-based or point-based forms.

You can use this report to print out a hard copy of an individual evaluation result.

Agent Scored Evaluation													Start: 7/08/2019
													End: 6/08/2020
Eval Form	Contact ID	Called Number	Calling Number	Call Duration	Contact Date	Contact Time	Contact Time Zone	Eval Date	Eval Time	Eval Time Zone	Eval Last Name	Eval First Name	Score:
% Form with KPI Questions	13876			0:00:03	7/08/2019	12:00 PM	America/Chicago	9/03/2019	4:21 PM	America/India..	Molanen	Mary	70.00
Section:		Greetings		Weight(%):25.00									
Score:		Possible Score		KPI		Weight(%)		Question					
0.00		50.00		N		50.00		1.1 Agent identifies company and themselves?					
50.00		50.00		N		50.00		1.3 Agent verifies customer via PIN or security questions?					
Section Total:		50.00		Possible: 100.00		Score:		50.00					
Section:		Applications		Weight(%):25.00									
Score:		Possible Score		KPI		Weight(%)		Question					
100.00		100.00		N		100.00		2.3 Stays within appropriate applications?					
Section Total:		100.00		Possible: 100.00		Score:		100.00					
Section:		Handling Call		Weight(%):25.00									
Score:		Possible Score		KPI		Weight(%)		Question					
80.00		100.00		N		100.00		3.4 Suggests customer upgrade membership or add users					
Section Total:		80.00		Possible: 100.00		Score:		80.00					
Section:		Closing		Weight(%):25.00									
Score:		Possible Score		KPI		Weight(%)		Question					
50.00		50.00		N		50.00		4.1 Reads and gains approval of disclosures					
0.00		50.00		N		50.00		4.4 Thanks the customer on the company's behalf					
Section Total:		50.00		Possible: 100.00		Score:		50.00					
Eval Form	Contact ID	Called Number	Calling Number	Call Duration	Contact Date	Contact Time	Contact Time Zone	Eval Date	Eval Time	Eval Time Zone	Eval Last Name	Eval First Name	Score:
% Form with KPI Questions	13877			0:00:02	7/08/2019	12:00 PM	America/Chicago	8/06/2019	2:53 PM	America/India..	Molanen	Mary	75.00
Section:		Greetings		Weight(%):25.00									
Score:		Possible Score		KPI		Weight(%)		Question					
50.00		50.00		N		50.00		1.1 Agent identifies company and themselves?					
50.00		50.00		N		50.00		1.3 Agent verifies customer via PIN or security questions?					
Section Total:		100.00		Possible: 100.00		Score:		100.00					
Section:		Applications		Weight(%):25.00									
Score:		Possible Score		KPI		Weight(%)		Question					
0.00		100.00		N		100.00		2.3 Stays within appropriate applications?					
Section Total:		0.00		Possible: 100.00		Score:		0.00					
Section:		Handling Call		Weight(%):25.00									
Score:		Possible Score		KPI		Weight(%)		Question					
100.00		100.00		N		100.00		3.4 Suggests customer upgrade membership or add users					
Section Total:		100.00		Possible: 100.00		Score:		100.00					
Section:		Closing		Weight(%):25.00									
Score:		Possible Score		KPI		Weight(%)		Question					
50.00		50.00		N		50.00		4.1 Reads and gains approval of disclosures					
50.00		50.00		N		50.00		4.4 Thanks the customer on the company's behalf					
Section Total:		100.00		Possible: 100.00		Score:		100.00					
Form Comments													
First Name	Last Name	Comment Date	Comment Time	Comment Time Zone	Comment								
Michael	Kouri	2/11/2020	4:51 AM	UTC	SECTN								
Michael	Kouri	2/11/2020	4:51 AM	UTC	CSTN								
Michael	Kouri	2/11/2020	4:51 AM	UTC	Good - Test Comment								
Michael	Kouri	2/11/2020	4:52 AM	UTC	CSTN								
Michael	Kouri	2/11/2020	4:52 AM	UTC	Section Comment - Test								
Total Evaluations: 2													
[Agent] Alan Duff [Form]: % Form with KPI Questions													

### NOTE

If an evaluation score has a repetitive decimal, Webex WFO will round the value at the number of significant digits you have specified for reports. At 14 decimal places and below, the last decimal is rounded. At 15 decimals, the last two decimals are rounded.

For example, for 14 decimals, a repeating value appears as 66.66666666666667. For 15 decimals, a repeating value appears as 66.666666666666671.

This report is only available for roles in which the “View Evaluation Details” permission is selected.

## Fields in this report

### Call Duration

The contact’s talk time (amount of time between call answered and call dropped).

### Called Number

The DID (Direct Inward Dialing) or DNIS (Dialed Number Identification Service) number of the phone that received the call. Displays “unknown” if the called number is unlisted or blocked.

### Calling Number

The Caller ID or ANI (Automatic Number Identification) of the calling party. Displays “unknown” if the calling number is unlisted or blocked.

### Comment

The comment related to a form or section. Anyone who can view the evaluation can add a comment.

### Comment Date

The date when the comment was entered on the evaluation.

### Comment Time

The time when the comment was entered on the evaluation.

### Comment Time Zone

The time zone where the comment was entered.

### Contact Date

The date the contact occurred.

### Contact ID

The conversation’s unique ID.

### Contact Time

The time when the contact occurred.

### Contact Time Zone

The time zone in which the contact occurred.

### End

The end of the day or interval, or the end of the period covered by the report.

### Eval Date

The date the contact was evaluated. This value appears on requested reports if the View Evaluator Detail permission is selected. If it is not selected, the value 12/31/2999 is displayed. On scheduled reports, this value is always displayed.

## Eval Form

The evaluation form used to score the contact.

## Eval Time

The time when the contact was evaluated. Available on requested reports if the View Evaluator Detail permission is selected. If the View Evaluator Detail permission is not selected, the value 12:00 AM is displayed. This value is always available on scheduled reports.

## Eval Time Zone

The time zone in which the contact was evaluated. Only available on requested reports if the View Evaluator Details permission is enabled. If the permission is not enabled, the value ##### is displayed. This value is always displayed on scheduled reports.

## First Name

The evaluator's first name. The evaluator's first name value only appears when the View Evaluator Detail permission is selected.

## Form Comments

The comments for a form. Anyone who can view the evaluation can add a comment.

## KPI

Key Performance Indicator.

## Last Name

The evaluator's last name. The evaluator's last name value only appears when the View Evaluator Detail permission is selected.

## Possible

The total possible score.

## Possible Score

The actual question that appears in the evaluation form.

## Question

The text of the question that appears in the evaluation form.

## Score

The evaluation score given to the contact.

## Section

The name of the section in the evaluation form.

## Section Total

The total score for the section.

## Total Evaluations

The total number of evaluations performed using the specified evaluation form during the specified time period.

## Weight (%)

A percentage applied to a section or question in an evaluation form. The sum of question weights in a evaluation form section is 100 percent.

## Agent Trend Graph

The Agent Trend Graph report displays a specific user's average score for each evaluation made over a specified time period, along with trend line and the detailed information below that makes up the graph.



## Fields in this report

### Call Duration

The contact's talk time (amount of time between call answered and call dropped).

### Contact Date

The date the contact occurred.

### Contact ID

The conversation's unique ID.

### Contact Time

The time when the contact occurred.

### Contact Time Zone

The time zone in which the contact occurred.

### End

The end of the day or interval, or the end of the period covered by the report.

### Form

The name of the evaluation form.

### ID

The ID of the contact.

### Score

The evaluation score given to the contact.

### Start

The start time of the day or interval or the start of the period covered by the report.

### Trend

The average evaluation score over time.

### Contact Detail

This report displays average evaluation scores, ranges, and contact total dates for a specific agent and whether the score exceeded, met, or was below expectation based on what was defined in the form. For the agent-level detail, you see a row per form. On the team- and group-level detail, you see some additional information for total number of evaluations, team, and agent averages.

**NOTE** Statistics for scored contacts do not include evaluations in progress or evaluations waiting for approval.

CALABRIO Agent Contact Detail

Start:5/08/2017  
End:5/08/2020

Date	Score(%)	Exceed	Meet	Below	Call Duration
9/05/2018 10:12 AM	100.00	X			0:00:00
9/05/2018 10:12 AM	50.00			X	0:00:00
9/05/2018 10:13 AM	23.33			X	0:00:00
9/10/2018 10:22 AM	100.00	X			0:00:44
9/10/2018 12:00 PM	96.50	X			0:04:22
9/19/2018 9:36 AM	84.17			X	0:00:20
9/20/2018 8:14 AM	82.50		X		0:00:19

[Agent] Scott Hansford [Form] SC - Call Eval (%) III, SC Evaluation, SC - Call Eval (%) IV, GT\_NoApproval\_Percentage, GT\_Approval\_Percentage, % Form with KPI Questions, Cust. Experience, Jim's Evaluation Form, RA-EVAL, Marcus Test Form, Clone of SC - Call Eval (%) III Rev 2, Sample YMK %-based Eval, Gagon Test Sample Rubric, Evaluation Test Form - AV, TEST EVALUATION, APPEAL, Sample QA Form  
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CALABRIO Team Contact Detail

Start:7/08/2017  
End:5/08/2020

First Name	Last Name	Agent ID	Total Evaluations	Team Average(%)	Agent Average(%)	Score Std Dev	Total Exceed	Total Meet	Total Below
		171	1	73.42	100.00	0.00	1	0	0
		596	2	73.42	45.50	45.50	1	0	1
Advanced	Reporting	110	1	73.42	100.00	0.00	1	0	0
Alan	Duff	425	7	73.42	64.71	28.87	2	3	2
Alex	Altherr	47	72	73.42	87.44	21.09	60	0	12
Alvin	Wong	349	1	73.42	100.00	0.00	1	0	0
Anna	Alexander	62	90	73.42	82.54	24.20	65	0	25
Ashley	Van Hout	428	1	73.42	46.67	0.00	0	0	1
Ben	Bishop	48	176	73.42	68.98	28.50	80	0	96
Beth	Bryant	63	163	73.42	70.06	28.52	78	0	85
Brett(SiennaCreek)	Kadrie	429	1	73.42	65.25	0.00	0	0	1
Brian	Burns	30	161	73.42	69.97	28.35	76	0	85
Chris	Hohenberger	190	1	73.42	96.50	0.00	1	0	0
Curt	Cowens	64	1	73.42	95.50	0.00	1	0	0
Dan	Lancot	431	2	73.42	57.13	2.87	0	1	1
Dan	Lynch	432	3	73.42	68.74	24.54	1	1	1
David	Dubinski	65	1	73.42	90.50	0.00	1	0	0
Derek	Fernholz	148	1	73.42	64.17	0.00	0	0	1
Erika	Eells	411	1	73.42	50.83	0.00	0	0	1
Gerry	Johnsen	100	4	73.42	67.08	19.90	1	0	3
Greg	Iske	436	1	73.42	71.00	0.00	0	1	0
Ignacio	Villar	76	1	73.42	85.50	0.00	0	1	0
Juana	Ursheila	75	2	73.42	92.25	0.25	2	0	0
Kevin	Thurman	74	1	73.42	73.25	0.00	0	1	0
Mike	Engen	441	1	73.42	49.50	0.00	0	0	1
Nate	Isham	301	1	73.42	91.67	0.00	1	0	0
Nina	Quinian	71	1	73.42	93.00	0.00	1	0	0
Oishong	Chok	443	3	73.42	75.93	34.05	2	0	1
Oscar	Purcell	70	1	73.42	86.50	0.00	0	1	0
Quincy	Landers	68	1	73.42	83.50	0.00	0	1	0
Sally	Risk	444	1	73.42	23.33	0.00	0	0	1
Sam	Boswell	118	1	73.42	87.50	0.00	1	0	0
Scott	Hansford	94	7	73.42	73.79	27.18	3	1	3
Shane	Johnson	169	3	73.42	58.14	25.78	0	2	1
Shane	Johnson	95	1	73.42	100.00	0.00	1	0	0
Taylor	Laehn	446	7	73.42	90.40	9.02	4	3	0
Tom	Brown	447	2	73.42	79.17	6.83	0	2	0

[Team] Default Team [Form] SC - Call Eval (%) III, SC Evaluation, SC - Call Eval (%) IV, GT\_NoApproval\_Percentage, GT\_Approval\_Percentage, % Form with KPI Questions, Cust. Experience, Jim's Evaluation Form, RA-EVAL, Marcus Test Form, Clone of SC - Call Eval (%) III Rev 2, Sample YMK %-based Eval, Gagon Test Sample Rubric, Evaluation Test Form - AV, TEST EVALUATION, APPEAL, Sample QA Form  
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## Fields in this report

### Below

The number of evaluated contacts that are below expectations.

### Call Duration

The contact's talk time (amount of time between call answered and call dropped).

## Date

The date of the reported information.

## End

The end of the day or interval, or the end of the period covered by the report.

## Exceeds

The number of evaluated contacts that exceed expectations.

## Meets

The number of evaluated contacts that meet expectations.

## Score

The evaluation score given to the contact.

## Start

The start time of the day or interval or the start of the period covered by the report.

## Contact Goal Progress

If you are using the Contact Goal feature, this report shows the progress of completed evaluations compared to their goals. The goals are by evaluator.

CALABRIO Contact Goal Progress As Of: 5/08/2017

First Name	Last Name	Contact Goal	Completed	Total to Complete	Percent Complete
Call	Design	Goal 40: calibration session	0	3	0.0%
Charlie	Snedden	Goal 40: calibration session	0	3	0.0%
Chris	Dickhans	Goal 40: calibration session	0	3	0.0%
Consulting	Calabrio	Goal 40: calibration session	0	3	0.0%

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## Fields in this report

### Completed

The number of contact goals that the evaluator has completed.

### Contact Goal

The description of the contact goal as configured on the Contact Goal Administration page.

### First Name

The evaluator's first name. The evaluator's first name value only appears when the View Evaluator Detail permission is selected.

### Last Name

The evaluator's last name. The evaluator's last name value only appears when the View Evaluator Detail permission is selected.

## Percent Complete

The percentage of contact goals that the evaluator has completed.

## Total To Complete

The total number of contact goals the evaluator has to complete.

## Contact Totals Graph

The Contact Totals Graph report displays the total number of recordings and evaluations per month for a specified group.

## Fields in this report

### End

The end of the day or interval, or the end of the period covered by the report.

### Start

The start time of the day or interval or the start of the period covered by the report.

### Total Evaluations

The total number of evaluations performed using the specified evaluation form during the specified time period.

### Total QM Recordings

The total number of quality management recordings.

## Evaluation Calibration

This report shows the results of a calibration session based on the Contact ID. It does not display standard evaluation scores

**NOTE** This report is only available when the “View Evaluator Details” permission is enabled.

CALABRID Evaluation Calibration									
Eval Form	Contact ID	Called Number	Calling Number	Call Duration	Contact Date	Contact Time	Tammy Marino	Robin Butterfield	robin supervisor
SC	13709				2/07/2020	11:16 AM	89.17	72.50	55.83
Evaluation				25.00					
Section: Greeting						Section Score (%)	99.99	99.99	33.33
Question						Weight(%)	KPI	Question Type	Possible Score
1.1 Identifies Sierra Creek?						33.33	N		33.33
1.2 Begins with an open question?						33.33	N		0.00
1.3 Verifies customer identity?						33.33	N		33.33
Section: Applications				25.00					
Section: Applications						Section Score (%)	99.00	99.00	99.00
Question						Weight(%)	KPI	Question Type	Possible Score
2.1 Efficient and effective utilization of applications?						50.00	N		40.00
2.2 Stays within appropriate applications?						50.00	N		50.00
Section: Handling				25.00					
Section: Handling						Section Score (%)	100.00	0.00	99.00
Question						Weight(%)	KPI	Question Type	Possible Score
3.1 Agent directly handles all of the customer's needs?						50.00	N		50.00
3.2 Suggests membership upgrade?						50.00	N		0.00
Section: Closing				25.00					
Section: Closing						Section Score (%)	100.00	100.00	99.00
Question						Weight(%)	KPI	Question Type	Possible Score
4.1 Reviews and gains approval of disclosures?						50.00	N		50.00
4.2 Thanks the customer on the company's behalf?						50.00	N		50.00
Form Comments									

[Contact] 13709

## Fields in this report

### Call Duration

The contact's talk time (amount of time between call answered and call dropped).

### Called Number

The DID (Direct Inward Dialing) or DNIS (Dialed Number Identification Service) number of the phone that received the call. Displays "unknown" if the called number is unlisted or blocked.

### Calling Number

The Caller ID or ANI (Automatic Number Identification) of the calling party. Displays "unknown" if the calling number is unlisted or blocked.

### Contact Date

The date the contact occurred.

### Contact ID

The conversation's unique ID.

### Contact Time

The time when the contact occurred.

### Eval Form

The evaluation form used to score the contact.

### Evaluator Name

The first and last name of the person who evaluated or calibrated the contact. Only available on requested reports if the View Evaluator Details permission is enabled. This value is always displayed on scheduled reports.

### Form Comments

The comments for a form. Anyone who can view the evaluation can add a comment.

### KPI

Key Performance Indicator.

### Possible Score

The actual question that appears in the evaluation form.

### Question

The text of the question that appears in the evaluation form.

### Question Type

The type of question based on the possible answer: Yes/No or 0–5.

### Score

The evaluation score given to the contact.

## Section

The name of the section in the evaluation form.

## Section Score (%)

The section score given to the contact.

## Weight (%)

A percentage applied to a section or question in an evaluation form. The sum of question weights in a evaluation form section is 100 percent.

## Evaluation Scores

This report displays average detailed evaluation scores per agent, team, and/or group, based on form.

CALABRIO Agent Evaluation Scores											Start: 5/08/2017
											End: 5/08/2020
Group	Team	Last Name	First Name	Agent ID	Form	Recordings	Evaluations	Exceed	Meet	Below	Average Score
APAC	Kuala Lumpur-Team	Amini	Aiman	Aiman Amini	SC Evaluation	258	94	68	0	26	82.42
		Section Weight(%):NA		Section: Greeting							Average Score: 100.00
		Question Weight(%)		Question							
		NA	1.1 Identifies Sienna Creek?								100.00
		NA	1.2 Begins with an open question?								100.00
		NA	1.3 Verifies customer identity?								100.00
		Section Weight(%):NA		Section: Applications							Average Score: 71.17
		Question Weight(%)		Question							
		NA	2.1 Efficient and effective utilization of applications?								56.17
		NA	2.2 Stays within appropriate applications?								86.17
		Section Weight(%):NA		Section: Handling							Average Score: 77.71
		Question Weight(%)		Question							
		NA	3.1 Agent directly handles all of the customer's needs?								72.34
		NA	3.2 Suggests membership upgrade?								83.95
		Section Weight(%):NA		Section: Closing							Average Score: 91.98
		Question Weight(%)		Question							
		NA	4.1 Reviews and gains approval of disclosures?								100.00
		NA	4.2 Thanks the customer on the company's behalf?								86.17
APAC	Kuala Lumpur-Team	Bao	Bu Wai	Bu Wai Bao	SC Evaluation	258	162	77	0	85	69.91
		Section Weight(%):NA		Section: Greeting							Average Score: 100.00
		Question Weight(%)		Question							
		NA	1.1 Identifies Sienna Creek?								100.00
		NA	1.2 Begins with an open question?								100.00
		NA	1.3 Verifies customer identity?								100.00
		Section Weight(%):NA		Section: Applications							Average Score: 58.64
		Question Weight(%)		Question							
		NA	2.1 Efficient and effective utilization of applications?								43.83
		NA	2.2 Stays within appropriate applications?								73.46
		Section Weight(%):NA		Section: Handling							Average Score: 54.61
		Question Weight(%)		Question							
		NA	3.1 Agent directly handles all of the customer's needs?								47.53
		NA	3.2 Suggests membership upgrade?								64.17
		Section Weight(%):NA		Section: Closing							Average Score: 82.01
		Question Weight(%)		Question							
		NA	4.1 Reviews and gains approval of disclosures?								100.00
		NA	4.2 Thanks the customer on the company's behalf?								73.46



The name of the group.

## Last Name

The evaluator's last name. The evaluator's last name value only appears when the View Evaluator Detail permission is selected.

## Meets

The number of evaluated contacts that meet expectations.

## Question

The text of the question that appears in the evaluation form.

## Question Weight

A percentage applied to a question in an evaluation form. The sum of the question weights in each section of the form is 100 percent.

## Recordings

The number of recordings.

## Section

The name of the section in the evaluation form.

## Section Weight

A percentage applied to a section in an evaluation form. The sum of the section weights in the form is 100 percent.

## Start

The start time of the day or interval or the start of the period covered by the report.

## Team

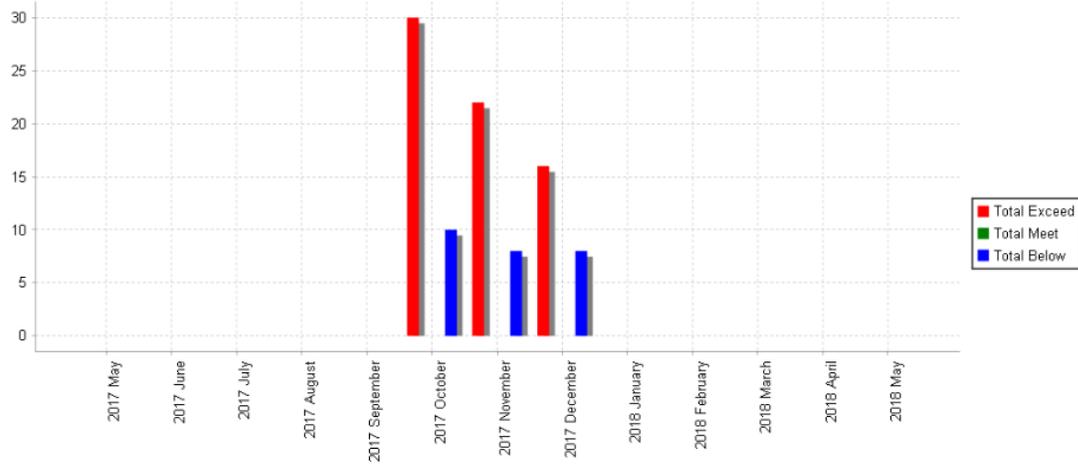
The name of the team. When associated with an agent, the team is the agent's current team.

## Evaluation Totals Graph

The Evaluation Totals Graph report displays the evaluation totals by month for an individual agent, group, or team.

CALABRIO Agent Evaluation Totals

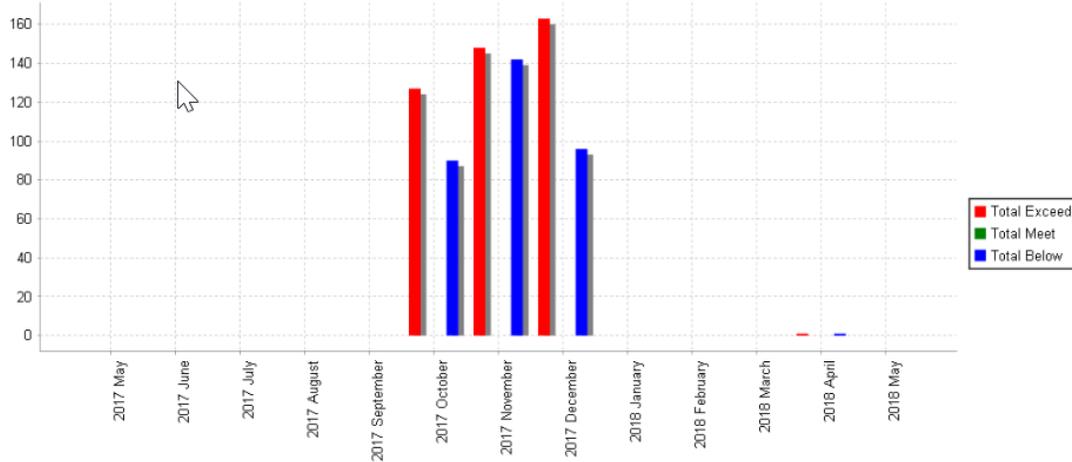
Start:5/08/2017  
End:5/08/2018



[Agent: Aiman Amin] [Form: SC - Call Eval (%) III.SC Evaluation,SC - Call Eval (%) IV.GT\_NoApproval\_Percentage,GT\_Approval\_Percentage,% Form with KPI Questions,Cust. Experience,Jim's Evaluation Form,RA-EVAL,Marous Test Form,Clone of SC - Call Eval (%) III Rev 2.Sample YMK %-based Eval,Gagori Test Sample Rubric,Evaluation Test Form - AV,TEST EVALUATION\_APPEAL,Sample QA Form  
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CALABRIO Group Evaluation Totals

Start:5/08/2017  
End:5/08/2018



[Group: Default Group] [Form: SC - Call Eval (%) III.SC Evaluation,SC - Call Eval (%) IV.GT\_NoApproval\_Percentage,GT\_Approval\_Percentage,% Form with KPI Questions,Cust. Experience,Jim's Evaluation Form,RA-EVAL,Marous Test Form,Clone of SC - Call Eval (%) III Rev 2.Sample YMK %-based Eval,Gagori Test Sample Rubric,Evaluation Test Form - AV,TEST EVALUATION\_APPEAL,Sample QA Form  
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## Fields in this report

### End

The end of the day or interval, or the end of the period covered by the report.

### Start

The start time of the day or interval or the start of the period covered by the report.

## Total Below

The total number of evaluated contacts whose scores fall below expectations. The default score range is 0–74 percent. The range can be modified by the administrator.

## Total Exceed

The total number of evaluated contacts whose scores exceed expectations. The default score range is 90–100 percent. This range can be modified by the administrator.

## Evaluator Performance

This report provides a summary of how many evaluations an evaluator has completed and the average evaluation score based on a time period. This can include one evaluation form or all point-based or percentage-based forms.

**NOTE** This report is only available when the “View Evaluator Details” permission is enabled.

CALABRIO Evaluator Performance						Start: 5/09/2019
						End: 5/08/2020
Last Name	First Name	User ID	Eval Form	Total Evaluations	Average Score	
Butterfield	Robin	Robin.Butterfield@Calab...	% Form with KPI Questions	3.00	63.33	
Butterfield	Robin	Robin.Butterfield@Calab...	GT_Approval_Percentage	1.00	100.00	
Butterfield	Robin	Robin.Butterfield@Calab...	Sample QA Form	1.00	68.00	
Butterfield	Robin	Robin.Butterfield@Calab...	SC - Call Eval (%) III	3.00	58.02	
Duff	Alan	CALABRIO\alan.duff@gag...	% Form with KPI Questions	1.00	100.00	
Duff	Alan	CALABRIO\alan.duff@gag...	Clone of SC - Call Eval (%) III Rev 2	1.00	70.50	
Duff	Alan	CALABRIO\alan.duff@gag...	TEST EVALUATION_APPEAL	1.00	100.00	
Evaluator	Americ	evalameric@calabrio.d...	SC Evaluation	3.00	50.83	
Evans	David	CALABRIO\ david.evans\...	SC Evaluation	7.00	70.95	
Hebbar	Shravan	Shravan.Hebbar@accent...	Clone of SC - Call Eval (%) III Rev 2	1.00	100.00	
Iske	Greg	CALABRIO\greg.iske@Gr...	SC Evaluation	1.00	23.33	
Johnsen	Gerry	CALABRIO\johnseg@gerr...	SC - Call Eval (%) IV	1.00	4.00	
Kouri	Michael	michael.a.kouri@accent...	Jim's Evaluation Form	1.00	100.00	
Kouri	Michael	michael.a.kouri@accent...	TEST EVALUATION_APPEAL	1.00	80.00	
Laehn	Taylor	CALABRIO\taylor.laehn@...	GT_NoApproval_Percentage	1.00	71.00	
Laehn	Taylor	CALABRIO\taylor.laehn@...	SC Evaluation	1.00	79.17	
Molanan	Mary	Mary.Molanan@Calabrio...	% Form with KPI Questions	4.00	61.25	
Molanan	Mary	Mary.Molanan@Calabrio...	SC - Call Eval (%) III	7.00	88.17	
Nyberg	Robert	CALABRIO\robert.nyberg...	SC Evaluation	1.00	100.00	
Risk	Sally	CALABRIO\sally.risk@Sall...	Cust. Experience	1.00	85.00	
Risk	Sally	CALABRIO\sally.risk@Sall...	TEST EVALUATION_APPEAL	1.00	80.00	
Wolff	Greg	CALABRIO\wolffg@Greg...	SC - Call Eval (%) III	1.00	96.50	

[Form]: SC - Call Eval (%) III, SC Evaluation, SC - Call Eval (%) IV, GT\_NoApproval\_Percentage, GT\_Approval\_Percentage, % Form with KPI Questions, Cust. Experience, Jim's Evaluation Form, RA-EVAL, Marcus Test Form, Clone of SC - Call Eval (%) III Rev 2, Sample YMK %-based Eval, Gagori Test Sample Rubric, Evaluation Test Form - AV, TEST EVALUATION\_APPEAL, Sample QA Form

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## Fields in this report

### Average Score (%)

The average score for the form, section, or question.

### End

The end of the day or interval, or the end of the period covered by the report.

### Eval Form

The evaluation form used to score the contact.

### First Name

The evaluator’s first name. The evaluator’s first name value only appears when the View Evaluator Detail permission is selected.

### Last Name

The evaluator’s last name. The evaluator’s last name value only appears when the View Evaluator Detail permission is selected.

### Start

The start time of the day or interval or the start of the period covered by the report.

### Total Evaluations

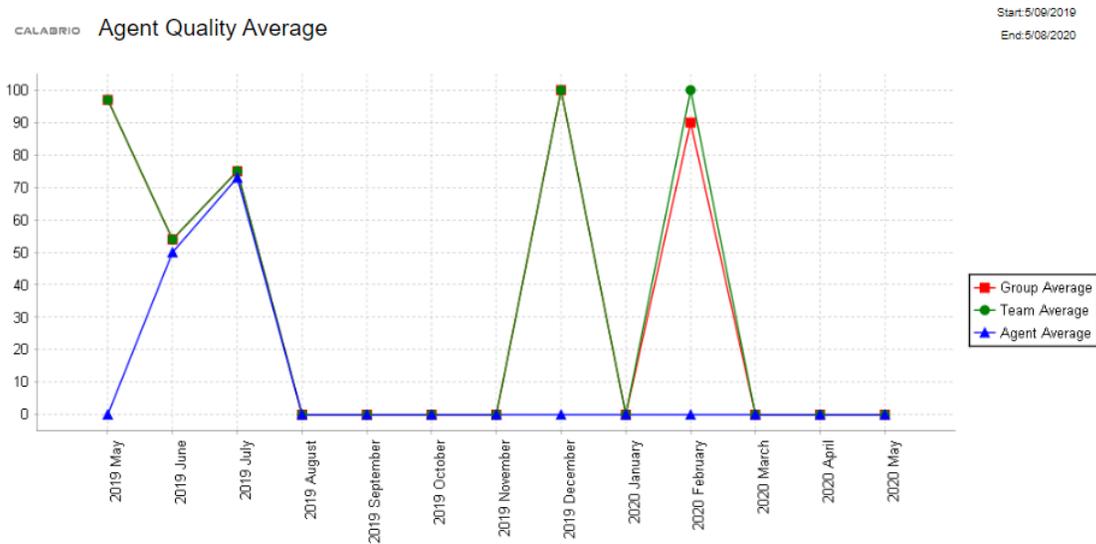
The total number of evaluations performed using the specified evaluation form during the specified time period.

### User ID

The Windows login of the person who accessed the archives.

### Quality Averages Graph

This graph displays quality averages over time for an agent, team, and/or group. This can include one evaluation form or all point-based or percentage-based forms.



[Agent: Alan Duff (Form: SC - Call Eval (%) III.SC Evaluation, SC - Call Eval (%) IV.GT\_NoApproval\_Percentage, GT\_Approval\_Percentage, % Form with KPI Questions, Cust. Experience, Jim's Evaluation Form, RA-EVAL, Marcus Test Form, Clone of SC - Call Eval (%) III Rev 2, Sample YMK %-based Eval, Gagon Test Sample Rubric, Evaluation Test Form - AV, TEST EVALUATION, APPEAL, Sample QA Form  
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## Fields in this report

### End

The end of the day or interval, or the end of the period covered by the report.

### Group Average

The average score of all contacts evaluated for agents in the group.

### Start

The start time of the day or interval or the start of the period covered by the report.

### Team Average

The average evaluation score of all the team's evaluations.

## Question Scores

The Question Scores report displays the scores for each question on an evaluation form. This can include one evaluation form or all point-based or percentage-based forms for an individual agent, group, or team.

CALABRID Agent Question Scores											Start: 5/09/2019
											End: 5/08/2020
Group	Team	Last Name	First Name	Agent ID	Form	Recordings	Evaluations	Exceed	Meet	Below	Average Score
Default Group	Default Team	Duff	Alan	Alan Duff	% Form with KP1 Questions	243	3	0	2	1	48.33
		Section Weight(%): NA		Section: Greetings							Average Score: 83.33
		Question Weight(%): NA		Question							
		NA		1.1 Agent identifies company and themselves?							66.67
		NA		1.3 Agent verifies customer via PIN or security questions?							100.00
		Section Weight(%): NA		Section: Applications							Average Score: 33.33
		Question Weight(%): NA		Question							
		NA		2.3 Stays within appropriate applications?							33.33
		Section Weight(%): NA		Section: Handling Call							Average Score: 73.33
		Question Weight(%): NA		Question							
		NA		3.4 Suggests customer upgrade membership or add users							73.33
		Section Weight(%): NA		Section: Closing							Average Score: 66.67
		Question Weight(%): NA		Question							
		NA		4.1 Reads and gains approval of disclosures							66.67
		NA		4.4 Thanks the customer on the company's behalf							66.67
Group	Team	Last Name	First Name	Agent ID	Form	Recordings	Evaluations	Exceed	Meet	Below	Average Score
Default Group	Default Team	Duff	Alan	Alan Duff	GT_Approval_Perc...	243	1	1	0	0	100.00
		Section Weight(%): NA		Section: One Section							Average Score: 100.00
		Question Weight(%): NA		Question							
		NA		1.1 Important Question							100.00
		Section Weight(%): NA		Section: Two Section							Average Score: 30.00
		Question Weight(%): NA		Question							
		NA		2.1 Two More Questions							0.00
		NA		2.2 Last Question							60.00

CALABRIO Group Question Scores

Start:5/09/2019  
End:5/08/2020

Group	Team	Last Name	First Name	Agent ID	Form	Recordings	Evaluations	Exceed	Meet	Below	Average Score
Default Group					% Form with KPI Questions	247	7	3	2	2	82.14
					Section Weight(%):NA						Average Score: 81.82
					Section: Greetings						
					Question Weight(%):NA						80.00
					Question: 1.1 Agent identifies company and themselves?						83.33
					Question: 1.3 Agent verifies customer via PIN or security questions?						
					Section Weight(%):NA						Average Score: 40.00
					Section: Applications						
					Question Weight(%):NA						40.00
					Question: 2.3 Stays within appropriate applications?						
					Section Weight(%):NA						Average Score: 83.33
					Section: Handling Call						
					Question Weight(%):NA						83.33
					Question: 3.4 Suggests customer upgrade membership or add users						
					Section Weight(%):NA						Average Score: 80.00
					Section: Closing						
					Question Weight(%):NA						80.00
					Question: 4.1 Reads and gains approval of disclosures						80.00
					Question: 4.4 Thanks the customer on the company's behalf						80.00
Default Group					GT_Approval_Perc..	247	1	1	0	0	100.00
					Section Weight(%):NA						Average Score: 100.00
					Section: One Section						
					Question Weight(%):NA						100.00
					Question: 1.1 Important Question						
					Section Weight(%):NA						Average Score: 30.00
					Section: Two Section						
					Question Weight(%):NA						0.00
					Question: 2.1 Two More Questions						60.00
					Question: 2.2 Last Question						60.00

## Fields in this report

### Agent ID

The agent's system ID number.

### Average Score (%)

The average score for the form, section, or question.

### Below

The number of evaluated contacts that are below expectations.

### End

The end of the day or interval, or the end of the period covered by the report.

### Evaluations

The total number of evaluations.

### Exceeds

The number of evaluated contacts that exceed expectations.

### First Name

The evaluator's first name. The evaluator's first name value only appears when the View Evaluator Detail permission is selected.

### Form

The name of the evaluation form.

### Group

The name of the group.

## Last Name

The evaluator's last name. The evaluator's last name value only appears when the View Evaluator Detail permission is selected.

## Meets

The number of evaluated contacts that meet expectations.

## Question

The text of the question that appears in the evaluation form.

## Question Weight

A percentage applied to a question in an evaluation form. The sum of the question weights in each section of the form is 100 percent.

## Recordings

The number of recordings.

## Section

The name of the section in the evaluation form.

## Section Weight

A percentage applied to a section in an evaluation form. The sum of the section weights in the form is 100 percent.

## Start

The start time of the day or interval or the start of the period covered by the report.

## Team

The name of the team. When associated with an agent, the team is the agent's current team.

## Recording Access by Contact

The Recording Access by Contact report displays a list of archived recordings for a specific agent that were accessed over a specified period. It enables you to determine if a significant number of recordings concerning a particular contact, called number, or calling number were reviewed.

## Fields in this report

### Accessed Date

The date when the contact was accessed.

### Accessed Time

The time when the contact was accessed.

### Accessed Time Zone

The time zone where the contact was accessed.

## Agent First Name

The agent's first name.

## Agent ID

The agent's system ID number.

## Agent Last Name

The agent's last name.

## Called Number

The DID (Direct Inward Dialing) or DNIS (Dialed Number Identification Service) number of the phone that received the call. Displays "unknown" if the called number is unlisted or blocked.

## Calling Number

The Caller ID or ANI (Automatic Number Identification) of the calling party. Displays "unknown" if the calling number is unlisted or blocked.

## Contact Date

The date the contact occurred.

## Contact ID

The conversation's unique ID.

## End

The end of the day or interval, or the end of the period covered by the report.

## Start

The start time of the day or interval or the start of the period covered by the report.

## User First Name

The user's first name.

## User ID

The Windows login of the person who accessed the archives.

## User Last Name

The user's last name.

## Recording Access by User

The Recording Access by User report displays users who accessed the recordings over a specified period.

## Fields in this report

### Accessed Date

The date when the contact was accessed.

### Accessed Time

The time when the contact was accessed.

### **Accessed Time Zone**

The time zone where the contact was accessed.

### **Agent First Name**

The agent's first name.

### **Agent ID**

The agent's system ID number.

### **Agent Last Name**

The agent's last name.

### **Called Number**

The DID (Direct Inward Dialing) or DNIS (Dialed Number Identification Service) number of the phone that received the call. Displays "unknown" if the called number is unlisted or blocked.

### **Calling Number**

The Caller ID or ANI (Automatic Number Identification) of the calling party. Displays "unknown" if the calling number is unlisted or blocked.

### **Contact Date**

The date the contact occurred.

### **Contact ID**

The conversation's unique ID.

### **End**

The end of the day or interval, or the end of the period covered by the report.

### **Start**

The start time of the day or interval or the start of the period covered by the report.

### **User First Name**

The user's first name.

### **User ID**

The Windows login of the person who accessed the archives.

### **User Last Name**

The user's last name.

### **Scores All Data**

The Scores All Data report displays average evaluation scores by group, team, or agent per form. This can include one evaluation form or all point-based or percentage-based forms.

Team Scores All Data

Start: 4/30/2019  
End: 4/29/2020

Group	Team	Form	Recordings	Evaluations	Exceed	Meet	Below	Average Score
Collections	Red Team	Collections Phone Evaluation 3.0	47	2	0	2	0	69.38
		Section Weight(%): 50.00	Section: Customer Experience		Average Score: 62.50			
		Question Weight(%)	Question		Average Score			
		10.00	1.1 The agent provided an appropriate introduction and greeting.		100.00			
		30.00	1.2 The agent was engaged and properly built a human connection with the customer.		75.00			
		20.00	1.3 The agent was professional and spoke with confidence.		50.00			
		10.00	1.4 The agent effectively controlled the call.		50.00			
		20.00	1.5 The agent demonstrated ownership of the customer's concerns/issues and related tasks.		50.00			
		10.00	1.6 The agent provided a proper closing.		50.00			
		Section Weight(%): 50.00	Section: Technical		Average Score: 75.00			
		Question Weight(%)	Question		Average Score			
		10.00	2.1 The agent left a timely complete note(s).		75.00			
		20.00	2.2 The agent provided a recap of the Root Cause for Delinquency (RCD).		50.00			
		10.00	2.3 The agent reviewed the next steps that have been mutually agreed upon.		50.00			
		20.00	2.4 The agent confirmed the specific date by which the action steps will take place.		100.00			
		10.00	2.5 The agent received confirmation where the customer has committed themselves to act, and be closer to a solution.		50.00			
		20.00	2.6 The agent verified the contact's email address and phone number.		100.00			
		10.00	2.7 The agent verified the address.		100.00			
		0.00	2.8 Payment in full was received.		0.00			
		Section Weight(%): 0.00	Section: Liabilities		Average Score: 100.00			
		Question Weight(%)	Question		Average Score			
		12.50	3.1 The agent did not leave a note on the account(s).		100.00			
		12.50	3.2 The agent did not avoid distractions during the call, holding or ACW.		100.00			
		12.50	3.3 The agent did not make the required recorded line notification(s).		100.00			
		12.50	3.4 The agent provided substantially incorrect information or lied to the customer.		100.00			
		12.50	3.5 The agent shared account information with an unauthorized contact.		100.00			
		12.50	3.6 The agent instructed the customer to take unsafe action.		100.00			
		12.50	3.7 The agent assumed liability when it has not been confirmed.		100.00			
		12.50	3.8 The required SML form was not submitted.		100.00			
Group	Team	Form	Recordings	Evaluations	Exceed	Meet	Below	Average Score
Collections	Red Team	CS Audit - 2nd TEST.2.1	47	1	1	0	0	100.00
		Section Weight(%): 0.00	Section: General Info		Average Score: 100.00			
		Question Weight(%)	Question		Average Score			
		20.00	1.1 Audit Type - Call		100.00			
		20.00	1.2 Audit Type - Change		0.00			
		20.00	1.3 Inbound		0.00			
		20.00	1.4 Outbound		100.00			
		20.00	1.5 Provider		0.00			
		Section Weight(%): 2.50	Section: Call Opening		Average Score:			
		Question Weight(%)	Question		Average Score			
		50.00	2.1 Did the rep state their name and greeting?		0.00			
		50.00	2.3 Did the rep advise the call is recorded?		0.00			
		Section Weight(%): 5.00	Section: HIPAA Verification		Average Score:			
		Question Weight(%)	Question		Average Score			
		50.00	3.1 Did the rep verify the caller is authorized to make their request?		0.00			
		50.00	3.2 Did the rep verify the correct date of birth?		0.00			

## Fields in this report

### Agent ID

The agent's system ID number.

### Average Score (%)

The average score for the form, section, or question.

### Below

The number of evaluated contacts that are below expectations.

### End

The end of the day or interval, or the end of the period covered by the report.

### Evaluations

The total number of evaluations.

## Exceeds

The number of evaluated contacts that exceed expectations.

## First Name

The evaluator's first name. The evaluator's first name value only appears when the View Evaluator Detail permission is selected.

## Form

The name of the evaluation form.

## Group

The name of the group.

## Last Name

The evaluator's last name. The evaluator's last name value only appears when the View Evaluator Detail permission is selected.

## Meets

The number of evaluated contacts that meet expectations.

## Question

The text of the question that appears in the evaluation form.

## Question Weight

A percentage applied to a question in an evaluation form. The sum of the question weights in each section of the form is 100 percent.

## Recordings

The number of recordings.

## Section

The name of the section in the evaluation form.

## Section Weight

A percentage applied to a section in an evaluation form. The sum of the section weights in the form is 100 percent.

## Start

The start time of the day or interval or the start of the period covered by the report.

## Team

The name of the team. When associated with an agent, the team is the agent's current team.

## Section Scores

The Section Scores report displays the average score for each section of an evaluation form over a specified period. This can be run by agent, team, and/or group.

CALABRIG Agent Section Scores

Start:5/09/2019  
End:5/08/2020

Group	Team	Last Name	First Name	Agent ID	Form	Recordings	Evaluations	Exceed	Meet	Below	Average Score
Default Group	Default Team	Duff	Alan	Alan Duff	% Form with KPI Questions	243	3	0	2	1	48.33
		Section Weight(%):NA		Section: Greetings							Average Score: 83.33
		Question Weight(%)		Question							
		NA	1.1 Agent identifies company and themselves?						66.67		
		NA	1.3 Agent verifies customer via PIN or security questions?						100.00		
		Section Weight(%):NA		Section: Applications							Average Score: 33.33
		Question Weight(%)		Question							
		NA	2.3 Stays within appropriate applications?						33.33		
		Section Weight(%):NA		Section: Handling Call							Average Score: 73.33
		Question Weight(%)		Question							
		NA	3.4 Suggests customer upgrade membership or add users						73.33		
		Section Weight(%):NA		Section: Closing							Average Score: 66.67
		Question Weight(%)		Question							
		NA	4.1 Reads and gains approval of disclosures						66.67		
		NA	4.4 Thanks the customer on the company's behalf						66.67		

[Agent]: Alan Duff [Form]: % Form with KPI Questions  
Page: 1 / 1

Run Date: May 8, 2020 4:11 PM

## Fields in this report

### Agent ID

The agent's system ID number.

### Average Score (%)

The average score for the form, section, or question.

### Below

The number of evaluated contacts that are below expectations.

### End

The end of the day or interval, or the end of the period covered by the report.

### Evaluations

The total number of evaluations.

### Exceeds

The number of evaluated contacts that exceed expectations.

### First Name

The evaluator's first name. The evaluator's first name value only appears when the View Evaluator Detail permission is selected.

### Form

The name of the evaluation form.

### Group

The name of the group.

### Last Name

The evaluator's last name. The evaluator's last name value only appears when the View Evaluator Detail permission is selected.

## Meets

The number of evaluated contacts that meet expectations.

## Question

The text of the question that appears in the evaluation form.

## Question Weight

A percentage applied to a question in an evaluation form. The sum of the question weights in each section of the form is 100 percent.

## Recordings

The number of recordings.

## Section

The name of the section in the evaluation form.

## Section Weight

A percentage applied to a section in an evaluation form. The sum of the section weights in the form is 100 percent.

## Start

The start time of the day or interval or the start of the period covered by the report.

## Team

The name of the team. When associated with an agent, the team is the agent's current team.

## Surveys All Data

The Surveys All Data report displays collective post-call survey scores.

## Fields in this report

### Agent ID

The agent's system ID number.

### Average Score (%)

The average score for the form, section, or question.

### First Name

The evaluator's first name. The evaluator's first name value only appears when the View Evaluator Detail permission is selected.

### Form

The name of the evaluation form.

## Group

The name of the group.

## Last Name

The evaluator's last name. The evaluator's last name value only appears when the View Evaluator Detail permission is selected.

## Question

The text of the question that appears in the evaluation form.

## Question Weight

A percentage applied to a question in an evaluation form. The sum of the question weights in each section of the form is 100 percent.

## Surveys

The number of surveys.

## Team

The name of the team. When associated with an agent, the team is the agent's current team.

## Survey Form Scores

The Survey Form Scores report displays the average scores for post-call surveys.

## Fields in this report

### Agent ID

The agent's system ID number.

### Average Score (%)

The average score for the form, section, or question.

### First Name

The evaluator's first name. The evaluator's first name value only appears when the View Evaluator Detail permission is selected.

### Form

The name of the evaluation form.

### Group

The name of the group.

### Last Name

The evaluator's last name. The evaluator's last name value only appears when the View Evaluator Detail permission is selected.

### Question

The text of the question that appears in the evaluation form.

## Question Weight

A percentage applied to a question in an evaluation form. The sum of the question weights in each section of the form is 100 percent.

## Recordings

The number of recordings.

## Surveys

The number of surveys.

## Team

The name of the team. When associated with an agent, the team is the agent's current team.

## System Status

The System Status report displays system and administrative events associated with agents configured for recording. You can choose to view messages generated by the service at the INFO, WARN, or ERROR level, or at all levels. Information is available for the past seven days, including the current day.

The Media web app writes events that warn when free space is low on the Site Upload server or when uploads stop because free space is too low.

## Fields in this report

### Category

The application associated with the event.

### Date

The date of the reported information.

### End

The end of the day or interval, or the end of the period covered by the report.

### IP Address

The IP address of the computer on which the event occurred.

### Level

The level of the event messages that are displayed:

- ALL—All event level messages
- INFO—Informational messages for events that are not errors but might be useful for troubleshooting

- **WARN**—Warning messages for events that are nuisance malfunctions but do not interfere with the program's operation
- **ERROR**—Error messages for events that prevent the program from continuing to work

## Machine

The universally unique identifier (UUID) of the computer on which the event occurred.

## Message

The event message.

## Start

The start time of the day or interval or the start of the period covered by the report.

## Time

The time of the contact.

## User Recording Status

The User Recording Status report displays user and recording events associated with the agents configured for recording. You can choose to view messages generated by the service at the INFO, WARN, or ERROR level, or at all levels. Information is available for the past seven days, including the current day.

## Fields in this report

### Category

The application associated with the event.

### Date

The date of the reported information.

### End

The end of the day or interval, or the end of the period covered by the report.

### First Name

The evaluator's first name. The evaluator's first name value only appears when the View Evaluator Detail permission is selected.

### IP Address

The IP address of the computer on which the event occurred.

### Last Name

The evaluator's last name. The evaluator's last name value only appears when the View Evaluator Detail permission is selected.

### Level

The level of the event messages that are displayed:

- ALL—All event level messages
- INFO—Informational messages for events that are not errors but might be useful for troubleshooting
- WARN—Warning messages for events that are nuisance malfunctions but do not interfere with the program's operation
- ERROR—Error messages for events that prevent the program from continuing to work

## Machine

The universally unique identifier (UUID) of the computer on which the event occurred.

## Message

The event message.

## Start

The start time of the day or interval or the start of the period covered by the report.

## Team

The name of the team. When associated with an agent, the team is the agent's current team.

## Time

The time of the contact.

## User ID

The Windows login of the person who accessed the archives.

## WFM standard reports

Use the WFM reports to view data related to forecasts, schedules, and operation. The WFM reports cover the major areas of interest in a contact center.

The update frequency depends on the type of data.

- **Shortly after a change has been made**—Forecast data, schedule data, request data, preference data, availability data and all selection criteria.
- **Periodically during the day, usually every 15 or 30 min**—Queue and agent statistics and ready-time adherence data.
- **When the agent's shift has ended**—Adherence data.
- **Once every 24h**—Staffing data, that is scheduled agents compared to forecasted agents.

The time frames above are valid for all scenarios where reporting is enabled.

**NOTE** When the system is under heavy load, for example when someone has saved a large amount of data in the People module, the updates of the report data might be delayed.

The user's roles control which reports they can access and which data they can see in those reports. Use a combination of roles to provide a user access to different sets of data in different reports.

**EXAMPLE** Create one role to give agents access to view only their own data in some reports and create an additional role to give the agents access to view their team's data in other reports.

The reports are accessed as MS Excel, MS Word, or PDF files, except for the **Ready-time adherence** reports, which are accessed as web pages. A preview option is available to check that it is the correct report or that data is loaded in the report. This option only displays the first page of the report.

### Agent Performance

<u>Adherence per Agent report</u>	Displays the daily adherence percentage and details on how long the agent was in adherence, out of adherence, and in neutral adherence for each day.
<u>Agent Metrics report</u>	Displays for example the agents' ready-time adherence, occupancy and answered calls. This is useful to evaluate agents' performance in relation to how they were scheduled.
<u>Agent Queue Metrics report</u>	Displays queue metrics such as answered calls, average handling time, average talk time and average after call work, per agent and date.
<u>Agent Queue Statistics report</u>	Displays raw agent data (bound to queue) per interval. It gives you the full contact statistics for the agent, regardless of what skills they are working on. This is useful to validate the agent statistics in WFM based on the agent statistics in the ACD platform.
<u>Agent Skills report</u>	Provides an overview of which skills the agents have.
<u>Agent Statistics report</u>	Displays agent statistics which are not queue-related, for example logged-in time, ready time, and how many calls the agent has answered in total.
<u>Gamification Leaderboard report</u>	Displays the number of gold, silver and bronze badges each agent has received, and how the agents are ranked.
<u>Ready-Time Adherence per</u>	Displays how well each agent has adhered to their schedule over a selected period of time. Based on ready-time adherence, which is less

### Agent Performance

<a href="#"><u>Agent report</u></a>	detailed than the historical adherence used in the Adherence per Agent report.
<a href="#"><u>Ready-Time Adherence per Day report</u></a>	Displays how well agents has adhered to their schedule on a selected day. Based on ready-time adherence, which is less detailed than the historical adherence used in the Adherence per Agent report.
<a href="#"><u>Team Metrics report</u></a>	Displays for example ready-time adherence, occupancy and answered calls. This is useful to evaluate a team's performance in relation to how they were scheduled.

### Audit Trail

<a href="#"><u>General Audit Trail report</u></a>	Displays for example changes made in the web People tool, BPO staffing changes, import or copy of schedules between scenarios, and adjustments of agent adherence.
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### Employee Information

<a href="#"><u>Absence Time per Absence report</u></a>	Displays part-day and full-day absences per agent, absence type, and day, grouped by absence.
<a href="#"><u>Absence Time per Agent report</u></a>	Displays part-day and full-day absences per agent, absence type, and day, grouped by agent.
<a href="#"><u>Activity Time per Agent report</u></a>	Displays how much time that is scheduled on each of the selected activities, per agent.
<a href="#"><u>Availability per Agent report</u></a>	Displays the utilization of the availability, that is the number of scheduled days and hours compared to the number of available days and hours. This is useful to show the availability for hourly employees, summarized per agent.
<a href="#"><u>Requests per Agent report</u></a>	Displays all requests the agents have made, the type of requests (absence, overtime, shift trade or text request) and if the requests have been approved or denied.

**Employee Information**[Scheduled Overtime per Agent report](#)

Displays the scheduled overtime per agent and overtime type. You can drill down from team totals to agent and date.

[Shift Category and Full-Day Absence per Agent report](#)

Displays how many shifts of each shift category, how many days off and how many full-day absences that have been scheduled for each agent.

**Forecasting Performance**[Forecast vs Actual Workload report](#)

Displays the forecasted number of contacts, talk time, and after call work and the corresponding actual values. This is useful to evaluate the forecast accuracy.

[Forecast vs Scheduled Hours report](#)

Displays the forecasted and scheduled time and the predicted service level. This is useful to evaluate how well the schedule is designed in relation to the forecast.

**Improve**[Improve report](#)

Displays the service level, ready-time adherence, handling time and paid time, both graphically and in numbers.

**Preferences**[Preference per Agent report](#)

Displays the detailed preferences for the selected agents. This is useful to show how many agent preferences that have been entered and what percentage that is fulfilled, summarized per agent.

[Preference per Day report](#)

Displays the detailed preferences for the selected agents. This is useful to show how many agent preferences that have been entered and what percentage that is fulfilled, summarized per day.

**Schedule Analysis**[Schedule Audit Trail report](#)

Displays all schedule changes with information on when that change was done and by whom.

Schedule Analysis	
<a href="#"><u>Scheduled Agents per Activity report</u></a>	Displays the number of agents (FTEs) that are scheduled per activity and interval.
<a href="#"><u>Scheduled Agents per Interval and Team report</u></a>	Displays the number of agents (actual persons) who are scheduled per team and interval.
<a href="#"><u>Scheduled Time per Activity report</u></a>	Displays the scheduled time per activity.
<a href="#"><u>Scheduled Time per Agent report</u></a>	Displays the scheduled time per agent, with detailed information on scheduled overtime and scheduled absence time.
<a href="#"><u>Shift Category and Full-Day Absence per Day report</u></a>	Display the number of shifts of each shift category and the number of full-day absences.
<a href="#"><u>Shift Category per Day report</u></a>	Displays the number of shifts of each shift category that are scheduled and what percentage that is out of the total number of shifts for the selected period.
Service Level Analysis	
<a href="#"><u>Abandonment and Speed of Answer report</u></a>	Displays for example the answer rate, the abandon rate and the average speed of answer. This is useful to follow up on how many calls that are being abandoned, and how long customers wait in queue.
<a href="#"><u>Queue Statistics report</u></a>	Displays raw queue data per interval. This is useful to validate the queue statistics in WFM based on the queue statistics in the ACD platform.
<a href="#"><u>Service Level and Agents Ready report</u></a>	Displays service level compared to the number of available and scheduled agents, including information on logged-in time, ready time, number of answered calls, and talk time.

### Abandonment and Speed of Answer report

Use this report to see how many calls that are abandoned and how long customers wait in queue for selected skills and workloads. It answers questions like:

- What was the **Abandon rate** and the **Average time to abandon** on Monday?
- What was the **Average speed of answer** (ASA) for each interval yesterday?

Use the **Not defined** option in the skill and workload selection to show logged queue data which is not connected to any skill and workload.

## Page location

WFM > Reports > Abandonment and speed of answer

## Measures

- Answer rate (%)
- Abandon rate (%)
- Abandon rate, excluding short calls (%)
- Average speed of answer (ASA) (s)
- Average time to abandon (s)
- Longest delay in queue, answered (s)
- Longest delay in queue, abandoned (s)

## Related topics

- [WFM standard reports](#)

### Absence Time per Absence report

This report shows the contract time, paid time and work time per absence type for all scheduled absence time. You can drill down to summaries per absence type, agent, and date. The report shows if the scheduled absence is a part-day or full-day absence.

The report answers questions like:

- How many hours of sick time did we have last week?
- How many hours of “early leave” did we see last month?

The data in this report is presented on the shift start date. For example, an absence that starts on Monday at 10:00 PM and ends on Tuesday at 6:00 AM is shown in the Monday report.

The data is always shown in the agents' local time zones.

Use the **Not defined** option in the team and agent selection to show logged data which is not connected to any agent and team.

## Page location

WFM > Reports > Absence time per absence

## Measures

- Contract time
- Paid time
- Work time

## Related topics

- [Absence Time per Agent report](#)
- [WFM standard reports](#)

### Absence Time per Agent report

This report shows contract time, paid time and work time per agent for all scheduled absence time. You can drill down to summaries per agent, absence type, and date. The report shows if the scheduled absence is a part-day or full-day absence.

The report answers questions like:

- How many hours of sick time did Ashley have last month?
- How many hours of vacation did Robert have last week?

The data in this report is presented on the shift start date. For example, an absence that starts on Monday at 10:00 PM and ends on Tuesday at 6:00 AM is shown in the Monday report.

The data is always shown in the agents' local time zones.

Use the **Not defined** option in the team and agent selection to show logged data which is not connected to any agent and team.

## Page location

WFM > Reports > Absence time per agent

## Measures

- Contract time
- Paid time
- Work time

## Related topics

- [Absence Time per Absence report](#)
- [WFM standard reports](#)

### Activity Time per Agent report

This report displays time scheduled on different activities during a selected time period per agent. You can drill down on each agent and activity and see the time scheduled on each activity per day.

The report answers questions like:

- How many hours of Phone time did Ashley have last week?
- How many hours of Meetings did Robert have last month?

Use the **Not defined** option in the team and agent selection to show logged data which is not connected to any agent and team.

## Page location

WFM > Reports > Activity time per agent

## Measures

- Contract time
- Paid time
- Work time
- Overtime
- Scheduled time

## Related topics

- [WFM standard reports](#)

### Adherence per Agent report

This report presents the daily adherence percentage for the selected agents, and details on the scheduled time and for how long the agent was in adherence, out of adherence and in neutral adherence for each day. The report also contains information on whether the agent was late for work.

The adherence information in this report is based on the same detailed adherence data that is shown in the Adherence tool. See [About historical adherence](#) for information on how the adherence percentage is calculated.

The report answers questions like:

- What was the adherence for the agents on the team yesterday?
- What has John's adherence looked like over the past month?
- Has anyone in the team been late for work in the past week?

The adherence data is available in the report when the agent's shift has ended.

Up to two years of adherence data can be saved.

**NOTE** This functionality is new and adherence data has only been stored since the functionality was introduced.

## Page location

WFM > Reports > Adherence per agent

## Measures

- Adherence %
- Late for work
- Time in shift
- In adherence
- Neutral adherence
- Out of adherence

## Related topics

- [WFM standard reports](#)

### Agent Metrics report

Use this report to evaluate how well the agents have performed, in relation to how they were scheduled. You can drill down to view the metrics for each selected day and for each agent.

The report answers questions like:

- What are the basic stats for Ashley, regardless of which queue the interaction came in on?
- What are the stats for my group of agents, broken down by agent?

In the report selection page, ensure to select the ready-time adherence calculation to use.

Shifts which cross midnight are split at the midnight break. That is, schedule and ready-time adherence figures are shown for the calendar date and do not consider the shift start date.

Use the **Not defined** option in the team and agent selection to show logged data which is not connected to any agent and team.

## Page location

WFM > Reports > Agent metrics

## Measures

- Scheduled ready time (hh:mm:ss)
- Ready time (hh:mm:ss)
- Ready time / Scheduled ready time (%)
- Answered calls
- Occupancy (%)
- Ready-time adherence (%)

## Related topics

- [WFM standard reports](#)
- [About ready-time adherence](#)

### Agent Queue Metrics report

This report shows the queue metrics for each agent. View metrics like answered calls and average handling time for the selected time period and for each queue that the agent has been logged in to. You can drill down to a specific queue and day to view more details.

The report answers questions like:

- What are the basic stats for my group of agents, broken down by queue?
- How many calls did my team answer and what was the average talk time?

Use the **Not defined** option in the team and agent selection to show logged data which is not connected to any agent and team.

## Page location

WFM > Reports > Agent queue metrics

## Measures

- Answered calls
- Average handling time
- Average talk time
- Average after call work

## Related topics

- [WFM standard reports](#)

### Agent Queue Statistics report

This report shows raw agent data (bound to queue) per interval. It gives you the full contact statistics for the agent, regardless of what skills they are working on. This is useful to validate the agent statistics in WFM based on the agent statistics in the ACD platform.

The reports answers questions like:

- What were the basic stats of each queue by agent? Sort them by queue and agent so I can see a specific breakdown.
- How many calls were answered, how many were transferred, and what was the talk time?

Use the **Not defined** option in the skill and workload selection to show logged queue data which is not connected to any skill and workload.

Use the **Not defined** option in the team and agent selection to show logged data which is not connected to any agent and team.

## Page location

WFM > Reports > Agent queue statistics

## Measures

- Answered calls
- Transferred calls
- Talk time
- After call work (ACW)

## Related topics

- [WFM standard reports](#)

## Agent Skills report

This report shows a summary of all the skills per agent on a selected day. All dates are in the agents' time zones.

The report answers questions like:

- What skills are assigned to each agent?

In the selection page, there is an option to **Only show active skills**. If this option is selected and an agent only has skills which are not active, the row is blank and the agent is not counted as skilled.

## Page location

WFM > Reports > Agent skills

## Measures

- Skill

## Related topics

- [WFM standard reports](#)

## Agent Statistics report

This report shows statistics which are not related to any particular queue, such as ready time and direct calls, per agent. The data is displayed per day and interval.

The report answers questions like:

- What are the basic stats for team A, broken down by agent and by interval, and regardless of which queue the interaction came in on?

Use the **Not defined** option in the team selection to show logged data which is not connected to any agent and team.

## Page location

WFM > Reports > Agent statistics

## Measures

- Logged in time
- Ready time
- Not ready time
- Idle time
- Admin time
- Direct outbound calls
- Direct outbound calls talk time

- Direct incoming calls
- Direct incoming calls talk time

## Related topics

- [WFM standard reports](#)

### Availability per Agent report

This report shows the availability of the hourly staff, summarized per agent. It presents the number of available days and hours entered by the agent and the number of days and hours that were scheduled (work time). It also shows the utilization, that is the number of scheduled hours compared to the available hours.

The report answers questions like:

- Did we match our schedules to the agent's availability well?
- Did we utilize our agents according to their availability?

The data in this report is always shown in the agents' local time zones.

## Page location

WFM > Reports > Availability per agent

## Measures

- Available days
- Available time
- Scheduled days
- Scheduled time
- Utilization

## Related topics

- [WFM standard reports](#)

### Forecast vs Actual Workload report

Use this report to compare the forecast to the actual values for the selected scenario, skills and workloads.

The report answers questions like:

- How well does the number of forecasted calls match the number of calls that were actually received?
- How well do the forecasted AHT and ACW match the actual AHT and ACW?
- How accurate was my forecast?

Use the **Not defined** option in the skill and workload selection to show logged queue data which is not connected to any skill and workload.

See [Forecast vs Scheduled Hours report](#) to compare the forecast to the schedule.

## Page location

WFM > Reports > Forecast vs actual workload

## Measures

- Forecasted calls
- Calculated calls
- Offered calls
- Answered calls
- Average talk time (ATT)
- Average after call work (ACW)
- Forecasted average talk time (ATT)
- Forecasted average after call work time (ACW)

## Related topics

- [Forecast vs Scheduled Hours report](#)
- [WFM standard reports](#)

### Forecast vs Scheduled Hours report

Use this report to see how well the schedule is designed in relation to the forecasted hours needed for each skill, with or without shrinkage included.

A low value on **Relative difference** and **Standard deviation** shows that you are scheduling according to your forecast.

The report answers questions like:

- How well do the actual number of hours scheduled match the number of forecasted hours?
- How efficient was my schedule compared to the forecast?

See [Forecast vs Actual Workload report](#) to compare the forecast to the actual workload.

**NOTE** If you are importing staff from external suppliers using the BPO Exchange functionality, the scheduled time per skill in this report includes the imported staff. The predicted service level is calculated based on the total scheduled time per skill, including the imported data.

## Page location

WFM > Reports > Forecast vs scheduled hours

## Measures

- Forecasted time (h)
- Scheduled time (h) per skill
- Forecasted time incl. shrinkage (h)
- Relative difference (%)
- Standard deviation
- Predicted service level
- Predicted service level incl. shrinkage

## Related topics

- [Forecast vs Actual Workload report](#)
- [WFM standard reports](#)

## Gamification Leaderboard report

Gamification can be used to select the “Agent of the month” or the “Best agent in a campaign.” The gamification leaderboard facilitates this by presenting the agents who received the highest number of gold, silver and bronze badges for the selected time period. By default, the report will show yesterday and one month back.

The report answers questions like:

- Who received the most badges last week?
- Which three agents received the most badges last month?

The rank on the leaderboard is calculated for the current selection of agents. It is primarily based on the number of gold badges, secondarily on the number of silver badges and thirdly on the number of bronze badges, just like in the Olympic Games. If two agents have the same number of badges on all levels, they receive the same rank.

If you belong to a team, the Gamification leaderboard by default shows your team. If you don't belong to a team, all agents that you have permissions to see are shown. Use the search function to show for example a specific team or agents working on a particular skill.

## Page location

WFM > Reports > Gamification leaderboard

## Measures

- Rank
- Agent name
- Gold badges
- Silver badges
- Bronze badges

## Related topics

- [WFM standard reports](#)

## General Audit Trail report

View what changes were made, when and by whom. You can search by either who made the change or in which context the change was made. The general audit trail tracks the following changes:

- Granting or revoking roles in the People tool on web.
- Changing the application or identity logon in the People tool on web.
- Changing user information in the People tool on web.
- Importing new employees using the file import.
- Changing the default values for the new employee import.
- Import staffing from external suppliers via the BPO Exchange functionality.
- Removing imported staffing from external suppliers.
- Importing or copying schedules from one scenario to another.
- Approving an agent's occurrence of out of adherence as in adherence.
- Adjusting the adherence to neutral for all agents.
- Importing queue data via the web Forecasts tool.

The report answers questions like:

- Who granted the Team leader role to Ashley?
- Has any new employees been imported this week?
- When was the staffing from the external supplier imported?
- Who approved John's late arrival as In adherence?

### NOTE

- Changes in access management in the People module in the client are not shown in the **General audit trail** report.
- Schedule changes are tracked in the [Schedule Audit Trail report](#)

## Page location

WFM > Reports > General audit trail

## Related topics

- [WFM standard reports](#)

### Improve report

Use this report to analyze the correlations between the three KPIs; ready-time adherence, service level and handling time compared to paid time. It gives a general overview of the performance of the contact center for a selected period. The report makes it possible to view data in various levels of detail, from a single interval up to weekdays and months.

The report answers questions like:

- Are the agents working according to their schedule?
- Are the calls answered in time, according to our goals?
- How much “customer time” do we get for each paid hour?

Ensure to select the ready-time adherence calculation and service level calculation that you want to use on the report selection page.

## Page location

WFM > Reports > Improve

## Measures

- Ready-time adherence
- Service level
- Handling time / Paid time

## Related topics

- [WFM standard reports](#)
- [About ready-time adherence](#)

## Preference per Agent report

Use this report to show how many agent preferences that are fulfilled or unfulfilled during a selected time period, summarized per agent. The report shows preferences for shift categories, days off, absences and extended preferences such as maximum work time or earliest start time. It also shows the number of must have preferences.

The agents enter their preferences for how and when they want to work. A preference is counted as fulfilled when the agent is scheduled according to the preference. If not, it is counted as unfulfilled. All preferences entered for one single day is counted as one preference.

**EXAMPLE** An agent enters a preference for the **Early** shift category with a maximum work time of 8 hours and sets the preferred latest end time 3:00 PM. This counts as one preference, an extended preference. If one or more of the criteria is not fulfilled in the schedule, the preference is counted as unfulfilled.

The report answers questions like:

- How many of the shifts fulfilled the agent's preferences this month?
- Which agents had the least of their preferences fulfilled for this schedule period?

Use the **Not defined** option in the team and agent selection to show logged data which is not connected to any agent and team.

**NOTE** The dates of the preferences are shown according to the agent's time zone.

## Page location

WFM > Reports > Preference per agent

## Measures

- Must haves
- Fulfilled
- Unfulfilled
- Fulfillment %

## Related topics

- [Preference per Day report](#)
- [WFM standard reports](#)

### Preference per Day report

Use this report to show the number of agent preferences that are fulfilled or unfulfilled during a selected time period, summarized per day. The report shows preferences for shift categories, days off, absences or extended preferences such as maximum work time or earliest start time. It also shows the number of must have preferences.

The agents enter their preferences for how and when they want to work. A preference is counted as fulfilled when the agent is scheduled according to the preference. If not, it is counted as unfulfilled. All preferences entered for one single day is counted as one preference.

**EXAMPLE** An agent enters a preference for the **Early** shift category with a maximum work time of 8 hours and sets the preferred latest end time 3:00 PM. This counts as one preference, an extended preference. If one or more of the criteria is not fulfilled in the schedule, the preference is counted as unfulfilled.

The report answers questions like:

- For last week, did we do a good job of meeting our agents' preferences each day?

Use the **Not defined** option in the team and agent selection to show logged data which is not connected to any agent and team.

**NOTE** The dates of the preferences are shown according to the agent's time zone.

## Page location

WFM > Reports > Preference per day

## Measures

- Must haves
- Fulfilled
- Unfulfilled
- Fulfillment %

## Related topics

- [Preference per Agent report](#)
- [WFM standard reports](#)

### Queue Statistics report

This report shows the “raw” queue data per interval. This is useful to validate the queue statistics in WFM based on the queue statistics in the ACD platform. All interval data is summarized per day to facilitate further calculations.

The report answers questions like:

- What are the basic stats of each queue for each interval of a day?

 **NOTE** The report does not show the statistics per skill.

Use the **Not defined** option in the skill and workload selection to show logged queue data which is not connected to any skill and workload.

## Page location

WFM > Reports > Queue statistics

## Measures

- Offered calls
- Answered calls
- Answered calls within service level threshold
- Abandoned calls
- Abandoned calls within service level threshold
- Abandoned short calls
- Overflow out calls
- Overflow in calls
- Speed of answer
- Talk time

- After call work time (ACW)
- Handle time
- Time to abandon
- Longest delay in queue, answered
- Longest delay in queue, abandoned

## Related topics

- [WFM standard reports](#)

### Ready-Time Adherence per Agent report

This report shows in detail, interval by interval, how well an agent adheres to their schedule over a period of time. You can only select one agent at a time but for several days. Use the [Ready-Time Adherence per Day report](#) to compare the ready-time adherence for several agents on a selected day.

The **Ready-time adherence per agent** report answers questions like:

- What is Ashley's adherence percentage for the last month?
- What is the adherence percentage of each agent in a graphical format?
- What is my adherence percentage this week?

**NOTE** The **Ready-time adherence per agent** report uses ready-time adherence. It is calculated on interval level and will not completely match the more detailed historical adherence shown in the Adherence tool and the [Adherence per Agent report](#). See [About ready-time adherence](#) for more information on how the adherence percentage is calculated.

The report presents the following information.

- The average **Ready-time adherence** percentage for each day.
- The total deviation in minutes for each day.
- The agent's shifts, where the colors indicate the schedule activities. A striped interval within a shift indicates that there is more than one activity within the interval, for example a 5-minute break within a 15-minute interval.
- The numbers of minutes that the agent was ready or in a call, for each interval. If it shows 0, no ready time is registered for this interval. If it is blank, there is no data at all for this interval.

- The average adherence percentage and the total deviation in minutes, summarized over the selected period.

Ensure to select the ready-time adherence calculation you want to use on the report selection page, as it affects the values shown in the report. Any ready time within two hours before and after the shift is shown in the report, regardless of which adherence calculation that is selected.

**Deviation** and **Ready time** are presented in minutes, but the **Ready-time adherence** percentage is calculated in seconds. Therefore, even if it looks like you have a perfect adherence for each interval, the ready-time adherence percentage for the day can be for example 99,8% since the minute values are rounded.

The data in this report is presented on the shift start date. For example, if the shift starts on Monday at 10:00 PM and ends on Tuesday at 6:00 AM, all intervals of the shift are presented in the Monday report.

Use the **Not defined** option in the team and agent selection to show logged data which is not connected to any agent and team.

**NOTE** This report collects data from different data sources. Because of this, the values in the report might be incorrect for the most recent intervals when you run the report for today.

## Page location

WFM > Reports > Ready-time adherence per agent

## Measures

- Ready time (m)
- Ready-time adherence (%)
- Deviation (m)

## Related topics

- [About ready-time adherence](#)
- [Ready-Time Adherence per Day report](#)
- [Adherence per Agent report](#)
- [WFM standard reports](#)

## Ready-Time Adherence per Day report

This report shows in detail how well the agents adhere to their schedule during a day. Use the report to view the ready-time adherence for a whole team or group, agent by agent and interval by interval for a selected day. You can select several agents at a time but only one day. Use the [Ready-Time Adherence per Agent report](#) to show the ready-time adherence for one agent for a longer period.

The **Ready-time adherence per day** report answers questions like:

- What was the adherence percentage for my team yesterday?

**NOTE** The **Ready-time adherence per day** report uses ready-time adherence. It is calculated on interval level and will not completely match the more detailed historical adherence shown in the Adherence tool and the [Adherence per Agent report](#). See [About ready-time adherence](#) for more information on how the adherence percentage is calculated.

The report presents the following information.

- The average **Ready-time adherence** percentage for each agent.
- The total deviation in minutes for each agent.
- The agents' shifts, where the colors indicate the schedule activities. A striped interval within a shift indicates that there is more than one activity within the interval, for example a 5-minute break within a 15-minute interval.
- The numbers of minutes that the agent was ready or in a call, for each interval. If it shows 0, no ready time is registered for this interval. If it is blank, there is no data at all for this interval.
- The average adherence percentage and the total deviation in minutes, summarized for all selected agents.

Ensure to select the ready-time adherence calculation you want to use on the report selection page, as it affects the values shown in the report. Any ready time within two hours before and after the shift is shown in the report, regardless of which adherence calculation that is selected.

**Deviation** and **Ready time** are presented in minutes, but the **Ready-time adherence** percentage is calculated in seconds. Therefore, even if it looks like you have a perfect adherence for each interval, the ready-time adherence percentage for the day can be for example 99,8% since the minute values are rounded.

The data in this report is presented on the shift start date. For example, if the shift starts on Monday at 10:00 PM and ends on Tuesday at 6:00 AM, all intervals of the shift are presented in the Monday report.

Use the **Not defined** option in the team and agent selection to show logged data which is not connected to any agent and team.

**NOTE** This report collects data from different data sources. Because of this, the values in the report might be incorrect for the most recent intervals when you run the report for today.

## Page location

WFM > Reports > Ready-time adherence per day

## Measures

- Ready time (m)
- Ready-time adherence (%)
- Deviation (m)

## Related topics

- [About ready-time adherence](#)
- [Ready-Time Adherence per Agent report](#)
- [Adherence per Agent report](#)
- [WFM standard reports](#)

## Requests per Agent report

This report shows how many requests the agents have initiated during a period of time, summarized per agent. The report shows the type of request (absence, shift trade, overtime or text request) and if the requests have been approved or denied. Any waitlisted requests which are canceled by the agent before they are approved or denied are not listed in the report.

The report answers questions like:

- What absence requests were sent in by each agent last month, and were they approved?
- What shift trade requests were sent in last week and were they approved or not?

The data in this report is always shown in the agents' local time zones.

Use the **Not defined** option in the team and agent selection to show logged data which is not connected to any agent and team.

## Page location

WFM > Reports > Requests per agent

## Measures

- Application date
- Request period
- Requests
- Requested days

## Related topics

- [WFM standard reports](#)

## Schedule Audit Trail report

This report shows all changes that are made to the schedule. It requires that the audit trail is enabled.

The report answers questions like:

- Who made a change to Ashley's schedule for next week, and exactly when was it made?
- What changes were made to Monday's schedule? I need to keep my team accountable for the changes that were made.

You can filter it on any field in the report. Data can be exported to Excel.

## Page location

WFM > Reports > Schedule audit trail

## Measures

- Modified at—The date and time when the change happened.
- Modified by—The name of the user who made the change.

**NOTE** If a schedule change is modified by "WFM System", this means that the schedule is changed because an absence request, overtime request, or shift trade request has been automatically approved.

- Agent—The agent whose schedule was changed.
- Type—The type of item that was changed; shift, absence or day off.
- Action—The type of change which was made and where in the product it was made.
- Details—More information about the shift category, absence type or day off.
- Start time—The start time of the shift, absence or day off.
- End time—The end time of the shift, absence or day off.

## Related topics

- [General Audit Trail report](#)
- [WFM standard reports](#)

## Scheduled Agents per Activity report

This report shows the number of agents (FTEs) that are scheduled per activity and interval. It also shows a summary of the total number of agents that are scheduled for the selected interval. Select several days at the time to make it easier to compare a specific intraday period over time.

The report answers questions like:

- How many agents are scheduled on a break between 10:00 AM and 1:00 PM today?
- How many agents were scheduled on each activity by interval?
- How many agents were scheduled to be on the phone from 11:30 AM to 11:45 AM yesterday?
- What was the maximum number of agents who were scheduled to go to lunch at one time yesterday?

## Page location

WFM > Reports > Scheduled agents per activity

## Measures

- Number of agents

## Related topics

- [WFM standard reports](#)

### **Scheduled Agents per Interval and Team report**

This report shows the number of agents (heads) that are scheduled for the selected activities per team and interval. It also shows a summary of the total number of agents scheduled for the selected teams and activities.

The report answers questions like:

- How many agents did Richard's team have on the phones yesterday?
- How many agents were scheduled yesterday in total, regardless of activity and sorted by team?

Use the **Not defined** option in the team and agent selection to show logged data which is not connected to any agent and team.

## Page location

WFM > Reports > Scheduled agents per interval and team

## Measures

- Activity
- Number of agents

## Related topics

- [WFM standard reports](#)

### **Scheduled Overtime per Agent report**

This report shows the scheduled overtime per agent, date and overtime type. You can drill down from team totals, agent and date.

The report answers questions like:

- How much overtime did each agent have scheduled last week?
- How many hours of overtime did we schedule last month?

Use the **Not defined** option in the team and agent selection to show logged data which is not connected to any agent and team.

## Page location

WFM > Reports > Scheduled overtime per agent

## Measures

- Overtime

## Related topics

- [WFM standard reports](#)

## Scheduled Time per Activity report

This report shows the scheduled time per activity. It shows a matrix and a pie chart of all scheduled time, summarized by day and activity. This gives you an overview of where time is spent.

The report answers questions like:

- How much coaching time did we schedule for our agents in total over the last month?
- How many hours of meetings were scheduled in the last quarter?

Use the **Not defined** option in the team and agent selection to show logged data which is not connected to any agent and team.

## Page location

WFM > Reports > Scheduled time per activity

## Measures

- Scheduled time

## Related topics

- [WFM standard reports](#)

### **Scheduled Time per Agent report**

This report shows the scheduled time for an agent and how the time is divided by days, activities and absences. You can drill-down from team, agent, date and activity or absence totals.

The report answers questions like:

- How much paid time did we schedule yesterday?
- How much absence time did we have last month?

Use the **Not defined** option in the team and agent selection to show logged data which is not connected to any agent and team.

### **Page location**

WFM > Reports > Scheduled time per agent

### **Measures**

- Contract time
- Work time
- Paid time
- Scheduled overtime
- Absence time
- Scheduled time
- Planned overtime

### **Related topics**

- [WFM standard reports](#)

### **Service Level and Agents Ready report**

This report shows how the service level is affected by the number of agents ready. The charts on the first page of the report give you an overview and the second page contains all matrix data.

The report answers questions like:

- What was my service level compared to the number of agents that were scheduled?
- How can I see how well the contact center was staffed throughout the day compared to my volumes?
- How many offered calls per agent do we have according to the schedule and what was the outcome?
- How many calls do we answer within our service level goal and how many calls are abandoned?
- Did we have as many agents ready as we scheduled?

Ensure to select what service level calculation to use in the report selection page.

Use the **Not defined** option in the skill and workload selection to show logged queue data which is not connected to any skill and workload.

## Page location

WFM > Reports > Service level and agents ready

## Measures

- Offered calls
- Answered calls
- Abandoned calls
- Answered calls within service level threshold
- Answered calls after service level threshold
- Abandoned calls within service level threshold
- Scheduled agents ready
- Agents ready
- Answer rate %
- Service level %

## Related topics

- [WFM standard reports](#)

## Shift Category and Full-Day Absence per Agent report

The report shows the number of shifts of a specific category, days off and full-day absences that have been scheduled for a specific agent during a selected period.

The report answers questions like:

- How many shifts of each shift category did we schedule last week?
- How many full-day absences did we have last month?

The data in this report is presented on the shift start date. For example, a shift that starts on Monday at 10:00 PM and ends on Tuesday at 6:00 AM is shown in the Monday report.

An absence is considered a full-day absence when the absence covers the entire underlying shift. If an agent is working overtime on a day off, it is still considered a day off.

The data in this report is always shown in the agents' local time zones.

Use the **Not defined** option in the team and agent selection to show logged data which is not connected to any agent and team.

## Page location

WFM > Reports > Shift category and full-day absence per agent

## Measures

- Shift category
- Absence
- Day off

## Related topics

- [Shift Category and Full-Day Absence per Day report](#)
- [WFM standard reports](#)

## Shift Category and Full-Day Absence per Day report

This report shows the number of shifts with a certain shift category and the number of full-day absences per day for one or more teams and agents.

The report answers questions like:

- How many shifts did we schedule in each category by day?
- How many late shifts were scheduled last week?
- How many people called in sick each day last month?

The data in this report is presented on the shift start date. For example, a shift that starts on Monday at 10:00 PM and ends on Tuesday at 6:00 AM is shown in the Monday report.

The data in this report is always shown in the agents' local time zones.

Use the **Not defined** option in the team and agent selection to show logged data which is not connected to any agent and team.

## Page location

WFM > Reports > Shift category and full-day absence per day

## Measures

- Shift category
- Absence
- Day off

## Related topics

- [Shift Category and Full-Day Absence per Agent report](#)
- [WFM standard reports](#)

## Shift Category per Day report

This report shows the number of shifts of a specific category that have been scheduled for a selected period.

The distribution percentage is also shown.

The report answers questions like:

- How many of each shift category were scheduled yesterday?
- How many graveyard shifts did we have last month, by day?
- What percentage of our shifts were at 8:00 AM last month?

## Analyze business intelligence data | Standard reports

The data in this report is presented on the shift start date. For example, a shift that starts on Monday at 10:00 PM and ends on Tuesday at 6:00 AM is shown in the Monday report.

The data in this report is always shown in the agents' local time zones.

Use the **Not defined** option in the team and agent selection to show logged data which is not connected to any agent and team.

### Page location

WFM > Reports > Shift category per day

### Measures

- Shift category

### Related topics

- [WFM standard reports](#)

### Team Metrics report

Use this report to evaluate how well each team has performed in relation to how they were scheduled. It shows for example the ready-time adherence, occupancy, and answered calls. You can drill-down to a specific date in the selected period.

The report answers questions like:

- What are the basic stats of my team, broken down by team and day, regardless of which queue the interaction came in on?

Ensure to select the ready-time adherence calculation to use in the report selection page.

Use the **Not defined** option in the team and agent selection to show logged data which is not connected to any agent and team.

To view same metrics per agent, use the [Agent Metrics report](#).

### Page location

WFM > Reports > Team metrics

## Measures

- Scheduled ready time (hh:mm:ss)
- Ready time (hh:mm:ss)
- Ready time / Scheduled ready time (%)
- Answered calls
- Answered calls / Scheduled ready hour
- Occupancy (%)
- Ready-time adherence (%)

## Related topics

- [WFM standard reports](#)
- [About ready-time adherence](#)