



## **Webex WFO and Webex Contact Center Integration Guide**

### **For Deployments with Classic WFM**

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# Audience

- The integration's supported and unsupported features
- High-level architecture overview
- Configuration procedures
- Specific integration details

This integration guide is primarily designed for customers as well as official Cisco partners who typically install and configure Webex WFO for customers. Additionally, Cisco implementation engineers, support engineers, sales engineers, development, and marketing can find helpful information in this guide.

# Cisco Webex Contact Center 1.0 and 2.0 Overview

There are two versions of the integration between Webex WFO and Cisco Webex Contact Center (CWCC). Those versions are CWCC version 1.0 and CWCC version 2.0. These versions are compatible with different sets of APIs that are called 1.0 (legacy) APIs, CMSv2 APIs (transitional APIs that are used to transition CWCC 1.0 deployments to CWCC 2.0), and 2.0 (programmatic APIs).

See [Configuration Procedures](#) for more information on which procedure to follow based on which APIs your deployment uses.

**IMPORTANT** CWCC 1.0 appears in the Webex WFO product as Cisco Customer Journey Platform.

## Version and feature availability

Version and feature	CWCC 1.0 with legacy CMSv1 APIs	CWCC 1.0 to 2.0 with CMSv2 APIs	CWCC 2.0 with legacy CMSv1 APIs	CWCC 2.0 with Programmatic APIs
Stereo recording	N/A	Available	Available	Available
Audio pause and resume (manual only)**	Available	Available	Available	Available
Screen recording pause and resume (manual only)**	Available	Available	N/A	Available

**NOTE** For pauses (hold events) Webex WFO inserts silence for audio recordings and inserts a blank screen for screen recordings.

\*\*Cisco Webex Contact Center (CWCC) has two options for pause and resume. One option is for manual pause and resume, which uses Cisco Agent Desktop. The second option is for automated pause and resume, which requires Cisco APIs. For the API-based option, the API commands have to be sent to the Cisco Smart Desktop software for it to redact audio. Redacted audio from the pause and resume data is synced from

CWCC to Webex WFO. Once Webex WFO ingests the redacted audio, if screen recording is involved, Webex WFO auto-redacts the screen based off of the redacted audio prior to the contact being presented in Webex WFO. Both manual and automated pause and resume options require the user to have Cisco Agent Desktop software installed. The Webex WFO manual and automated pause and resume options are not applicable to the CWCC integration. Webex WFO automatic pause and resume is not available because the RTP signal, which is required for Webex WFO initiated automated events, is not going through Webex WFO.

**IMPORTANT** Pause and resume must be enabled by Cisco. Please contact your Cisco Account Manager to request access.

# Introduction

Webex WFO is a unified workforce optimization (WFO) software suite that integrates with Cisco Webex Contact Center to provide call recording, quality management, workforce management, voice-of-the-customer (VoC) analytics, and data management. The details around the supported integrations are listed below.

**NOTE** Supported features are available in both Webex Contact Center version 1.0 and Webex Contact Center version 2.0 unless otherwise stated.

## Quality Management (QM)

### Available Features

Feature	Supported	Currently Unsupported
Webex WFO records audio		X
Webex WFO imports audio recording from Cisco Webex Contact Center	X Version 1.0: Minimum of a two-hour delay before import.  Version 2.0: Contact import occurs when the recording is made available to Webex WFO from Webex Contact Center.	
Webex WFO screen recording	X	
Webex WFO storage required for storing audio in the cloud	X	
Cloud-to-cloud integration for data transfer	X Data transfer via APIs is built into the integration	
Webex WFO ingests audio recording pause and resume (manual and automatic)	See <a href="#">Cisco Webex Contact Center 1.0 and 2.0 Overview</a> for information on the current availability of audio recording pause and resume, screen recording pause and resume, and stereo recording.	



Feature	Supported	Currently Unsupported
Webex WFO ingests screen recording pause and resume (manual and automatic)		
Stereo recording		
Custom metadata	X	
	2.0 only	
Recordings encrypted	X	
Speech energy events		X
Live voice monitoring	X	
	Available via Webex Contact Center Call Monitoring	
Live screen monitoring	X	
	via Webex WFO Smart Desktop client	
Sync supported	X	
	Users, Teams, and Queues	
Contact metadata import	X	
Supports multichannel integration		X*
CRM integration	X**	
Agent web recording controls and recording controls API		X***
Voice channels	X	
Digital channel - Chat	X	
	See <a href="#">About Webex WFO Digital Channel Support</a>	

Feature	Supported	Currently Unsupported
Digital channel - SMS	X	
	See <a href="#">About Webex WFO Digital Channel Support</a>	
Digital channel - Email	X	
	See <a href="#">About Webex WFO Digital Channel Support</a>	

*\*Cisco supports the import of text contacts from other sources with additional Cisco Technical Support involvement; however, Cisco Webex Contact Center currently does not have an API for access to text contact content. Chat and other text contacts handled in Cisco Webex Contact Center cannot be imported into Webex WFO.*

*\*\*Open product integration review.*

*\*\*\* Start/stop API controls are available for screen only recording. Additional Cisco Technical Support may be required to implement any API driven screen only recording.*

**NOTE** Tagging calls with Webex WFO custom metadata in chunk recording scenarios is not supported.

**NOTE** Screen recordings are recorded in 10 minute chunks for the duration that the agent is logged in. Screen recordings matching the times of audio received from CWCC are assembled by the desktop client from these chunks and uploaded.

## Edge Components

Component	Required	Not Required
Data Server for sync, capture, real-time events, and media import	X	
Smart Desktop for screen recording, live screen monitoring, and desktop analytics features	X	
Smart Desktop on Windows OS	(available)	
Smart Desktop on Mac OS		(unavailable)

## Workforce Management (Classic WFM)

**IMPORTANT** Classic WFM has been declared End of Sale as of December 1st, 2023 and is no longer available for purchase.

WFM is a unified, user-focused software with a modern approach. Hone forecasting, streamline scheduling and administration, and free managers to focus on adding value. Put the right people in the right places. Empower them to work smarter and deliver a consistent and outstanding customer experience.

### Available Features

Feature	Supported	Currently Unsupported
Historical data	X	
Real-time data	X	
Forecasting	X	
Scheduling	X	
Sync supported	X	
Users, Teams, and Queues		

*\* Historical data capture that is older than six months may require a Professional Services engagement if the data is not directly available in Webex Contact Center.*

## Analytics

### Available Features

Feature	Supported	Currently Unsupported
Speech Analytics (Phonetics)	X**	
Available for on-premise deployments only		

Feature	Supported	Currently Unsupported
Speech Analytics (Speech-to-Text)	X**	
Desktop Analytics	X*	Not synced with recordings
Text Analytics	X	Hold events (pauses) are reflected as blank white space with no transcription.
Dashboards with drill-down	X	
Predictive Evaluation Score	X	
Predictive NPS	X	
Sentiment Analysis	X	
Agent Smart Benchmarking	X	
Advanced Speech Search	X	

*\*Desktop Analytics data is available in Analytics dashboards and Data Explorer. However, because of how desktop data is processed, it is unavailable in the Media Player's Desktop panel.*

*\*\* In CWCC version 1.0 stereo recording is currently unavailable; therefore transcriptions are not divided by speaker.*

## Insights

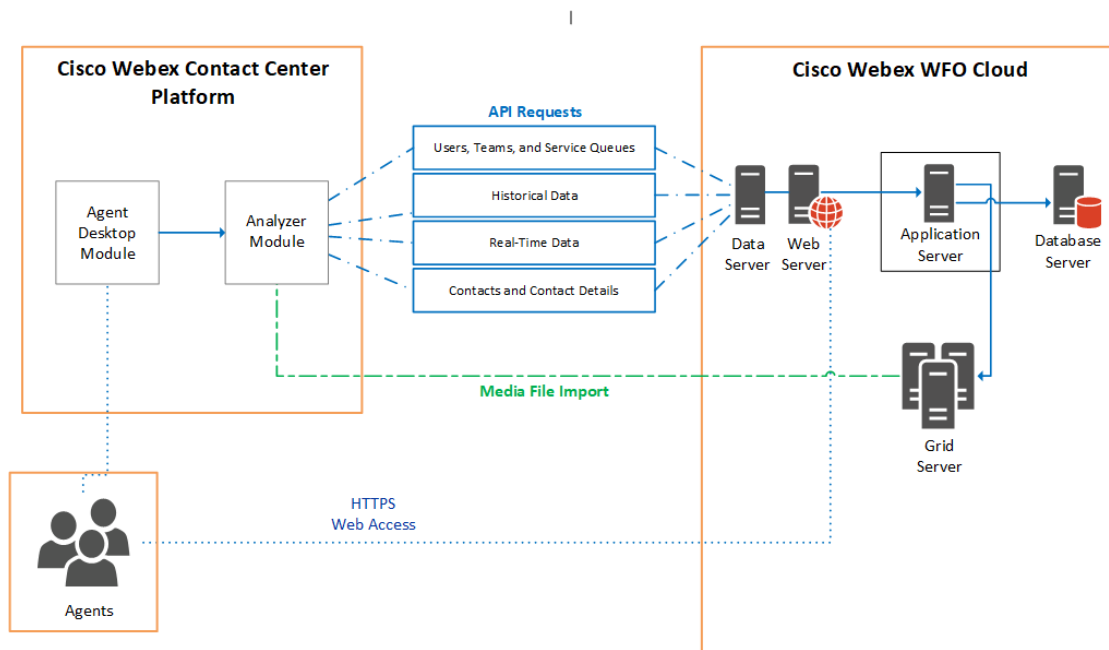
Insights is an AI-powered BI solution that is a core part of the Webex WFO suite. Insights provides blended, non-siloed reporting that enables you to seamlessly combine all of your workforce engagement management and customer interaction data from across Webex WFO. Insights empowers you to visualize your Webex WFO data through actionable reports and dashboards. You need an Insights license for access to the listed features. See [How licenses work](#) and [Manage roles and permissions](#) for more information.

## Available Features

Feature	Supported	Currently Unsupported
Pre-built dashboards	X	
Machine learning powered analysis	X	
Custom themes	X	
Autograph (automated data visualization)	X	
Visual options (custom data visualization)	X	
Dashboard sharing	X	

## Webex WFO and Cisco Webex Contact Center Architecture

The architecture diagram below shows the connection between Cisco Webex Contact Center and the Webex WFO suite. Note that the diagram includes Classic WFM.



# Configuration Procedures

This section explains how to configure the Cisco Webex Contact Center integration with Webex WFO, including Webex WFO WFM. The configuration procedures you need to follow vary depending on which Webex WFO products your organization has purchased and which Cisco APIs are used.

- [Configure Cisco Webex Contact Center](#)
- [Connect to Cisco Webex Contact Center 1.0](#)
- [Connect to Cisco Webex Contact Center 2.0](#)

## Cisco Webex Contact Center 1.0 Configuration Overview

The CWCC 1.0 integration uses Cisco 1.0 APIs and is compatible with Webex WFO QM, Analytics, and Classic WFM. A data server might be required if your implementation includes sync, capture, real-time events, and media import.

Follow the "Connect to Cisco Webex Contact Center 1.0" procedure.

## Cisco Webex Contact Center 2.0 Configuration Overview

The CWCC 2.0 integration can use CMSv2 APIs and 2.0 (programmatic) APIs. A data server might be required if your implementation includes sync, capture, real-time events, and media import.

### CMSv2 APIs

- Compatible with Webex WFO QM, Analytics, and Classic WFM only
- Suitable for users transitioning from CWCC 1.0 to 2.0
- Follow the "Connect to Cisco Webex Contact Center 2.0" procedure

### 2.0 (programmatic) APIs

- Compatible with Webex WFO QM, Analytics, Classic WFM
- If your deployment includes QM, Analytics, or Classic WFM follow the "Connect to Cisco Webex Contact Center 2.0" procedure

## Configure Cisco Webex Contact Center

You need to perform the procedures listed in this topic within your Webex Control Hub prior to setting up the CWCC 2.0 connection in Webex WFO.

**IMPORTANT** Set your Webex admin account username and password credentials to never expire. Cisco revokes access tokens when user credentials expire. Therefore, if your Cisco account username and password credentials expire, then the ACD in Webex WFO needs to be reauthenticated. Reauthentication requires Cisco Technical Support engagement. Supply Cisco Technical Support with the following information.

- Webex Contact Center admin credentials (username and password)
- Webex WFO Tenant ID
- Webex WFO ACD ID
- Webex WFO tenant admin credentials (username and password)
- Webex WFO domain URL (e.g. the "us3" portion in [www.us3.calabriocloud.com](http://www.us3.calabriocloud.com))

## Prerequisites

- The username is in FQDN format.
- The user has access to the Webex CC 2.0 API and Webex CC 2.0 Media API.
- The username cannot be a personal email address.
- The username must be an email address created using Active Directory sync to Cisco or created manually in the Cisco admin portal.

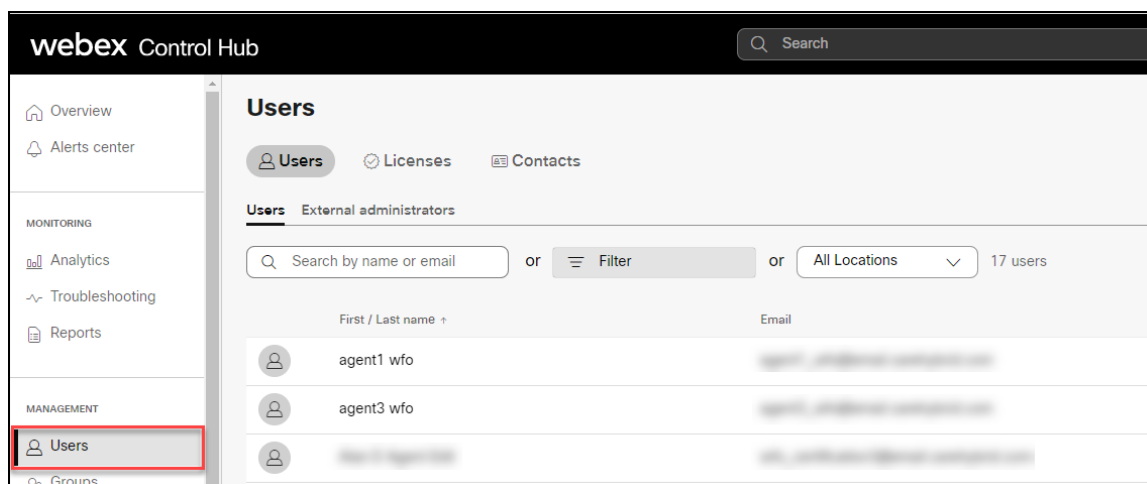
**NOTE** If Active Directory sync is enabled later and the email address does not exist in Active Directory, then the set up in Cisco will be erased. There will be duplicate teams and users caused by synchronization issues with a new email address.

## Configuration Procedures

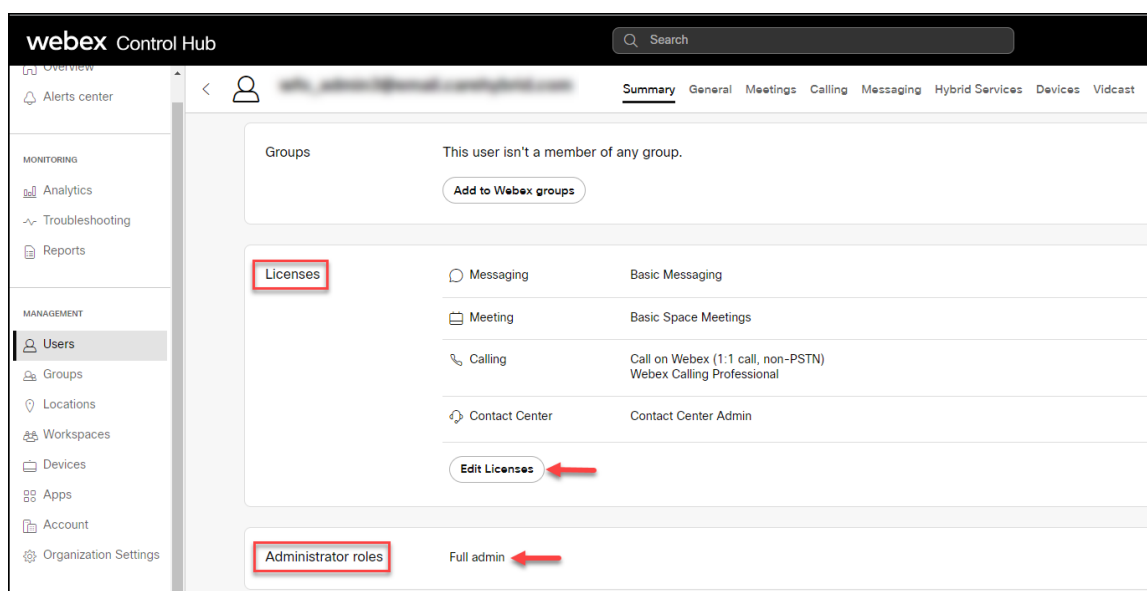
### Assign roles and permissions

The user account used in this procedure is later used to complete the oauth process needed to integrate with Webex WFO.

1. Access the **Webex Control Hub** for administrators by navigating to [admin.webex.com](https://admin.webex.com) and entering your credentials.
2. Click **Users** under **Management** within the left navigation bar.



3. From the **Users** page, select the desired user from the table.
4. Ensure the user has, at a minimum, the licenses and role listed in the table below.



- If the proper licenses are not assigned to the user, click **Edit Licenses** within the **Licenses** section and then click **Edit Licenses** again from the license summary page.
- Modify the licenses as necessary, then click **Save**.
- If the proper roles are not assigned, select the currently assigned role within the **Administrator roles** section on the user's page.
- Modify the roles as necessary, then click **Save**.

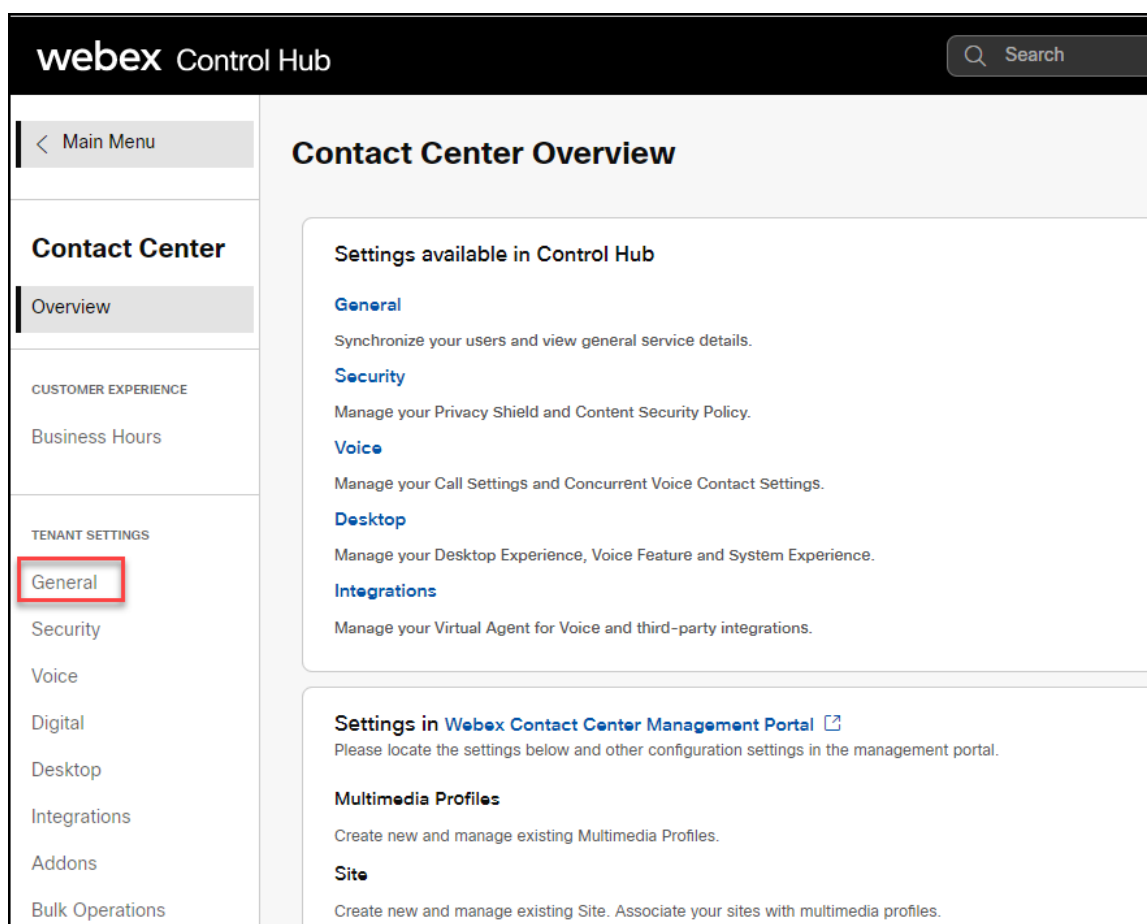


Licenses	
Messaging	Basic Messaging
	Advanced Messaging
Meeting	Basic Space Meetings
	Advanced Space Meetings
	Webex Meetings Suite
Calling	Call on Webex (1:1 call, non-PSTN)
Contact Center	Contact Center Admin
	Licensed Agent > Premium Agent
Role	
Services	Contact center service admin

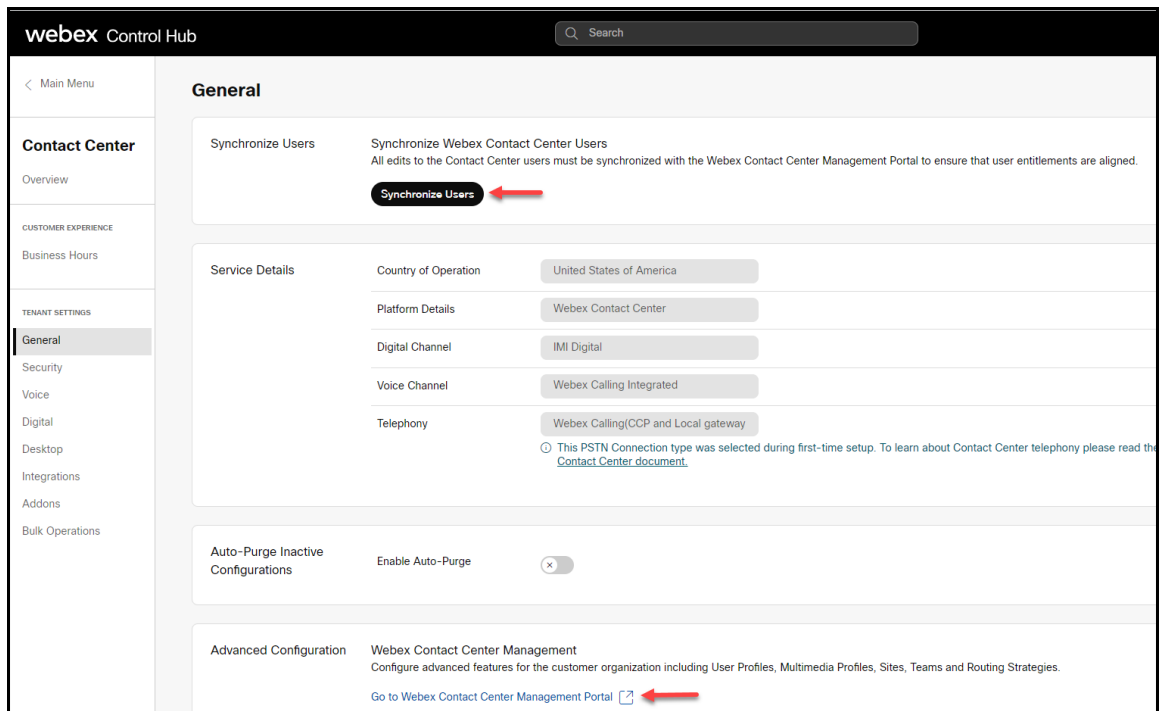
**NOTE** If you experience sync issues, then select the **Organizational admin** check box and assign the **Full admin** role.

## Configure Contact Center settings

1. Navigate to the **Contact Center** page within the left navigation bar **Services** section.
2. Click **General** under **Tenant Settings** in the Contact Center left navigation menu.

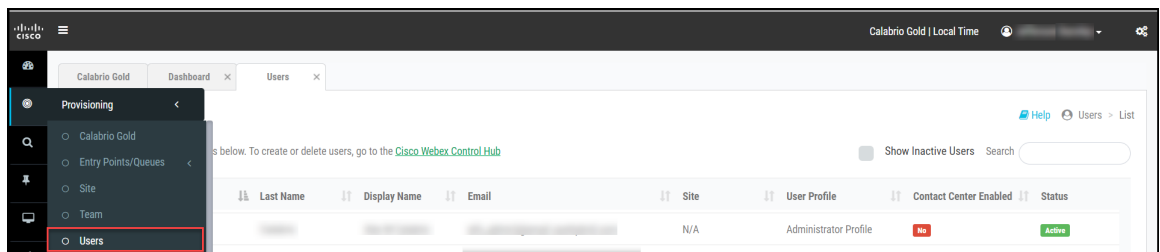


3. Click **Synchronize Users**.

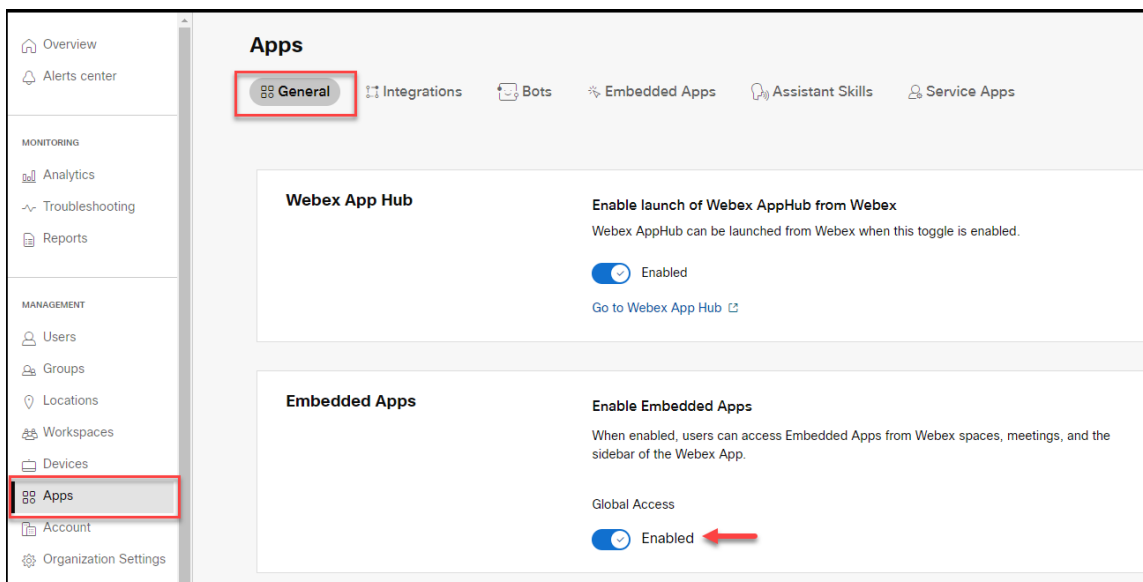


4. Click the **Go to Webex Contact Center Management Portal** link. The Management Portal opens in a separate window.
5. From the Management Portal, ensure that your API account is synced by navigating to **Provisioning** > **Users** from the left navigation bar.

**NOTE** The **Contact Center Enabled** status is **No** for this account.

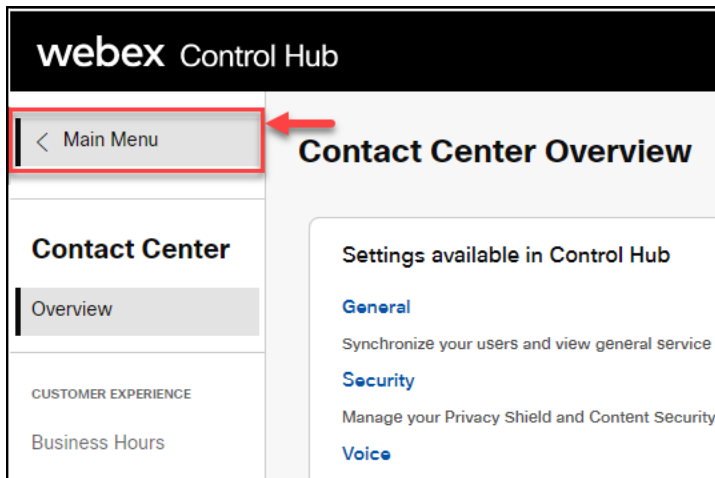


## Configure Apps settings



1. Click **Apps** in the **Management** section of the left navigation bar.

**NOTE** If you are on any of the **Contact Center** pages, then you need to click **Main Menu**

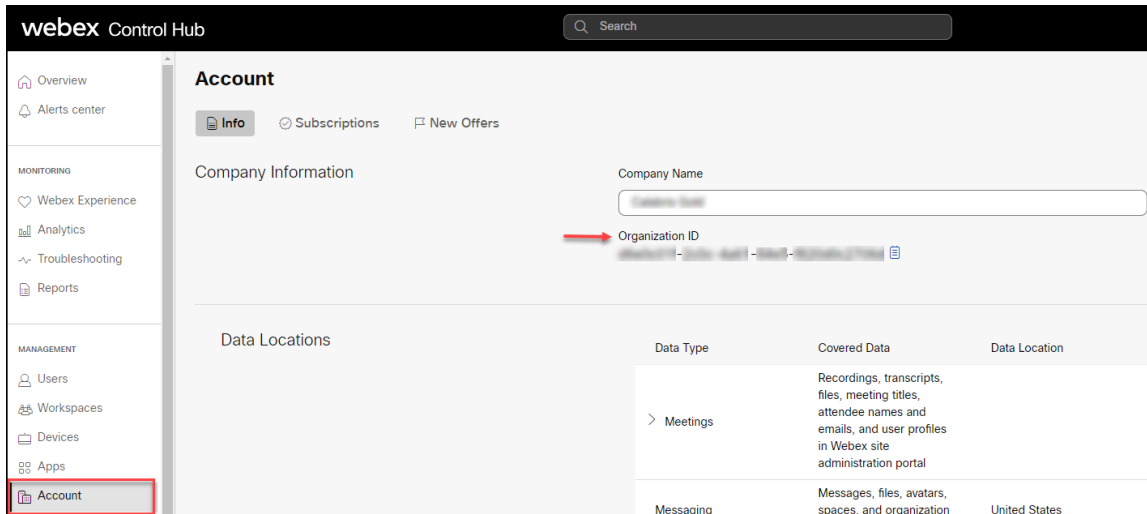


to access the **Apps** page.

2. From the **General** tab of the **Apps** page, switch the **Global Access Enabled** toggle on.

## Locate your Organization ID

1. Navigate to the **Account** page from the left navigation bar.
2. Save your **Organization ID** in an easy-to-access location. Your Cisco Organization ID is required when you set up the connection to CWCC 2.0 in Webex WFO. Your Organization ID is also known as Tenant ID in Webex WFO.



## Map API endpoints

Refer to <https://developer.webex-cx.com/faq/#discoveryAvailability> for the latest definitive list of APIs currently available.

Region	Developer Portal	API
US	<a href="https://developer.webex-cx.com/">https://developer.webex-cx.com/</a>	<a href="https://api.wxcc-us1.cisco.com">https://api.wxcc-us1.cisco.com</a>
ANZ	<a href="https://devportal.wxcc-anz1.cisco.com/">https://devportal.wxcc-anz1.cisco.com/</a>	<a href="https://api.wxcc-anz1.cisco.com">https://api.wxcc-anz1.cisco.com</a>
UK	<a href="https://devportal.wxcc-eu1.cisco.com/">https://devportal.wxcc-eu1.cisco.com/</a>	<a href="https://api.wxcc-eu1.cisco.com">https://api.wxcc-eu1.cisco.com</a>
EU (Frankfurt)	<a href="https://devportal.wxcc-eu2.cisco.com/">https://devportal.wxcc-eu2.cisco.com/</a>	<a href="https://api.wxcc-eu2.cisco.com">https://api.wxcc-eu2.cisco.com</a>
Japan	—	<a href="https://api.wxcc-jp1.cisco.com">https://api.wxcc-jp1.cisco.com</a>

## Validate the configuration

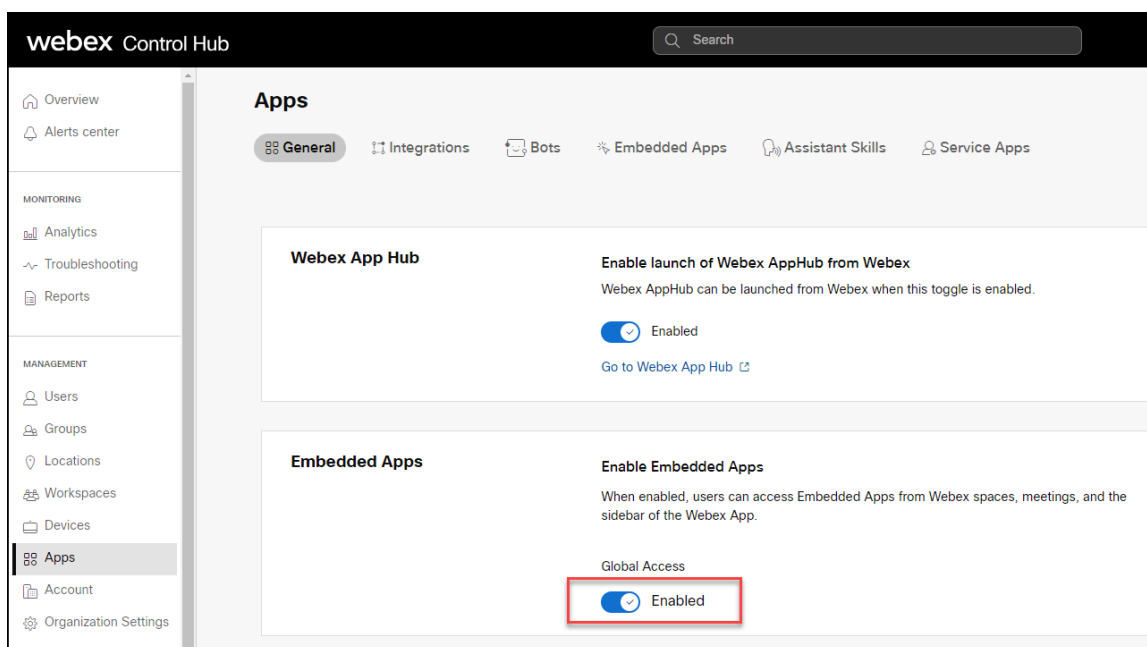
1. Attempt to log into <https://developer.webex-cx.com/> using a private browser window such as Incognito for Chrome or InPrivate for Edge browsers.
2. If your log in attempt fails, open a support ticket with Cisco or your organization's certified partner.

3. Attempt to log into <https://web.webex.com/> using a private browser window such as Incognito for Chrome or InPrivate for Edge browsers.
4. If your log in attempt fails, open a support ticket with Cisco or your organization's certified partner.

## Enable the integration with Pro Pack

**IMPORTANT** Only conduct this procedure if you have Pro Pack.

1. Log into Webex Control Hub at <https://admin.webex.com/>.
2. Click **Apps** under **Management** in the left navigation bar.
3. Under **Embedded Apps**, toggle **Global Access** to **Enabled**.



4. Click **Integrations**.
5. Allow access to the Webex WFO integration by clicking on the integration in the list or by searching for the integration by its App ID. The integration's properties window opens.

Calabrio App ID —

Y21zY29zcGFyazovL3VzL0FQUExJQ0FUSU90L0M5Y2FmZmM3ZGVjZWI3NzkwMGM4OTY3MmM4MT  
VmYjNmYWJjZGI4OGNhYmIYNzNhZj1hNjB1ZTg0YTJjYjQ4NT1m

6. In **Overview**, toggle **Access for Future Users** to **On**.

7. Click **All users**.
8. Click **Save**.

## Connect to Cisco Webex Contact Center 2.0

This section explains how to set up the connection between Cisco Webex Contact Center 2.0 and Webex WFO. The Organization ID is appended to the admin access token when you log in.

**IMPORTANT** Exercise extra caution before you make any changes to the account you use to configure your Cisco Webex Contact Center 2.0 ACD. If you must change the administrator password periodically, then you should follow the [Configure automatic reauthorization](#) procedure immediately after you change the administrator password to ensure the integration's connection does not break.

### Prerequisites

Copy the following information from your Webex Contact Center provider and save it in an easy-to-access location. Follow the procedures detailed in [Configure Cisco Webex Contact Center](#).

- Username — This is a user email address associated with administrative credentials in Cisco Webex Contact Center.
- Your Webex Administrator user must have the required permissions and role(s) in Webex Control Hub for your Webex Contact Center system. See the "Assign roles and permissions" procedure in the [Configure Cisco Webex Contact Center](#) topic for more.
- API URL — The complete base URL of the Webex Contact Center API, including the protocol.
- Tenant ID — This is your Cisco Webex Contact Center Organization ID.

### Configuration Procedures

**BEST PRACTICE** Cisco recommends that you configure CWCC 2.0 in a private browser session such as incognito mode in a Google Chrome or Microsoft Edge browser.

- [Configure CWCC 2.0 using CMSv2 APIs](#)— Follow this procedure if you are an existing customer transitioning from CWCC 1.0 to 2.0 and you have QM, Analytics, or Classic WFM.
- [Configure CWCC 2.0 using 2.0 programmatic APIs](#)— Follow this procedure if your deployment includes QM, Analytics, Classic WFM, or WFM and you are not transitioning from CWCC 1.0 to 2.0.

If you have WFM, you must conduct the [Configure Cisco Webex Contact Center 2.0 for Webex WFO WFM](#) procedure after completing the Configure CWCC 2.0 using 2.0 programmatic APIs procedure.

## Configure CWCC 2.0 using CMSv2 APIs

1. In Webex WFO, navigate to **Application Management>System Configuration>ACD Configuration**.
2. Click **Add**. The **ACD Details** window opens.
3. In the ACD Details window, configure the fields as follows.

Field	Configuration
Select ACD	Select <b>Cisco Customer Journey Platform</b> .
	<div> <b>NOTE</b> Webex WFO currently refers to Webex Contact Center as Cisco Customer Journey Platform. </div>
Name	Enter a unique name for the ACD.

4. Click **OK**.
5. In the **Select ACD** table, select the Cisco Webex Contact Center ACD you just created.
6. Skip the ACD Filtering section. This integration does not support ACD Filtering.
7. Configure the Cisco Customer Journey Platform API section as follows.

Field	Configuration
Cisco Customer Journey Platform API URL	Enter the complete base URL of the Webex Contact Center API that you saved in Step 1, including the protocol identifier.
	<div> <b>EXAMPLE</b> https://rest-tenant.ccone.net/aws/api </div>
Cisco Customer Journey Platform Media API URL	Enter the complete URL of the Webex Contact Center Media API that you saved in Step 1, including the protocol identifier.
	<div> <b>EXAMPLE</b> https://rd-tenant.ccone.net/cr/get-decrypted-recording </div>



Field	Configuration
User Name	Enter the email address of the Webex Contact Center user that you saved in Step 1. This user must be authorized to access the Webex Contact Center API and the Webex Contact Center Media API.
API Key	Enter the API key for the Webex Contact Center API and Webex Contact Center Media API that you saved in Step 1.
Cisco Webex Contact Center 1.0	Select the checkbox. This checkbox enables you to connect to CWCC 2.0 with CMSv2 APIs.
Cisco Tenant ID	Enter the alphanumeric identifier of your Webex Contact Center tenant account. This is your Cisco Organization ID.

8. Configure the Synchronization Interval section as follows.

Section	Description
Interval (Minutes)	<p>Enter how often (in minutes) you want the Data Server to sync users, teams, and service queues in Webex WFO with their equivalents in Webex Contact Center. For more information about syncing with Webex Contact Center, see <a href="#">Core Configuration Data for 1.0</a>.</p> <p>Minimum = 10 minutes.</p>

9. Configure the Capture Settings section as follows.

Field	Description
ACD Capture Delay	Select the amount of time that you want WFM to wait before it imports ACD statistics after an interval ends.
Enable Data Recapture	<p>(Optional) Select the check box if you want to recapture data from the entire previous day.</p> <p>If you routinely handle calls that last longer 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</p>

Field	Description
	captured during the day. This ensures that your statistics are correct and that the data for very long calls is in the correct interval.
Recapture Time	Enter the time of day that you want Webex WFO to recapture the previous day's data from the ACD.

10. (Optional) Select **Enable RTE Messaging for Screen Recording**. This allows you to record the screens of Webex Contact Center agents who are configured for screen recording in Webex WFO. For more information, see [Screen Recording](#).
11. Click **Save**.

## Configure CWCC 2.0 using 2.0 programmatic APIs

1. In Webex WFO, navigate to **Application Management > System Configuration > ACD Configuration**.
2. Under Select ACD, click **Add**.
3. Select **Cisco Webex Contact Center 2.0** from the **Select ACD** drop-down list.
4. Configure the fields as follows.

Field	Configuration
ACD Name	Enter a unique name for the ACD.
Username	Enter your CWCC username. This is a user email address associated with administrative credentials in CWCC.
API URL	Enter the complete base URL of the Cisco Webex Contact Center API, including the protocol identifier.
Tenant ID	Enter the Organization ID of the CWCC tenant account.
Products Enabled - Quality Management	<p><b>Quality Management</b> — Select if your organization has purchased Quality Management.</p> <p>Select the <b>Voice</b> check box if your organization only wants Webex WFO to ingest voice contacts only.</p> <p>Select the <b>Digital (Chat, SMS, Email, Social)</b> check box if your</p>

Field	Configuration
	organization wants Webex WFO to ingest chats and SMS messages, and emails.
Metadata Mapping	<p>(Optional) Allows you to map CWCC metadata to custom metadata labels in Webex WFO. See <a href="#">Sync Metadata to Webex WFO</a> for more details. CWCC metadata values are synced with CWCC contacts into Webex WFO. The CWCC metadata values are mapped to metadata labels created in Metadata Manager (located at Application Management &gt; QM &gt; QM Configuration &gt; Metadata Manager).</p> <p>After successfully mapped, metadata can be used to add a variety of trackable information to a contact in Webex WFO. Metadata fields can be found in the Details panel on the Media Player page (Interactions page &gt; open a contact). You can view, edit, or delete a metadata field from your system.</p>
Synchronization Interval (Minutes)	Indicates how often (in minutes) you want to sync users, teams, and service queues in Webex WFO with their equivalents in Cisco Webex Contact Center.
Capture Delay (minutes)	Sets the amount of time you want WFM to wait before it imports ACD statistics after an interval ends.
Enable Data Recapture	(Optional) Select this check box if you want to recapture data from the entire previous day.
Enable RTE Messaging for Screen Recording	(Optional) Allows you to record the screens of CWCC agents who are configured for screen recording in Webex WFO. For more information, see <a href="#">Screen Recording</a> .
Metadata Language Mapping	<p>This section appears when you select <b>Digital</b> in the <b>Products Enabled</b> section. Here, you can set the custom metadata that assigns a language to a text-based contact like an email or a chat message. The metadata options available come from the <b>Metadata Mapping</b></p>

Field	Configuration
	<p>section.</p> <p>Webex WFO uses a text contact's language to find results when you use the Text Search filter on the Interactions page.</p> <p>Webex WFO assigns a language to a text-based contact using the following information, in this order:</p> <ol style="list-style-type: none"> <li>A language that is already assigned to the contact when it is imported into Webex WFO.</li> <li>A language assigned to a custom metadata field that you configure here (the Metadata Language Mapping section).</li> <li>The fallback language that you configure in the <b>Fallback text language</b> section below.</li> <li>The default language (English).</li> </ol>
Fallback text language	<p>This section appears when you select <b>Digital</b> in the <b>Products Enabled</b> section. Select the language to assign to text contacts if they do not have an associated language when they are imported into Webex WFO and do not have a metadata value as defined in the <b>Metadata Language Mapping</b> section above.</p> <p>Webex WFO uses a text contact's language to find results when you use the Text Search filter on the Interactions page.</p> <p>Webex WFO assigns a language to a text-based contact using the following information, in this order:</p> <ol style="list-style-type: none"> <li>A language that is already assigned to the contact when it is imported into Webex WFO.</li> <li>A language assigned to a custom metadata field that you configure in the <b>Metadata Language Mapping</b> section above.</li> <li>The fallback language that you configure here (the Fallback text language section).</li> </ol>

Field	Configuration
-------	---------------

D. The default language (English).

Authorization URL

**NOTE** This section only appears when you edit an existing ACD. It does not appear when you create a new ACD.

The Webex WFO data servers connect with Webex Contact Center for an access token every twelve hours. If a token refresh failure occurs then the OAuth process breaks.

Configuring this setting allows your system to reestablish the OAuth authentication in the event of a token refresh failure for a maximum of sixty days.

A token refresh failure can occur for several reasons such as the following.

- Changing the email address of the administrator account.
- Deactivating the account in Active Directory.
- Changing the password in Active Directory.
- Switching from Active Directory sync to single sign-on in your Cisco account.
- Changing domains.

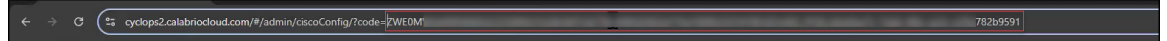
5. Click **Save**. You are redirected to your Cisco Webex Contact Center login page.
6. Enter your Cisco username and password.
7. After successfully entering your Cisco username and password, you are directed back to Webex WFO.

### Configure automatic reauthorization

1. Ensure you are logged out of Cisco Webex Contact Center.
2. In Webex WFO, navigate to **Application Management>System Configuration>ACD Configuration**.
3. Under **Select ACD**, select your Webex Contact Center 2.0 ACD from the **ACD Servers** list and click **Edit**. The Cisco Webex Contact Center 2.0 ACD page opens.
4. Go to the **Authorization URL** section and click the copy icon to copy the URL.

5. Open a private browser such as incognito mode in Google Chrome.
6. Paste the URL in the private browser. You are then routed to the Cisco Webex login page.
7. Enter the login credentials of the administrator account linked to this ACD and sign in. Then, the Webex WFO login page opens.
8. Copy the code string in the address bar. The section you need to copy starts after the equal sign and continues to the end of the URL.

### EXAMPLE



In the example above, the code portion is in the red outlined box starting with Z and ending with 1. Note, part of the code string is blurred out for security purposes.

9. Navigate back to the ACD page for your Webex Contact Center 2.0 ACD.
10. Enter the code in the second text box under **Authorization URL**.
11. Click **Authorize**.
12. Click **Save**.

## Configure a Data Server

1. In Webex WFO, navigate to **Application Management > System Configuration > Data Server Configuration**.
2. From the **Select Data Server Configuration** drop-down list, select the Data Server that you want to use for the Webex Contact Center ACD.

- Configure the following settings.

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

- Click **Save**.

## Sync Metadata to Webex WFO

You can define which Cisco Webex Contact Center (CWCC) metadata values are synced with CWCC contacts into Webex WFO. Metadata can be collected from CWCC's global variable fields or standard fields returned in API endpoint responses. From there, the metadata must be correctly formatted before it can be added to Webex WFO. Configuration is complete once the CWCC metadata is added to Webex WFO and mapped to a Webex WFO metadata label.

This topic details the procedures for collecting and formatting metadata from CWCC API responses, the Webex WFO mapping procedure, and examples. After successfully mapped, metadata can be used to add a variety of trackable information to a contact in Webex WFO. Metadata fields can be found in the Details panel on the Media Player page (Interactions page > open a contact). You can view, edit, or delete a metadata field from your system.

Global variables are custom fields created by Cisco. More information on global variables is available within your CWCC Administrator page. Standard custom metadata fields stem from /search endpoints in CWCC. See Cisco documentation for more information, <https://developer.webex-cx.com/documentation/search/v1/search-tasks>. The following code is a sample /search API response.

Global variables are supported as custom metadata for voice channels and all digital channels.

```
1 | {
```

```

2  "data": {
3    "task": {
4      "tasks": [
5        {
6          "endTime": 1630380960406,
7          "captureRequested": true,
8          "isActive": false,
9          "queue": [
10         {
11           "id": "e434a654-df4c-42dc-908b-3d9d0206a616",
12           "name": "cb_outdial_queue"
13         }
14       ],
15       "status": "ended",
16       "owner": {
17         "name": "callbackorg2user1 callbackorg2user1",
18         "id": "74ab6507-a32a-479c-bda7-15ff0b6c6c3c"
19       },
20       "createdTime": 1629450000000,
21       "id": "fb53f6d1-5535-4ac8-b081-53834e17d6f5",
22       "channelType": "telephony"
23     }
24   ]
25 }
26 }
27 }

```

## Prerequisites

- Cisco Webex Contact Center 2.0 must be configured as an ACD in Webex WFO.
- A metadata label must first be created in Metadata Manager in Webex WFO (located at Application Management > QM > QM Configuration > [Metadata Manager](#)) for each CWCC metadata field you want to map to a Webex WFO metadata label.

You must select **Text** from the **Metadata Type** drop-down list on the Metadata Manager page for the metadata to map.

Ensure the **ACD Data** drop-down list is blank on the Metadata Manager page. All other fields on the Metadata Manager page can be configured as desired.

## Page Location

Application Management > Global > System Configuration > ACD Configuration > Cisco Webex Contact Center 2.0



## Procedures

These procedures details how to collect and format appropriate metadata from CWCC API response endpoints. All metadata must conform to these formats. There are two available formats depending on if standard fields or global variable fields are used. Fields are case sensitive, and do not include any spaces between text.

You can reference to the sample API request below when formatting metadata.

```

1  {
2    taskDetails (
3      from: 1631192040000
4      to: 1654515806364
5      filter: {
6        and: [
7          { channelType: { equals: telephony } }
8        ]
9      }
10   ) {
11     tasks {
12       id
13       stringGlobalVariables(name: "Global_VoiceName") {
14         name
15         value
16       }
17     }
18   }
19 }
```

- Standard metadata fields must be formatted as  
**<task or taskDetails>.<fieldName>**
- Global variable metadata fields must be formatted as  
**<task or taskDetails>.<GlobalVariableName>:<Data Type>**

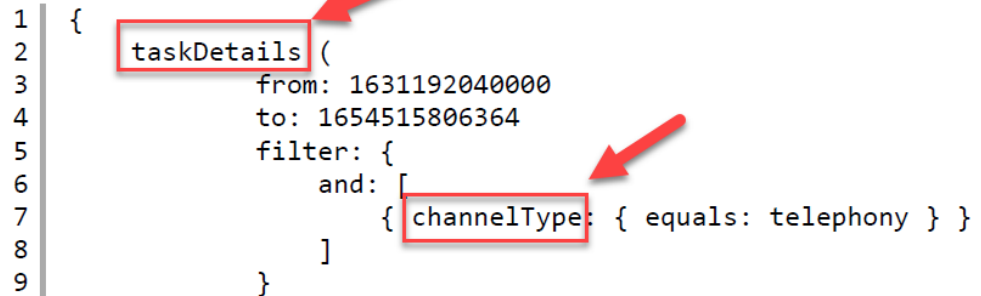
### Collect and format CWCC standard metadata fields

1. Select the appropriate prefix based on the CWCC API response. The endpoints fall into two categories; they are **<taskDetails>** and **<task>**.

Use the text, **taskDetails** , as a prefix for all taskDetails responses.

Use the text, **task**, as a prefix for all task responses.

**EXAMPLE** You decide you want to collect metadata on "channelType". In the sample API request, "channelType" falls in the taskDetails category. Therefore you use the text **taskDetails**



```

1 {
2   taskDetails (
3     from: 1631192040000
4     to: 1654515806364
5     filter: {
6       and: [
7         { channelType: { equals: telephony } }
8       ]
9     }

```

2. Add a period. Do not add any spacing.

**EXAMPLE** **taskDetails.**

3. If there are no hierarchy levels in the metadata you are collecting, add the field name and format the metadata value as follows. Fields are case sensitive, and do not include any spaces between text.

<task or taskDetails>.<fieldName>

**EXAMPLE** **taskDetails.channelType**

4. If there are hierarchy levels in the metadata you are collecting, format the metadata value as follows, with no spaces between the text. Your CWCC 2.0 metadata is now ready to be mapped to Webex WFO metadata labels.

<task or taskDetails>.<level-one-fieldName>.<level-two-fieldName>

## Collect and format CWCC global variable metadata fields

Global variables contain the text `GlobalVariables` in the API response.

1. Select the appropriate prefix based on the CWCC API response. The endpoint prefixes fall into two categories; they are <taskDetails> and <task>.

Use the text, **taskDetails** , as a prefix for all taskDetails responses.

Use the text, **task**, as a prefix for all task responses.

**EXAMPLE** You decide you want to collect metadata on "Global\_VoiceName". In the sample API request, "Global\_VoiceName" name falls in the tasks category. Therefore you use the text **task**

```

 9      }
10    ) {
11      tasks {
12        id
13        stringGlobalVariables(name: "Global_VoiceName") {
14          name
15          value
16        }
17      }
18    }
19  }
```

2. Add a period after the prefix.

**EXAMPLE** **task.**

3. Find and copy the global variable name as it appears in the API response and then add it to your formatted text.

**EXAMPLE** **task.Global\_VoiceName**

4. Add a colon.

**EXAMPLE** **task.Global\_VoiceName:**

5. Find the data type located in the same line as the global variable name. Capitalize the first letter of the data type.

Below, is a list of all supported Cisco global variables and data types.


- **integerGlobalVariables**— where <Integer> is the data type.
- **stringGlobalVariables**— where <String> is the data type.
- **longGlobalVariables**— where <Long> is the data type.
- **doubleGlobalVariables**— where <Double> is the data type.
- **booleanGlobalVariables**— where <Boolean> is the data type.

**EXAMPLE**

```

9      }
10     ) {
11         tasks {
12             id
13             stringGlobalVariables(name: "Global_VoiceName") {
14                 name
15                 value
16             }
17         }
18     }
19 }

```



The data type in this example is string. The first letter of the data type must be capitalized.

Therefore, use `String` and add it to your formatted text.

**`task.Global_VoiceName:String`**

6. Ensure your formatted text is in the following format. Fields are case sensitive, and do not include any spaces between text. Your CWCC 2.0 metadata is now ready to be mapped to Webex WFO metadata labels.

`<task or taskDetails>.<GlobalVariableName>:<Data Type>`

## Map CWCC metadata in Webex WFO

1. Navigate to the **Cisco Webex Contact Center 2.0** ACD configuration page.
2. Within the **Metadata Mapping** section, click **Add Mapping**.
3. In the text box under **ACD Metadata Name**, enter a CWCC metadata value that is properly formatted.
4. Click the drop-down list under the **Metadata Label** column, and select a metadata label from the list of options.
5. Click the check icon to save the metadata mapping.

**EXAMPLE**

**Metadata Mapping**

Complete the following fields to map the ACD metadata fields to Calabrio ONE metadata labels.

ACD Metadata Name	Metadata Label
taskDetails.channelTy	Channel Type

- (Optional) Click **Add Mapping** to add additional metadata mappings and repeat as desired.
- Click **Save** in the top-right corner of the page.

## Metadata options from sample requests

The following shows the available metadata options for task.

task metadata options in a sample request

```

1  {
2    task(
3      from: 1631111190000
4      to: 1634123120000
5      filter: {
6        and: [
7          { channelType: { equals: telephony } }
8        ]
9      }
10   ) {
11     tasks {
12       id
13       status
14       channelType
15       createdTime
16       endedTime
17       origin
18       destination
19       contactReason
20       direction
21       owner { id name }
22       entryPoint { id name }
23       terminationType
24       channelSubType
25       customer { name phoneNumber email }
26       isActive
27       isCallback
28       channelMetaData { email { subject metaData } }

```

```

29         callbackData {
30             callbackRequestTime
31             callbackConnectTime
32             callbackNumber
33             callbackStatus
34             callbackOrigin
35             callbackType
36         }
37         recordingLocation
38         lastWrapupCodeName
39         lastQueue { id name }
40         lastSite { id name }
41         lastTeam { id name }
42         lastEntryPoint { id name }
43         totalDuration
44         csatScore
45         blindTransferCount
46         conferenceCount
47         conferenceDuration
48         consultCount
49         consultDuration
50         holdCount
51         holdDuration
52         selfserviceCount
53         selfserviceDuration
54         connectedCount
55         connectedDuration
56         consultToQueueCount
57         consultToQueueDuration
58         transferCount
59         wrapupDuration
60         ringingDuration
61         queueDuration
62         queueCount
63         captureRequested
64     }
65 }
66 }

```

**The following shows the available metadata options for taskDetails.**

taskDetails metadata options in a sample request

```

1  {
2      taskDetails(
3          from: 1631192040000
4          to: 1634648040000
5          filter: {
6              and: [
7                  { channelType: { equals: telephony } }
8              ]
9          }
10     ) {
11         tasks {

```

```

12         id
13         status
14         channelType
15         createdTime
16         endedTime
17         origin
18         destination
19         contactReason
20         direction
21         owner { id name }
22         entryPoint { id name }
23         terminationType
24         channelSubType
25         customer { name phoneNumber email }
26         isActive
27         isCallback
28         channelMetaData { email { subject metaData } }
29         callbackData {
30             callbackRequestTime
31             callbackConnectTime
32             callbackNumber
33             callbackStatus
34             callbackOrigin
35             callbackType
36         }
37         recordingLocation
38         lastWrapupCodeName
39         lastQueue { id name }
40         lastSite { id name }
41         lastTeam { id name }
42         lastEntryPoint { id name }
43         totalDuration
44         csatScore
45         blindTransferCount
46         conferenceCount
47         conferenceDuration
48         consultCount
49         consultDuration
50         holdCount
51         holdDuration
52         selfserviceCount
53         selfserviceDuration
54         connectedCount
55         connectedDuration
56         consultToQueueCount
57         consultToQueueDuration
58         transferCount
59         wrapupDuration
60         ringingDuration
61         queueDuration
62         queueCount
63         captureRequested
64     }
65 }
66 }

```

## Unsupported arrays

Lists and arrays are not supported for custom metadata. The following table specifies which arrays are not supported .

Unsupported arrays	Description
queues	Queue Information.
sites	ID, name of the physical contact center location to which the task was distributed.
teams	ID, name of the team to which the call was distributed.
contributors	Agents who have handled the task.
entryPoints	ID, name of the initial landing place of a contact in CWCC.



# Integration Details for Cisco Webex Contact Center

This section explains how data from Cisco Webex Contact Center integrates with Webex WFO once the two systems are connected.

## About Webex WFO Digital Channel Support

Webex WFO provides digital channel support for your CWCC multichannel or omnichannel system. With Webex WFO digital channel support, the audio recordings, chat transcripts, and SMS transcripts from your CWCC system are ingested by Webex WFO, visualized, and accessible on the **Interactions** page. Digital channel support ensures a comprehensive view of interactions and a seamless user experience within Webex WFO across channels. Double-click on any interaction on the **Interactions** page to access the interaction's data.

The terms multichannel and omnichannel contact centers are not synonymous. They have distinct differences in how they are defined. Multichannel contact centers support various communication channels. The supported channels can include phone calls, emails, web chat, social media, and more. Each channel operates independently, with its own queue and agents specialized in handling that particular channel. However, each channel is siloed, which can result in fractured communications. This means, when a customer moves from one channel to another, the customer interaction loses continuity and context during the journey.

Whereas omnichannel contact centers provide a seamless and integrated experience across all communication channels. Channels are interconnected, allowing customers to start a conversation on one channel and continue it on another without repeating information. Omnichannel solutions allow agents to know each customer's history and handle customer requests quickly in all communication channels.

**EXAMPLE** An example of an omnichannel experience is when an interaction starts as a chat, then the agent and customer continue the interaction with a phone call. Information from the chat channel and voice channel are connected using an integrated omnichannel solution.

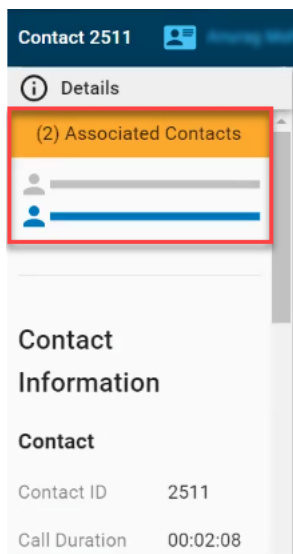
## Supported contact scenarios

The following scenarios are supported.

- Inbound/outbound messaging
- Transfers
- Conferences

**NOTE** Conferences are not supported for email channels.

**EXAMPLE** The interaction depicted in this image includes a transfer, which is why two legs of the chat are available within the Associated Contacts section. Within the Associated Contacts section, you can select different agents in the chat or SMS transcript. Blue depicts the selected agent. The full chat or SMS transcript displays no matter which agent is selected; however, the selected agent appears in blue speech boxes on the right side of a transcript log.



## Procedures

### Enable digital channels

1. In Webex WFO, navigate to **Application Management > ACD Configuration**.
2. Click **Add** in the **Select ACD** section. The **ACD Details** window opens.
3. Select **Cisco Webex Contact Center 2.0** from the **Select ACD** drop-down list to access the ACD configuration page.
4. Within the **Products Enabled** section, click **Quality Management**.
5. Click **Digital (Chat, SMS, Email, Social)**.
6. Click **Save**.
7. Restart the data server to ensure the changes take effect.

### Filter for chat, SMS, email, or social media transcripts on the Interactions page

1. In Webex WFO, navigate to **Interactions**.
2. Within the **Filters** pane, click the **Contact Type** drop-down list within the Filters column.

3. Select **Chat** for chat transcripts, **SMS** for SMS transcripts, or **Email** for email transcripts.
4. Click **Apply**.

## Limitations

The Start Screen and Stop Screen Recording Controls commands apply to screen-only interactions without an audio contact associated with them. This can be used to capture the behavior on the screen while an agent handles a digital interaction, but it does not connect the digital interaction transcript with the interaction details.

## Chat Support

When your customer uses chat to contact an agent configured on CWCC, the chat and data associated with the chat are ingested into Webex WFO. Each agent involved in the chat has full chat transcript of the entire interaction not just their individual leg of the interaction.

Each leg of an interaction has a **contact ID**, which is the chat's unique ID. An **associated contact ID** is the identifier that connects an original contact with all derivative legs of the contact that are ingested into Webex WFO. A chat can have multiple legs if it has transfers or conferences.

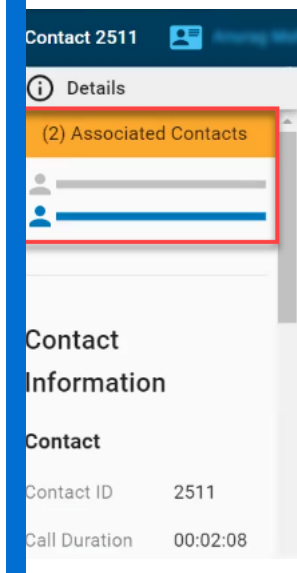
This means each leg of a chat has a unique contact ID, and all derivative legs of a chat have the same shared associated contact ID. After selecting a chat, you can view all associated chats in the chat transcript displayed on the Interactions page. See [View data associated with a contact](#) for more information.

## Prerequisites

- You have Cisco Contact Center Desktop (Agent dashboard).
- You have a Cisco chat widget configured for Cisco Contact Center Desktop.

**NOTE** If there are additional agents associated with the chat you selected due to transfers or conferences, view the additional agents' chat transcripts by clicking on the agent in the Associated

contacts section of the Details pane.



## Limitations

- Chat transcripts are only available within your organization where the CWCC ACD is configured. Chats that occur with third party organizations are not available. If a chat is transferred to a third party, Webex WFO only provides data for the agent's portion of the chat prior to the transfer.
- Associated contact IDs remain consistent for all legs of a text chat (including transfers and conferences). While associated contact IDs remain consistent for all legs of a voice call (including transfers and conferences). However, associated contact IDs differ between the text chats and voice calls from a single customer journey.

## SMS Support

When your customer and an agent exchange SMS messages, also known as text messages, the SMS messages and the data associated with those SMS messages are ingested into Webex WFO. Each agent involved in the conversation has a full SMS transcript of the entire interaction, not just their individual leg of the interaction. Each leg of an interaction has a contact ID, which is the SMS interaction's unique ID. An associated contact ID is the identifier that connects an original contact with all derivative legs of the contact that are ingested into Webex WFO. A SMS conversation can have multiple legs if it includes transfers or conferences.

This means each leg of a SMS has a unique contact ID, and all derivative legs of a SMS have the same shared associated contact ID. After selecting a SMS contact on the Interactions page, you can view all associated SMS messages in the Media Player (**Interactions** > Double-click a contact to view its SMS transcript). See [View data associated with a contact](#) for more information.

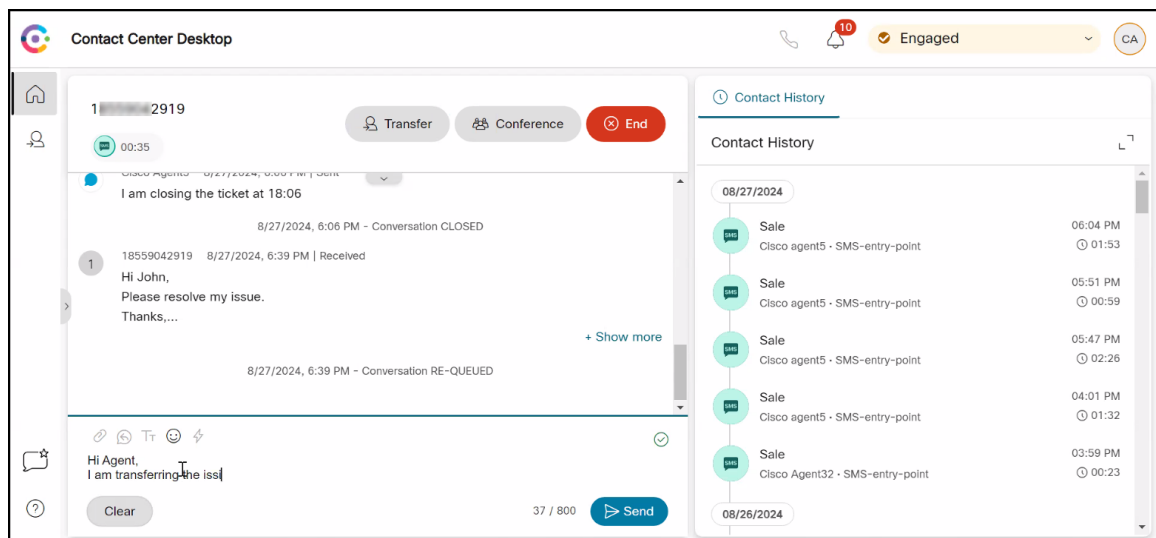
## Prerequisites

- You have Cisco Contact Center Desktop (Agent dashboard).
- You have a valid phone number configured as a SMS queue.

## Example flow

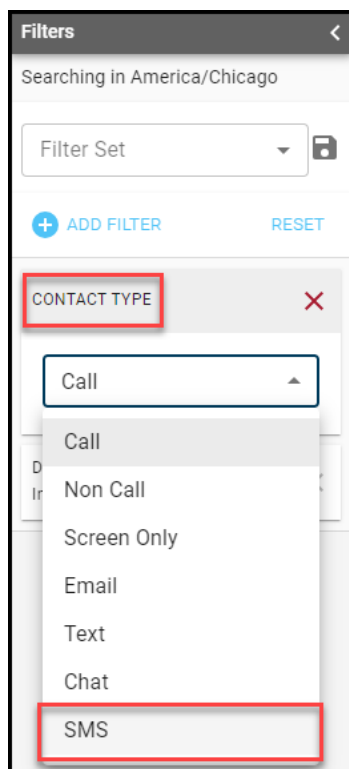
This example illustrates a typical SMS conversation between a customer and Webex Contact Center agent.

1. A customer uses a cell phone to contact an agent.
2. The customer contact appears in the Contact Center Desktop queue, and the agent accepts.
3. The customer and agent exchange SMS messages for a few minutes, and then the agent ends the chat.



4. Agents must end the conversation by clicking the **End** button in their Contact Center Desktop system before Webex WFO can ingest SMS transcripts and SMS data.
6. In Webex WFO, locate your SMS transcripts by navigating to the **Interactions** page. Ensure **Contact Type** has been selected as a filter, filter for **SMS** messages, and select a SMS from the list

of interactions.



7. (The Contact Type filter drop-down list on the Interactions page)

## Limitations

- SMS transcripts are only available within your organization where the CWCC 2.0 ACD is configured. SMS messaging that occurs with third-party organizations are not available. If a SMS conversation is transferred from your organization's contact center to another third-party organization, then the transcript for that portion of the SMS conversation will not be available in Webex WFO.
- Associated contact IDs remain consistent for all legs of a SMS conversation (including transfers and conferences). While associated contact IDs remain consistent for all legs of a voice call (including transfers and conferences). However, associated contact IDs differ between the SMS conversations and voice calls from a single customer journey.

**EXAMPLE** A customer interaction includes a SMS conversation with one agent, then the SMS conversation is transferred to a second agent, and finally the second agent and the customer have a five-minute phone call before ending the interaction. Within Webex WFO, both the initial SMS conversation with the customer and the first agent and the continued

MS conversation that was transferred to the second agent, have the same associated contact ID. The five-minute phone call between the customer and the second agent has a different associated contact ID.

- Webex WFO only ingests chat and SMS interactions if **Quality Management** is enabled and the **Digital (Chat, SMS)** check box is selected on the **Cisco Webex Contact Center 2.0 ACD Configuration** page. If you are making configuration changes on this page, double-check to make sure you do not accidentally disable chat and SMS.

## Email Support

### Prerequisites

- You have Cisco Contact Center Desktop (Agent dashboard).
- You have a valid phone number configured as an email queue.

### Example flow

This example illustrates a typical email interaction between a customer and agent that is ingested into Webex WFO.

1. A customer sends an email.
2. The email message appears in a Cisco Contact Center Desktop (Agent dashboard) queue and is picked up by an agent.
3. The customer and agent exchange email messages for a few minutes.

**NOTE** Agents must end the conversation before Webex WFO can ingest digital channel data.

4. In Webex WFO, locate email transcripts by navigating to the **Interactions** page and select an email interaction from the list.

## Complex call events

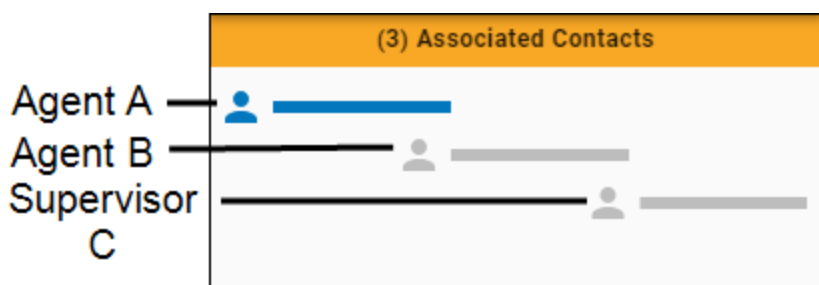
This topic describes how Webex WFO handles complex call scenarios. Complex call scenarios are various actions that can take place during a call. They include transfers, conferences, holds, and parked calls. In Cisco Webex Contact Center 2.0, a segment is formed when there's a participant change, such as, when an agent joins a call for a consult.

In Webex WFO an audio call and all of its associated data, such as screen recordings and metadata, is referred to as a contact. Associated contact ID is the identifier that connects an original call with all derivative legs of the call that are recorded in Webex WFO. This means each resulting contact shares the same Associated contact ID as the original call. You can view associated contacts in the Media Player (Interactions > Double-click a contact).

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 contact 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 ends.

### 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 contact ID.



## Prerequisites

- The Segment Recording and Consult Leg Recording feature flags need to be enabled within your Cisco account. Contact Cisco support services for assistance.
- This is a new feature that is not yet generally available. If you would like early access to this feature, contact your Cisco Account Manager.
- You need to have RTMS enabled. Contact Cisco Technical Support to configure RTMS for your organization.
- You need to have Webex Contact Center version 2.0 configured. See [Connect to Cisco Webex Contact Center 2.0](#) for more information.



- A metadata label must first be created in Metadata Manager in Webex WFO (located at Application Management > QM > QM Configuration > [Metadata Manager](#)) for each CWCC metadata field you want to map to a Webex WFO metadata label.
  - You must select **Text** from the **Metadata Type** drop-down list on the Metadata Manager page for the metadata from CWCC to map to a metadata label.
 

**BEST PRACTICE** Enter "call type" as the **Text** from the **Metadata Type** drop-down list.
  - Ensure the **ACD Data** drop-down list is blank on the Metadata Manager page. All other fields on the Metadata Manager page can be configured as desired.

## Page location

Application Management > System Configuration > ACD Configuration

## Procedure

### Map metadata in Webex WFO

You need to map custom metadata with the values, "Customer segment" and "Consult".

1. Navigate to the **Cisco Webex Contact Center 2.0** ACD configuration page.
2. Within the **Metadata Mapping** section, click **Add Mapping**.
3. In the text box under **ACD Metadata Name**, enter "Customer segment".
4. Click the drop-down list under the **Metadata Label** column, and select the call type metadata label you created as a prerequisite from the list of options.
5. Click the check icon to save the metadata mapping.

### EXAMPLE

#### Metadata Mapping

Complete the following fields to map the ACD metadata fields to Calabrio ONE metadata labels.

ACD Metadata Name	Metadata Label
taskDetails.channelTy	Channel Type

✓ ✕

+ ADD MAPPING
Save Mapping

6. Click **Add Mapping** to add an additional metadata mapping.
7. In the text box under **ACD Metadata Name**, enter "Consult".
8. Click the drop-down list under the **Metadata Label** column, and select the call type metadata label you created as a prerequisite from the list of options.
9. Click the check icon to save the metadata mapping.
10. Click **Save** in the top-right corner of the page.

## Complex call event types

- **Transfers** — Webex WFO segments the call by the number of times that it was transferred. For each transfer, Webex WFO creates a separate contact, and it associates each contact with the agent who handled that segment of the transferred call.
- **Conferences** — Webex WFO segments the original call into two contacts. The first contact in Webex WFO is associated with the agent who answered the customer's call. The second contact is associated with the agent who was brought into the call. The recording for the first agent's contact spans the entire time the agent is involved on the call. The recording for the second contact only spans the time that the second agent joined the call.
- **Cold (blind)** — Webex WFO uses "cold (blind)" to describe both transfer and conference scenarios. This descriptor involves routing an existing call directly to an additional agent without any communication between the two agents before the transfer or conference takes place.
- **Warm** — Webex WFO uses "warm" to describe both transfer and conference scenarios. This descriptor means the first agent speaks to the second agent to provide relevant context and background information before the transfer or conference takes place. The consultation portion of a warm transfer or conference is included in contact recordings.
- **Parks** — In parked scenarios Webex WFO segments the call into two contacts. The recording for the first contact spans the time before the call was parked. The recording for the second contact spans the time after the call was retrieved from park. Meaning, parking a call ends a contact, and retrieving a parked call creates a new contact.
- **Consults** — The first contact is associated with the agent who answered the customer's call, and the second contact is associated with the agent who was brought into the call for a consultation. The recording for the first contact spans the entire length of the customer's call. The recording for the second contact spans only the length of time that the agents were consulting.

The following table details different call event types and if Webex WFO supports them.

Type	Supported	Description
Call accepted/ended	Yes	An agent accepts a customer call, and the call ends without any call events, such as holds or transfers, taking place.
Hold/Resume	Yes	A customer is put on hold. Hold music is played on the customer's leg of the call.
Pause and resume (manual)	Yes	<p>A call is paused. Pause and resume adheres to PCI compliance standards. Unlike hold/resume, no hold music is played on the customer's leg of the call; only silence is heard.</p> <p>A user must manually trigger pause and resume within their Cisco Webex CC system, and Webex WFO recognizes the manual trigger.</p>
Cold (blind) transfer	Yes	A call is transferred from one agent to another agent.
Warm transfer		
Cold conference	Yes	A call interaction with two or more agents.
Warm conference		
Park	No	A call is put on hold (parked), and the call can be picked up (retrieved) by the same agent.

**NOTE** Screen recording is supported for the first agent in a call. Screen recording is not supported for transferred call legs.

## Screen Recording

Screen recording is captured through Webex WFO Smart Desktop, not Cisco Webex CC.

## Prerequisites

For screen recording to function, you must ensure that the following features and components are correctly configured.

Feature	Configuration
Smart Desktop	Webex WFO Smart Desktop must be installed and operating on the PCs

Feature	Configuration
	<p>where agents log on to Webex CC, and each Smart Desktop must be configured to use RTE messaging.</p> <p>RTE messaging is configured by selecting the <b>Enable RTE Messaging for Screen Recording</b> check box on the ACD Configuration page for Webex CC.</p> <p>RTE messaging enables connected Smart Desktop clients to record screen recordings in ten-minute segments when a correctly-configured user logs on to Webex CC.</p>
Webex WFO Users	<p>When Webex WFO syncs with Webex CC, it imports and syncs agents as Webex WFO users who have Webex CC user profiles. Only users with Webex CC user profiles can be screen recorded.</p> <p>These users must have the following additional configurations on the Users page:</p> <ul style="list-style-type: none"> <li>■ Activate this user — Must be selected.</li> <li>■ Roles — Must be assigned to a role that is associated with the Capture Contacts and Record Screen permissions.</li> <li>■ Windows Login — Must be the same as the Windows login that the Webex CC agents use to log on to the PC.</li> </ul>

## Capturing screen recordings

The following list provides an overview of how Webex WFO captures screen recordings for Webex CC agents.

1. Agent logs on to a PC with Smart Desktop.

When a user who is correctly configured in Webex WFO logs on to a PC where Smart Desktop is operating and configured to use RTE messaging, Smart Desktop begins to capture screen recordings in ten-minute segments that it saves locally. It does not yet upload any screen recordings to Webex WFO.

The screen recording segments are encrypted on the desktop. Calabrio uses a two-factor encryption process using Symmetric AES-CBC-256 and Asymmetric RSA-CBC-2048 to handle authentication and encryption of screen recording files.

Smart Desktop stores these segments in the following location:

C:\Program Files (x86)\Common Files\Calabrio ONE\Desktop\recordings

2. Agent handles the contact in Webex CC.
3. Webex WFO imports the contact's audio recording and metadata.
4. Webex WFO extracts and uploads the screen recording from the agent's PC.

Once Webex WFO uploads contacts from Webex CC, it begins the process of extracting and uploading matching screen recordings. Webex WFO does this by relaying timestamps for each contact to the appropriate agent PC.

When Smart Desktop receives these timestamps, it crops and splices the screen recording segments into a single screen recording that matches the duration of the contact. Then, it uploads the screen recording to Webex WFO.

Screen recording segments that are not associated with any contact are analyzed to verify that no discrepancies have occurred, then deleted. If Smart Desktop loses its connection to Webex WFO, it executes a recovery process when it reconnects to ensure that it creates screen recordings for all contacts handled by the agent in the meantime.

**EXAMPLE** An agent handles a contact at the end of the day, then shuts down the PC before Webex CC makes the contact available to Webex WFO. When the agent turns on the PC the next day, Smart Desktop reconnects to Webex WFO, and Webex WFO extracts and uploads the screen recording then.

5. Agent logs out.

When the agent logs out, Smart Desktop stops recording new screen segments.

# Appendix

Refer to the appendix for content pertaining to version 1.0 of the Cisco Webex Contact Center integration.

## Core Configuration Data for 1.0

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

### Users

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

When someone changes user data in Webex Contact Center, 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 Webex Contact Center are not imported unless they are restored.

Change in Webex CC	Resulting Change in Webex WFO
New user is added.	<div>New user is added. Specifically, the sync service:<ul style="list-style-type: none"><li>■ Applies the Webex Contact Center user’s first and last name to the Webex WFO user’s first and last name.</li><li>■ Applies the Webex Contact Center 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><div><b>NOTE</b> Webex WFO does not preserve the relationship between Webex Contact Center users and teams. See <a href="#">Teams</a>.</div><ul style="list-style-type: none"><li>■ If the Webex Contact Center user is contact-center enabled, assigns the default agent role to the Webex WFO user. No other Webex WFO roles are synced with Webex Contact Center.</li></ul></div>

Change in Webex CC	Resulting Change in Webex WFO
	<b>NOTE</b> If you remove the agent role from a Webex WFO user who is synced with a Webex Contact Center user who is contact-center enabled, the agent role will be reassigned the next time Webex WFO syncs with Webex Contact Center.
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 Webex Contact Center teams of any type (Capacity Based or Agent Based), as long as they are active. It does not preserve the relationship between Webex Contact Center users and Webex Contact Center teams.

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

Change in Webex CC	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 Webex Contact Center users and Webex Contact Center teams.
User is removed from a team	No change. Webex WFO does not preserve the relationship between Webex Contact Center users and Webex Contact Center 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 Webex Contact Center.

A Webex WFO user can belong to only one team.

## Service Queues

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

- Queues
- Outdial Queues

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

Change in Webex CC	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 Webex Contact Center queue name to the Webex WFO service queue name</li><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 Webex Contact Center</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 Webex Contact Center queue name to the skill mapping name</li><li>■ Assigns the Webex WFO service queue that is associated with the Webex Contact Center queue to the skill mapping and gives it a priority of 1.</li></ul>
Queue name is changed	Applies the new Webex Contact Center queue name to the Webex WFO service queue name only. Webex WFO does not apply the new Webex Contact Center queue name to the associated Webex WFO skill mapping.
Queue is deleted	No change. Neither the service queue nor the skill mapping is deleted.

## Connect to Cisco Webex Contact Center 1.0

This section explains how to set up the connection between Cisco Webex Contact Center 1.0 and Webex WFO.



## Step 1: Gather Information from Your Webex Contact Center Provider

Gather the following API information from your Webex Contact Center provider and save it in an easy-to-access location:

- Complete base URL of the Webex Contact Center API, including the protocol.
- Complete base URL of the Webex Contact Center Media API, including the protocol.
- Email address of the Webex Contact Center user who is authorized to access both the Webex Contact Center API and the Webex Contact Center Media API.
- API key for the Webex Contact Center API and Webex Contact Center Media API.

When you configure the ACD connection with Webex Contact Center in Webex WFO, you will need this information to complete the Webex Contact Center API section.

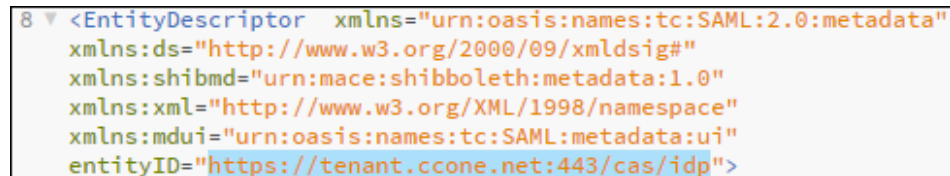
If you are planning to use Webex Contact Center as an identity provider (IdP) for SAML authentication, also gather the following information from the SAML metadata file (provided by Webex Contact Center) and save it in the same easy-to-access location.

**NOTE** The following example images show Cisco Webex Contact Center 1.0 APIs.

- Entity ID

### EXAMPLE

The entity ID is highlighted in the following image.




```
8 <EntityDescriptor xmlns="urn:oasis:names:tc:SAML:2.0:metadata"
  xmlns:ds="http://www.w3.org/2000/09/xmldsig#"
  xmlns:shibmd="urn:mace:shibboleth:metadata:1.0"
  xmlns:xml="http://www.w3.org/XML/1998/namespace"
  xmlns:mdui="urn:oasis:names:tc:SAML:metadata:ui"
  entityID="https://tenant.ccone.net:443/cas/idp">
```

- Single sign-on redirect URL

### EXAMPLE

The single sign-on redirect URL is highlighted in the following image.



```
91 <SingleSignOnService Binding="urn:oasis:names:tc:SAML:2.0:bindings:HTTP-POST-
SimpleSign" Location="https://tenant.ccone.net/idp/profile/SAML2/POST-
SimpleSign/SSO"/>
92 <SingleSignOnService Binding="urn:oasis:names:tc:SAML:2.0:bindings:HTTP-Redirect"
Location="https://tenant.ccone.net/idp/profile/SAML2/Redirect/SSO"/>
```

- Identity provider certificate

### EXAMPLE

The identity provider certificate is highlighted in the following image.



## Step 2: Configure Webex Contact Center as an ACD in Webex WFO

Next, add and configure Webex Contact Center as an ACD in Webex WFO.

**NOTE** Webex WFO currently refers to Webex Contact Center as Cisco Customer Journey Platform.

### Add Webex Contact Center as an ACD

- In Webex WFO, navigate to Application Management > System Configuration > ACD Configuration.
- Click **Add**.
- In the ACD Details dialog box, configure the fields as follows.

Field	Configuration
Select ACD	Select <b>Cisco Customer Journey Platform</b> .
Name	Enter a unique name for the ACD.

- Click **OK**.

### Configure the Webex Contact Center ACD

- In the ACD Servers table, select your Webex Contact Center ACD.
- Skip the ACD Filtering section. This integration does not support ACD Filtering.
- Configure the Cisco Customer Journey Platform API section as follows.

Field	Configuration
Cisco Customer Journey Platform API URL	Enter the complete base URL of the Webex Contact Center API that you saved in Step 1, including the protocol identifier.  <b>EXAMPLE</b> <code>https://rest-tenant.ccone.net/aws/api</code>
Cisco Customer Journey Platform Media API URL	Enter the complete URL of the Webex Contact Center Media API that you saved in Step 1, including the protocol identifier.  <b>EXAMPLE</b> <code>https://rd-tenant.ccone.net/cr/get-decrypted-recording</code>
User Name	Enter the email address of the Webex Contact Center user that you saved in Step 1. This user must be authorized to access the Webex Contact Center API and the Webex Contact Center Media API.
API Key	Enter the API key for the Webex Contact Center API and Webex Contact Center Media API that you saved in Step 1.
Cisco Webex Contact Center 1.0	Select only if you are using Webex Contact Center 2.0. This enables CMSv2 API requests.
Cisco Tenant ID	Enter the alphanumeric identifier of the Webex Contact Center tenant account. This is your Cisco OrgId.

4. Configure the Synchronization Interval section as follows.

Section	Description
Interval (Minutes)	Enter how often (in minutes) you want the Data Server to sync users, teams, and service queues in Webex WFO with their equivalents in Webex Contact Center. For more information about syncing with Webex Contact Center, see <a href="#">Core Configuration Data for 1.0</a> .  Minimum = 10 minutes.

5. Configure the Capture Settings section as follows.

Field	Description
ACD Capture Delay	Select the amount of time that you want WFM to wait before it imports ACD statistics after an interval ends.
Enable Data Recapture	<p>(Optional) Select the check box if you want to recapture data from the entire previous day.</p> <p>If you routinely handle calls that last longer 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 of day that you want Webex WFO to recapture the previous day's data from the ACD.

- (Optional) Select **Enable RTE Messaging for Screen Recording**. This allows you to record the screens of Webex Contact Center agents who are configured for screen recording in Webex WFO. For more information about screen recording, see [QM Data for 1.0](#).
- Click **Save**.

## Step 3: Configure the Data Server

### Configure a Data Server for a Cisco Webex Contact Center ACD

- In Webex WFO, navigate to **Application Management > System Configuration > Data Server Configuration**.
- From the **Select Data Server Configuration** drop-down list, select the Data Server that you want to use for the Webex Contact Center ACD.

3. Configure the following settings.

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

4. Click **Save**.

### (Optional) Step 4: Enable SAML Authentication

Configure the Data Server to capture and process data from Webex Contact Center.

Webex WFO can be configured as a service provider that uses a third-party IdP.

#### Enable SAML authentication

1. In Webex WFO, navigate to Application Management > Administration > Authentication.
2. Select **Enable SAML Authentication**.
3. Configure the fields as follows.

Field	Description
Name	Enter a unique name for the identity provider.
Issuer ID	Enter the Entity ID that you saved in Step 1.
Single Sign On URL	Enter the single sign-on redirect URL that you saved in Step 1.
Identity Provider Certificate	Import the identity provider certificate that you saved in Step 1.

4. Click **Save**.

## QM Data for 1.0

QM allows you to monitor and evaluate how well your agents respond to the contacts that they receive.

### Audio Recording

When QM is connected to Cisco Webex Contact Center, contacts are created and recorded in Webex Contact Center.

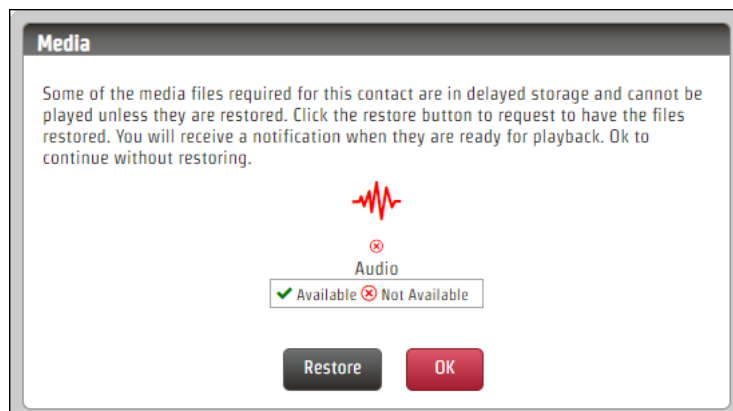
To import a contact, Webex WFO first imports contact metadata through an API request. Then, it imports the audio recording through another API request, matches the audio recording with the contact metadata, and associates the contact with the agent who handled it.

When multiple agents handle a contact in Webex Contact Center (for example, when one agent transfers the contact to another agent), Webex WFO uses metadata to segment the contact into a matching number of contacts that it then associates with the individual agents involved. Specifically, Webex WFO determines when agents were active on the call through Start and End timestamps and segments the contact accordingly. Each resulting contact in Webex WFO has its own metadata and audio recording.

It can take up to two hours for Webex Contact Center to make a contact available to Webex WFO. Sometimes, it can take longer for the audio recording associated with the contact to be uploaded.

#### NOTE

If you double-click a contact that does not yet have an uploaded audio recording, you receive the following message:



However, in this situation, the recording is not in delayed storage, and clicking “Restore” does not cause the recording to be restored. The recording is available for playback only once the audio file upload state changes from “File not yet uploaded” to “File is uploaded.”

The following sections describe how Webex WFO segments Webex Contact Center contacts that involve consultations, transfers, or conferences.

## Consultations

Webex WFO segments the Webex Contact Center contact into two contacts that have the same associated contact ID.

The first contact is associated with the agent who answered the customer's call, and the second contact is associated with the agent who was brought into the call for a consultation. The recording for the first contact spans the entire length of the customer's call. The recording for the second contact spans only the length of time that the agents were consulting.

During consultation, Webex Contact Center records the customer only, not the agents.

### EXAMPLE

Webex WFO imports a contact where Agent Braun consulted with Agent Hodges for 42 seconds. Webex WFO segments this contact into two contacts, 29 and 30.

The recording associated with contact 29 has a duration of 00:02:21, which is the entire length of time that Agent Braun was connected to the customer. The recording associated with contact 30 has a duration of 00:00:42, which is only the length of time that Agent Hodges was consulting with Agent Braun.

Both recordings have the same associated contact ID.

These contacts can be selected and played back one by one with the Media Player. All associated contacts appear in the Associated Contacts tab, where they can also be selected and played back.

## Transfers

Webex WFO segments the Webex Contact Center contact by the number of times that it was transferred. For each transfer, Webex WFO creates a separate contact, and it associates each contact with the agent who handled that segment of the transferred call.

All segments of a transferred call have the same associated contact ID.

### EXAMPLE

Webex WFO imports a contact where Agent Braun transferred the contact to Agent Hodges.

Webex WFO segments this contact into two contacts, 27 and 28. The recording for contact 27 has a duration of 00:00:44, which is the length of time that Agent Braun was connected to the customer before he transferred the contact to Agent Hodges. The recording for contact 28 has a duration of 00:01:14, which is the length of time that Agent Hodges was connected to the customer before the contact ended.

Both recordings have the same associated contact ID.

These contacts can be selected and played back one by one with the Media Player. All associated contacts appear in the Associated Contacts tab, where they can also be selected and played back.

## Conferences

Webex WFO segments the Webex Contact Center contact into two contacts that have the same associated contact ID.

The first contact is associated with the agent who answered the customer's call, and the second contact is associated with the agent who was brought into the call for a consultation and then for a conference. The recording for the first contact spans the entire length of the customer's call. The recording for the second contact spans only the length of time that the agents were consulting and on the conference call.

During the consultation, Webex Contact Center records the customer only, not the agents. During the conference call, Webex Contact Center records both the customer and the agents.

### EXAMPLE

Webex WFO imports a contact from Webex Contact Center where Agent Braun consulted with Agent Hodges and then brought Agent Hodges into a conference call.

Webex WFO segments this contact into two contacts, 31 and 32. The recording for contact 31 has a duration of 00:02:09, which is the entire length of time that Agent Braun was connected to the customer. The recording for contact 32 has a duration of 00:01:00, which is only the length of time that Agent Hodges was consulting and then on a conference call with Agent Braun.

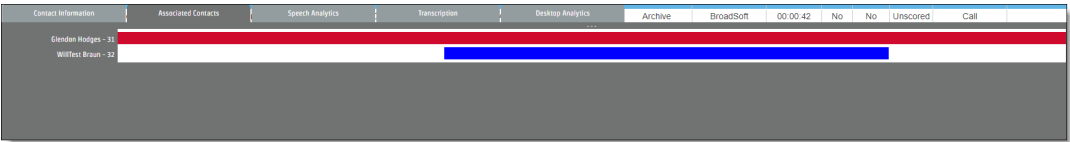
Both recordings have the same associated contact ID.

Contact ID	Last Name	Call Duration	Associated Call ID	Video File Upload State	Audio File Upload State
32	Braun	00:01:00	40f653524a4b4b70b607d95514029769	No File to Upload	File is uploaded
31	Hodges	00:02:09	40f653524a4b4b70b607d95514029769	No File to Upload	File is uploaded

These contacts can be selected and played back one by one with the Media Player. All associated contacts appear in the Associated Contacts tab, where they can also be selected and played back.



The following image shows the Media Player when contact 31 is selected. From the Associated Contacts tab, contact 32 can also be selected and played back.



**Contact Metadata**

Webex WFO does not import any custom metadata from Webex Contact Center 1.0, including the following:

- Call-associated data
- Wrap-up codes

The following table summarizes how contact metadata from Webex Contact Center 1.0 is mapped to equivalent contact metadata in QM.

Webex CC	QM
Agent	Last Name, First Name
ANI	Calling Number
DNI	Called Number
Date	Date, Time
User TID	Agent ACD ID
Session ID	Associated Contact ID

Webex WFO supports custom metadata mapping for CWCC 2.0. See [Sync Metadata to Webex WFO](#) for more information.

**Classic WFM Data for 1.0**

WFM allows you to schedule agents and forecast agent scheduling requirements, as well as monitor whether your agents are following their schedules.

## Historical Data

Webex WFO imports historical data for service queues and agents through four API requests. It can take up to two hours for Webex Contact Center historical data to be available in Webex WFO. Real-time data is not impacted.

## Service Queue Historical Data

This API request imports historical data for each Cisco Webex Contact Center service queue for each thirty-minute interval in the day. Some data is calculated in the interval only. Other data is calculated across intervals.

Webex CC Column	Description
queueId__s	The Webex Contact Center service queue's ID.
terminationType__s where value = "abandoned"	(Interval only) The number of calls that were abandoned during this interval.
handled__i	(Interval only) The number of calls that were handled during this interval.
talkDuration__l	(Across intervals) The length of time that agents spent talking to contacts that began in this interval. Format = Milliseconds.
holdDuration__l	(Across intervals) The length of time that contacts that began in this interval were on hold. Format = Milliseconds.
sid	The session ID.
wrapupDuration__i	(Across intervals) The length of time that agents spent in the wrap-up state after completing calls that began in this interval. Format = Milliseconds.
queueDuration__l	(Across intervals) The length of time that contacts spent in the service queue waiting to be connected to an agent. Format = Milliseconds.
isServiceLevel__i	The calls that met the service level during this interval.

## Agent Productivity Data Prorated by Service Queue

This API request imports historical data that is not associated with any of the service queues that an agent is assigned to for each thirty-minute interval in the day. Then, Webex WFO divides the data by the number of service queues that the agent is assigned to. All data is calculated in the interval only.

Webex CC Column	Description
agentId_s	The Webex Contact Center agent's ID.
Activity Span where currentState_s = "Idle"	The length of time that the agent spent in the Idle state. Format = Milliseconds.
Activity Span where currentState_s = "Available"	The length of time that the agent spent in the Available state. Format = Milliseconds.
Activity Span where currentState_s = "on-hold"	The length of time that the agent spent in the Call On Hold state. Format = Milliseconds.
Activity Span where currentState_s = "WrapUp"	The length of time that the agent spent in the Wrap Up state. Format = Milliseconds.
Activity Span where currentState_s != "Available"	The length of time that the agent spent in all states that were not Available. Format = Milliseconds.

### (Interval Only) Agent Productivity Data by Service Queue

This API request imports historical data associated with each of an agent's service queues for each thirty-minute interval in the day. All data is calculated within the thirty-minute interval only.

Webex CC Column	Description
agentId_s	The agent's ID.
queueId_s	The Webex Contact Center service queue's ID.
Activity Span where currentState_s = "Connected"	The length of time that the agent's phone was in the Connected state during this interval. Format = Milliseconds.
Activity Span where currentState_s = "Ringing"	The length of time that the agent's phone was in the Ringing state during this interval. Format = Milliseconds.

### (Across Intervals) Agent Productivity Data by Service Queue

This API request imports historical data associated with each of an agent's service queues for each thirty-minute interval in the day. All data is calculated across intervals.

Webex CC Column	Description
agentId_s	The agent's ID.
queueId_s	The Webex Contact Center service queue's ID.
handled_i	The number of calls that were handled.
wrapupDuration_i	The length of time that agents spent talking to contacts that began in this interval. Format = Milliseconds.
holdDuration_l	The length of time that contacts that began in this interval were on hold. Format = Milliseconds.
transferCount_i	The number of calls that the agent transferred.
talkDuration_l	The length of time that the agent spent talking to contacts that began in this interval. Format = Milliseconds.

## Real-Time Data

When Webex Contact Center is connected to WFM, an API updates Webex WFO every time an agent's state changes in the Webex Contact Center Agent Desktop. Webex WFO then maps the Webex Contact Center agent state to an equivalent agent state in WFM, allowing supervisors and managers to monitor agent schedule adherence in real time.

The following table summarizes how agent states in the Webex Contact Center Agent Desktop are mapped to agent states in WFM.

Webex CC	Webex WFO
Available	Ready Available
Connected or Talking	Talk
Wrap Up	After Call Work
Call On Hold	Hold
Idle	Not Ready
N/A	Logged Out (Derived from the isLogout_i column in the Webex Contact Center API response)

**IMPORTANT** There is a 255 character limit that applies to the full combination of all the “Not Ready” reason codes you are assigning to an activity when configuring adherence state mapping.