Webex WFO and Unified CCE Integration Guide

For Deployments with Classic WFM

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Contents

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.

Introduction

Webex WFO is a unified workforce optimization (WFO) software suite, which integrates with Cisco Contact Center platforms such as Cisco Unified Contact Center Enterprise (Unified CCE) to provide call recording, quality management, workforce management, voice-of-the-customer (VoC) analytics, and reporting. The details on the supported integration are listed below.

Data Integrations

This document describes the integration information for the following Cisco Contact Center platforms (also referred to as ACDs).

> **IMPORTANT**   For simplicity, all products are referred as Cisco Unified CCE for the remainder of this document.

- Cisco Webex CCE – Webex Contact Center Enterprise
- Cisco Unified CCE – Unified Contact Center Enterprise
- Cisco Unified CCE with ECE – Unified Contact Center Enterprise with enabled Enterprise Chat and Email
- Cisco PCCE – Package Contact Center Enterprise
- Cisco PCCE with ECE – Package Contact Center Enterprise with enabled Enterprise Chat and Email

Quality Management (QM)

Quality Management is the heart of the Workforce Optimization suite. It is the beginning of the data trail which leads to the voice of the customer. Take serving your customer to the next level with a focus on quality and engage your agents to drive retention.

Available Features

Feature	Available	Currently Unavailable
Webex WFO records audio	x	
Webex WFO imports audio recording		x
Webex WFO storage required for storing audio in the Cloud	X Amazon S3 storage	
Webex WFO screen recording supported	x	
Webex WFO initiates audio pause and resume (manual and automatic)	x	
Webex WFO ingests audio pause and resume		x
Webex WFO initiates screen recording pause and resume (manual and automatic)	x	
Webex WFO ingests screen recording pause and resume		x
Agent web recording controls and recording controls API	x	
Recordings encrypted	x	
Stereo recording	x	
Live voice monitoring	x	
Live screen monitoring	x via Smart Desktop client	
Sync supported	x	
Type of sync	Users, Teams, and Queues	

Feature	Available	Currently Unavailable
Contact metadata imported	x	
Supports multichannel integration	*, **	
CRM Integration	**	

*Import via API

** Open product integration review

Edge Components

Component	Required	Not Required
Data Server	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)

See the *Webex WFO Installation Guide* for more information on installing the Webex WFO Data Server and Smart Desktop.

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 suite 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.

WFM synchronizes Cisco agent, supervisor, team and skill group data for configuration purposes and historical data association. Cisco WFM synchronizes historical data for use with scheduling, forecasting, and reporting. Agent real-time ACD state data is synchronized for adherence and conformance purposes.

Available Features

Feature	Available	Currently Unavailable
Historical ACD capture (WFM historical data capture)	x	
Real-time data	x	
Forecasting (voice)	x	
Forecasting (multichannel/non-voice)	*	
Scheduling	x	
Sync supported	Users, Teams, and Service Queues	

*Access the Forecasting (multichannel/non-voice) feature by using the Webex WFO GIS service to import metadata from a .CSV file.

> **BEST PRACTICE** Always configure call type as "Yes". When call type is configured as "Yes", it is used to collect queue statistics. If "No" is selected as the call type, then precision queues and skill groups are used to collect queue statistics. Agent and agent queue data is always based on precision queues and skill groups. For further information, see Integration Details - WFM Data.

Cisco Analytics

Cisco Analytics features a repository of ready-made advanced analytics applications to help you create a big impact without the learning curve. Unlock the goldmine of intelligence buried in your contact center and transform every customer and agent contact into actionable insights.

Available Features

Feature	Available	Currently Unavailable
Speech Analytics (Phonetics)	x	
	Available for on-premises deployments only	
Speech Analytics (Speech-to-Text)	x	
Desktop Analytics	x	
Text Analytics	x	
Dashboards with drill-down	x	
Predictive Evaluation Score	x	
Predictive NPS	x	
Sentiment Analysis	x	
Agent Smart Benchmarking	x	
Advanced Speech Search	x	

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	

Cisco Hosted Collaboration Solution (HCS)

The Webex WFO platform integrates with a Cisco Hosted Collaboration Solution (HCS) for Unified CCE in the same way that it integrates with a single Cisco Unified CCE solution. Webex WFO can connect to individual instances of Cisco HCS Unified CCE to create a multitenant solution. Each connection is specific to the intended customer, and segmented from other tenants. The Webex WFO data server can connect to multiple instances of Cisco Unified CCE to sync agent, supervisor, and team information independently by customer.

Cisco Hosted Collaboration Solution (HCS)

Contact Center Applications UCCE/UCCX

- UCCE/UCCX — Agent/Supervisor/Team
- UCCE — Real-time API
- UCCE — Historical Data Sync
- TCD/CCD (HDS)

CUBE
- SIPREC — Audio Recording
  - Signaling (SIPREC)
  - Voice Capture

Unified CM (CUCM)
- CDR Data
- BIB Network Audio Recording
  - Voice Capture

JTAPI
- Call Recording Events
  - Signaling (CTI)

Multichannel
- Multichannel Contacts — Chat, Email, Text, Social Media

Post-Call Survey

CUIC

Center connectors:
- Organizational Multitenant Sync
- Agent Real-time Adherence
- Agent and Service Data
- Reconciliation
- Multichannel API
- Post-Cal Survey

Calabrio ONE Cloud

Grid Computing Platform

Provisioning
- Platform Users, Teams, Groups

Workforce Management
- WFM Real-time Adherence
- WFM Historical Capture Intervals (15/30)
- WFM Historical Capture Initial Bulk (6 Mo.+)

Compliance Reecording and Quality Management

Analytics

Calabrio Advanced Reporting

Capture Storage
- Calabrio ONE AWS Storage (S3)

Customer Domain
- Cisco IP Phone/ Softphone (SIP/SCCP)
- Agent Workstation
  - Finesse
- Desktop Audio Recording
- Screen Recording
- Desktop Analytics & Triggers
- Calabrio Smart Desktop
  - DCC API

Configure Cisco Unified Contact Center Enterprise

Follow the steps detailed below to set up and configure Cisco Unified CCE.

> **NOTE**   See Set up Webex WFO WFM for set up information specific to WFM.

- Step 1: Add Cisco Unified CCE as an ACD

- Step 2: Configure a Data Server

- Step 3: Customize Your Configuration

Step 1: Add Cisco Unified CCE as an ACD

Prerequisites

- The Administer ACD permission

- A System Administrator license

- A Data Server installed and configured. See "Installing Webex WFO Data Server" in the *Webex WFO Installation Guide for Cloud* or *On-Premises Deployments* for more information.

- Customers need to provide database credentials for a user with permissions to query the database tables.

Page Location

Webex WFO > Application Management > Global > System Configuration > ACD Configuration

Procedures

Add Cisco Unified CCE as an ACD

1. Click **Add**.

2. Select **Cisco Unified CC Enterprise** from the **Select ACD** drop-down list. Cisco Unified CCE appears as **Cisco Unified CC Enterprise** in the ACD drop-down list.

3. Enter a unique name for the Cisco Unified CCE ACD in the **Name** field.

4. Click **OK**.

5. Configure the fields. See Field Descriptions below for more on the available fields.

6. Click **Test Connection** to ensure your entries are correct and Webex WFO is connected to the ACD.

7. Click **Save**.

Field Descriptions

The following fields appear when you select Cisco Unified CC Enterprise as your ACD.

Section	Description
Historical Reporting Interval	The historical data reporting interval that is configured in your Unified CCE system.
	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.
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.
	IMPORTANT If you only select the **Service Name** in the **Prefix Type** drop-down list, no teams or agents sync over. Any teams or agents already synced over are deactivated. If you change a filter that uses the **Service Name** in the **Prefix**

Section	Description
	Type drop-down list, all previously synced service queues stay active, even if they are not captured by the changed filter.
	NOTE If you only select the **Team Name** in the **Prefix Type** drop-down list, related service queues still sync over. If you change a filter that uses the **Team Name** in the **Prefix Type** drop-down list, any agents or teams no longer captured by the filter are deactivated.
IP Configuration	This is used to get historical data. HDS Primary IP Address or Hostname—The IP address or host name of the primary historical database server (HDS). HDS Secondary IP Address or Hostname— (Optional) The IP address or host name of the secondary historical database server. AWDB Primary IP Address or Hostname—The IP address or host name of the primary Admin Workstation database server (AWDB). AWDB Secondary IP Address or Hostname— (Optional) The IP address or host name of the secondary Admin Workstation database server. Unified CC Instance—The instance name of the Microsoft SQL Server for the Unified CCE database.
Authentication	This is used to get historical data. Select the authentication method the database login uses: NT—If you select NT Authentication, the following fields appear: - Username - Password - Domain - Peripheral ID—The ICM peripheral ID for the system.

Section	Description
	SQL—If you select SQL Authentication, the following fields appear: • SQL User—The login name of the Webex WFO SQL user. • Password—The password of the Webex WFO SQL user. • Peripheral ID—The ICM peripheral ID for the system.
CTI Servers	This is used to get agent real-time data. Primary CTI IP Address or Hostname—The IP address or host name of the primary CTI server associated with the system. Primary CTI Port—The port of the primary CTI server associated with the system. Secondary CTI IP Address or Hostname—The IP address or host name of the secondary CTI server associated with the system. Secondary CTI Port—The port of the secondary CTI server associated 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	(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. 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

Section	Description
	subdirectories are created:

- 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:

    - 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/

    - CdrFailures

    - uploaddir—The Data Server places reconciled CDR and Unified CCE data in this folder until the data is uploaded.

    - UploadFailures

> **NOTE**   This field is used for Quality Management purposes only.

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 attemps to synch the user, team, and service queue to Webex WFO.
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.
	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

Section	Description
	ensures that your statistics are correct and that the data for very long calls is in the correct interval.
	Recapture Time—Select the time to recapture the previous day's data from the ACD. The default is 03:00.

Step 2: Configure a Data Server

Prerequisites

- A Cisco Unified Contact Center Enterprise (Cisco Unified CCE) ACD configured.

- Webex WFO Data Server downloaded and installed.

Page Location

Application Management > Global > System Configuration > Data Server Configuration

Procedures

Configure the Data Server

1. Select the Data Server you want to use from the **Select Data Server Configuration** drop-down list.

2. Configure the fields as described.

   Display Name — Enter the display name of the Data Server you selected.

   Regional Data Server ACD Sync Settings — Select the **Enable Sync** check box and then move the Cisco Unified CCE ACD you configured from **Available** to **Assigned**.

3. Configure the remaining fields as desired. See the "Configure the Data Server" topic in the *Webex WFO User Guide* for more on the available fields.

4. Click **Test Connection** to ensure your entries are correct and the Data Server is properly configured.

5. Click **Save**.

Step 3: Customize Your Configuration

After completing steps one and two, data has successfully synced from your Cisco Unified CCE ACD to Webex WFO. You can do much more to use Webex WFO to its fullest potential. The topics listed below can be found in their entirety in the *Webex WFO User Guide*. You can also find the topics listed below by navigating to the page locations in Webex WFO (for example, Location: Application Management > QM > QM configuration > Metadata Manager). Then click the **Help** button in the top right corner of the page.

Quality Management

- **Manage Associations with ACD Devices** — (Location: Application Management > QM > QM Configuration > Device Associations) After you sync devices through the Data Server, you can use the **Device Associations** page to associate devices from your ACD with Webex WFO users, recording groups, and recording types.

- **Configure Telephony Groups** — (Location: Application Management > QM > QM Configuration > Telephony Groups) Telephony Groups provide the structure used to create the recording infrastructure. Telephony groups consist of at least one signaling source, one signaling group, one signaling server, one recording group, and your contact center devices. Learn more about telephony groups and their configuration procedures on this page.

  - **Configure Cisco Unified Communication Manager (Unified CM)** — You can configure SOAP Administrative XML Layer (AXL) users and JTAPI users. The CTI service makes use of the users to log in to Unified CM. A CTI Signaling service from your Webex WFO Signaling server is used for edge server recording environments to track start and stop events and capture CTI metadata for call recordings. A Unified CM cluster is composed of a set of Unified CM servers that share the same database and resources and have one or more CTI Managers.

Workforce Management

- **Manage Service Queues** — (Location: Application Management > WFM > Service Queues > Service Queues) Service queues are imported from the ACD via the Sync service. Service queue sources and IDs and the Voice service queue type are read-only and cannot be changed in Webex WFO. IDs can only be edited in the ACD, but other fields can be edited. A service queue is a group of agents to which contacts are routed. Service queues are associated with skills using Skill Mappings and Multiskill Groups. To schedule an agent to support a service queue, the agent must first be assigned to the skill mapping or multiskill group associated with that service queue. Otherwise the agent cannot be scheduled.

- **Manage Skill Mappings** — (Location: Application Management > WFM > Service Queues > Skill Mappings) This topic details the next step after managing service queues. Skill mappings provide links between service queues and agents. Skill mappings for each service queue are automatically created on a one-to-one basis when this information is synced from your ACD. This page in Webex WFO enables you to create, edit, and delete skill mappings.

- **Manage Multiskill Groups** — (Location: Application Management > WFM > Service Queues > Multiskill Groups) Multiskill groups are used to schedule agents to support multiple service queues during the same period of time. A multiskill group is a collection of service queues.

- **Work with Historical Data** — (Location: Application Management > WFM > Historical Data) WFM requires historical data to generate distributions, forecasts, and schedules and to calculate statistics. Webex WFO offers multiple ways to capture historical data including the option to import it from your ACD.

Analytics

- **Text Search** — (Location: Interactions > Text Search filter) Use the Text Search filter to mine data in your transcribed calls for phrases and specific terms in calls using search queries and result filters .

- **Predictive Evaluation Scores** — (Location: Application Management > Analytics > Task Manager) Allows you to use a variety of factors to determine a likely evaluation score for a contact.

- **Predictive Net Promoter Scores** — (Location: Application Management > Analytics > Task Manager) Creates a model using customer contacts, agent performance, and other factors to determine a likely Net Promoter Score for a contact .

Users

- **Manage Users** — (Location: Application Management > Global > User Configuration) See this section to learn more about editing and configuring users and teams after they have been synced from your ACD. When users are synced from the ACD, Webex WFO creates a new user and associates an ACD user profile with that user. Users must have one or more roles assigned to them and each role can have various permissions enabled. A role is a collection of permissions, and a permission controls which applications and actions are available to a user who has been assigned a role.

Understanding Synchronization

ACD Synchronization

The Data Server automatically extracts the following information from the ACD and loads it into Webex WFO as the following:

- Agents

- Teams

- Supervisors

- Relationships between agents and teams

- Service queues

- Devices (if Device Sync is enabled in the Data Server Configuration page). See "Manage Associations with ACD Devices" in the *Webex WFO User Guide* for more.

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

> **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.

Agent and supervisor Data Synchronization

When someone changes user data in the ACD, the Data Server 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	New agent is added. Specifically, the Data Server: - Applies the ACD agent first and last name to the Webex WFO agent first and last name. - Applies the agent/supervisor unique primary key (Agent.SkillTargetID) to the Webex WFO ACD ID. - Sets the Webex WFO start dates for the company and department to the current date. - Assigns the corresponding team to the agent as the agent's team.

Change in the ACD	Resulting Change in Webex WFO
	NOTE If the ACD does not have a team assigned to the agent, you can manually assign a team to the agent in Webex WFO.
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.

Team Data Synchronization

When team data is changed in the ACD, the Data Server 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.

NOTE Teams that are synced from the ACD cannot be deactivated in Webex WFO.

Service Queue Data Synchronization

When service queue data is changed in the ACD, the Data Server 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 Data Server does the following: ■ Applies the ACD service queue name to the Webex WFO service queue description ■ Applies the skill group unique primary key (Skill_Group.SkillTargetID) to the Webex WFO service queue ID ■ Gives the new service queue a service queue type of Interactive/Voice New skill mapping is added. Specifically, the Data Server does the following: ■ Applies the ACD service queue name to the Webex WFO skill mapping name **NOTE** The Webex WFO skill mapping name will have the peripheral ID for that ACD as the prefix followed by a period followed by the skill group name. Creates a one-to-one mapping between the ACD skill mapping and the Webex WFO skill mapping.
Service queue name is changed	■ Applies the new ACD service queue name to the Webex WFO service queue description (name) ■ Applies the new ACD service queue name to the Webex WFO skill mapping name
Service queue is deleted	No change.