



Customer Guide to Cisco UCCX Integrations

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Recording

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Introduction

Audience

This document is written for customers and prospective customers interested in using inContact Call Recording in a Cisco UCCX telephony environment. Readers who will perform procedures in this guide should have a basic level of familiarity with IP telephony, general networking, the Windows operating system, Cisco UCCX, and inContact WFO.

Goals

The goal of this document is to provide knowledge, reference, and procedural information necessary to understand a proposed Cisco/inContact WFO integration using Cisco UCCX, and to configure the Cisco equipment to support the integration

This document is NOT intended as a specific system or network design document. If further clarification is needed, consult with your telephony vendor(s).

Assumptions

This document assumes the reader has access to an inContact WFO Sales Engineer, Project Manager, or other resource to assist in applying this information to the reader's environment.

Need-to-Knows



To facilitate ease of use, this document takes advantage of PDF bookmarks. By opening the bookmark pane, readers can easily refer to the portion(s) of the guide that are relevant to their needs. For example, the inContact WFO application administrator can click on the **Customer Administration Tasks** bookmark to jump directly to that section.

To expand and collapse the bookmark pane, click on the bookmark icon on the left side of the document window.

For information and procedures related to inContact WFO configuration, talk to your inContact WFO installation team.

Cisco UCCX can also be used in various combinations with Cisco JTAPI-BiB, Cisco TAPI-BiB, or passive VoIP recording. In these scenarios, refer to the *inContact WFO Customer Guide to Cisco JTAPI-BiB Integrations*, the *inContact WFO Customer Guide to Cisco TAPI-BiB Integrations*, or the *inContact WFO Customer Guide to Passive VoIP Recording*, as appropriate.

Terminology

To ensure a common frame of reference, this guide uses the following terms:

- **CUCM:** Cisco Unified Communications Manager. CUCM is a software-based call-processing system that includes gateways, routers, phones, voicemail boxes, and a variety of other VoIP components. Sometimes referred to as CallManager.
- **UCCX:** Unified Contact Center Express. UCCX is a single-server customer interaction management solution for up to 400 agents.
- **JTAPI:** Java Telephony Application Programming Interface. Cisco JTAPI allows custom applications to monitor and interact with the CUCM and Cisco IP phones.
- **TAPI:** Telephony Application Programming Interface. Like JTAPI, Cisco TAPI allows custom applications to monitor and interact with the CUCM and Cisco IP phones.
- **BiB:** Built-in Bridge. Capability of some Cisco IP phone models to fork the media stream and deliver audio from both sides of a phone call to an alternate destination (for example, inContact WFO).
- **SCCP:** Skinny Call Control Protocol. SCCP is a signaling protocol used by Cisco phones. This protocol can be used to provide metadata and limited call control in passive VoIP recording.

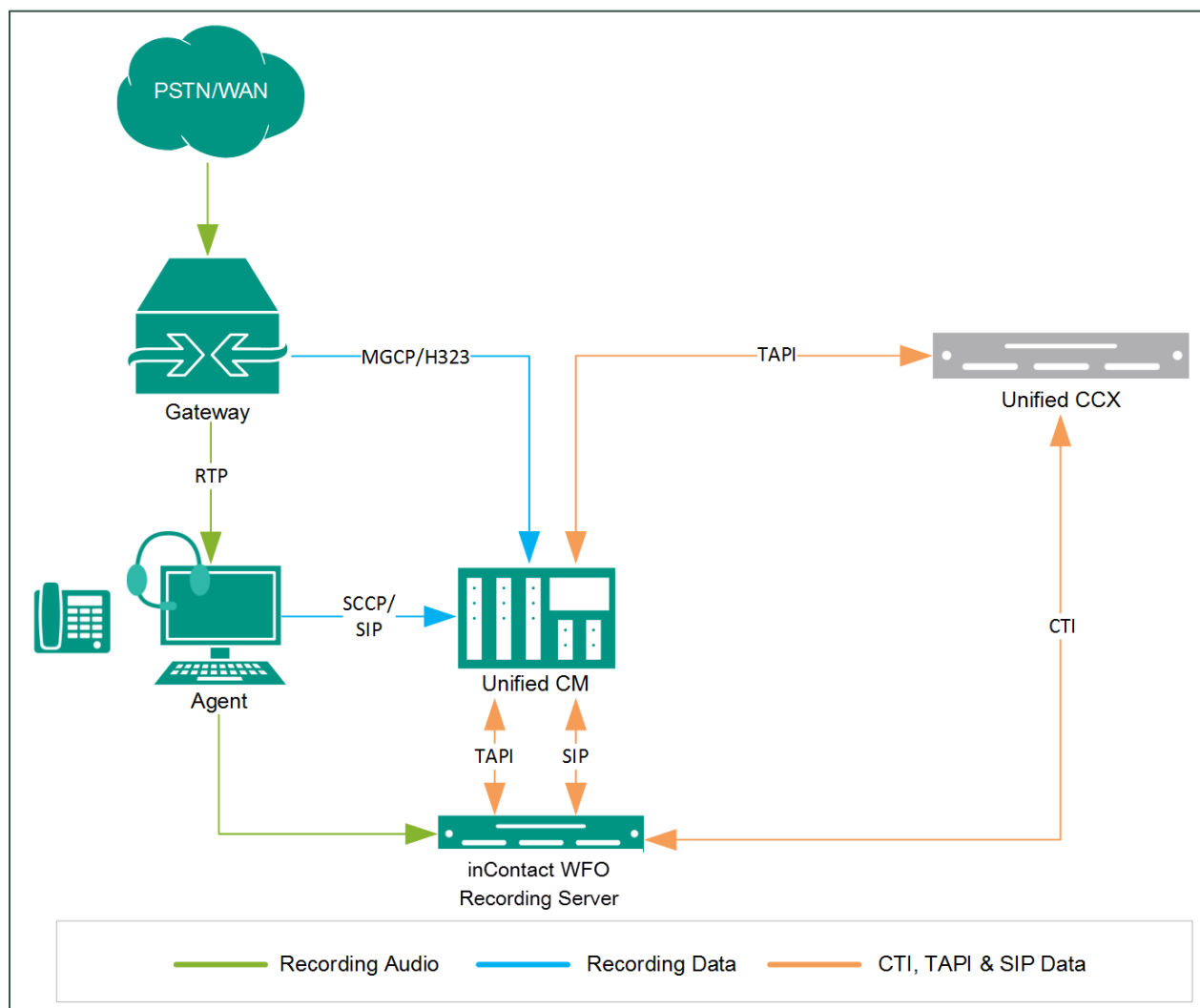
Customer Responsibilities

You are responsible for supplying the physical and/or IP connection(s) to your telephone system, as well as any licensing required by Cisco. You may also be responsible for configuring Cisco system components to support the recording integration. See your specific integration in the [Customer Integration Tasks](#) section for additional information.

Cisco UCCX Integration Overview

This integration can work with passive VoIP, JTAPI-BiB, or TAPI-BiB as an audio source (refer to the *inContact WFO Customer Guide to Cisco JTAPI-BiB Integrations*, the *inContact WFO Customer Guide to Cisco TAPI-BiB Integrations*, or the *inContact WFO Customer Guide to Passive VoIP Recording*, as appropriate). Call control and metadata are provided by the Resource Manager-Contact Manager (RmCm) subsystem in the UCCX.

With the optional Agent Sync module, this integration can automatically synchronize agent changes in UCCX with the inContact WFO database (see [Appendix: Agent Sync Module](#) for details). The UCCX-CTI OS integration does not stand alone but is meant to work with an existing CTI Core.



General architectural example of an integration using Cisco TAPI-BiB and Cisco UCCX

Component	Function
Cisco Voice Gateway	Directs customer and agent audio streams.
Cisco Unified Communication Manager (UCM)	Manages call setup messages to the agent phone and SIP INVITE messages to inContact WFO to record the call.
UCCX	All UCCX CTI messages are received and sent through the CTI server module of the RmCm (Resource Manager-Contact Manager) subsystem, which is used for monitoring agent phones, controlling agent states, and routing and queuing calls. The RmCm subsystem requires a UCM user account to register with the CTI Manager so that it can observe an agent's device when the agent logs in.
Third-Generation Phones	Each third generation phone being recorded uses built-in bridge to forward audio streams for each side of the call to inContact WFO.
inContact WFO Server	Receives call control events, business data, and audio. Provides a CTI interface to the inContact WFO recording server. Creates call records and manages recording storage. Supports automatic CTI failover in UCCX High Availability configurations.

Cisco Requirements

In addition to the requirements listed here, you will also need to review the requirements for any audio source integrations that apply (for example, TAPI-BiB or passive VoIP).

Hardware

Review the Cisco UCCX installation and configuration guide, the administrator guide, and the hardware and system software specifications. These documents address server, agent computer, and telephone hardware requirements and restrictions that Cisco recommends.

Software

- Cisco UCCX v10.0 – 10.6

Licensing

No additional Cisco licenses are needed for integrating UCCX with inContact WFO.

inContact WFO Requirements

In addition to the requirements listed here, you will also need to review the requirements for any audio source integrations that apply (for example, TAPI-BiB or passive VoIP).

Hardware

inContact WFO hardware requirements vary depending on system configurations. Appropriate hardware is identified during the system implementation process.

Software

- inContact WFO, v5.6 or higher

Licensing

- One (1) Voice seat license per named agent **or**
- One (1) Voice concurrent session license for each simultaneous call to be recorded.
- Additional licensing may be required if the system includes optional features (for example, inContact Screen Recording).

Customer Configuration Overview

The following table provides a high-level overview of the customer configuration steps in Cisco UCCX integrations.

Customer Configuration Steps for Cisco UCCX Integrations	
1	Complete all necessary physical and IP connections between the recording server(s) and the LAN.
2	Obtain any necessary Cisco software and licensing.
3	Complete all procedures to configure the JTAPI-BiB, TAPI-BiB, or passive VoIP integration for audio.
4	Create a user account with permission to read the UCCX database. and provide the username and password to the inContact WFO installation team.
5	Provide the following information to the inContact WFO deployment team: <ul style="list-style-type: none"> • Username for the UCCX database account • Password for the UCCX database account • IP address for the primary RmCm server (and any secondary servers) • Communication port used by the primary RmCm (and any secondary servers). See Confirm Resource Manager-Contact Manager (RmCm) Port.

Customer Integration Tasks

Refer to the appropriate guide for customer tasks related to your audio source integration: the *inContact WFO Customer Guide to Cisco TAPI-BiB Integrations*, the *inContact WFO Customer Guide to Cisco JTAPI-BiB Integrations*, or the *inContact WFO Customer Guide to Passive VoIP Recording*.

See your Cisco documentation for instructions on creating a user account that has permissions to read the UCCX database.

Confirm Resource Manager-Contact Manager (RmCm) Port

You must provide the inContact WFO deployment team with the port used by the UCCX RmCM subsystem. To confirm this port number:

1. Log into the UCCX Administration site with an appropriately permissioned account.
2. Click **System** and select **System Parameters**.
3. Under **System Ports Parameters**, find the **RmCm TCP Port** value.

Customer Administration Tasks

During the regular operation of your inContact WFO system, there are no specific tasks your administrator needs to perform in regard to the UCCX integration. For tasks specific to your audio source integration, refer to the appropriate guide: the *inContact WFO Customer Guide to Cisco TAPI-BiB Integrations*, the *inContact WFO Customer Guide to Cisco JTAPI-BiB Integrations*, or the *inContact WFO Customer Guide to Passive VoIP Recording*.

Appendix: Agent Sync Module

The optional Agent Sync module automatically synchronizes agent changes in UCCX with the inContact WFO database. Users are matched by username and are synchronized before teams/groups. Users and groups originally created in inContact WFO (for example, SourceAgentID=Null) will not be changed during synchronization unless a matching username or group exists in UCCX, in which case the module will match them and update the SourceAgentID.

If the agent or group exists in inContact WFO but does not match the UCCX equivalent (for example, SourceAgentID is not null and does not match), the agent/group is disabled and will not appear in inContact WFO. If a user or group exists in UCCX but not inContact WFO, it will be created in inContact WFO during synchronization.

i Resources that appear as "inactive" in the UCCX Administration site (under Subsystems > RmCm > Resources) will still be "active" in the UCCX database and need to be deleted altogether for the synchronization to update their status correctly in inContact WFO.

The following information can be synchronized:

- UCCX resources with inContact WFO users
- UCCX teams with inContact WFO groups

This module does NOT synchronize:

- Password: This value is not in UCCX.
- Server node: This value is Uptivity WFO-specific.
- Supervisor and Team/Group attachments
- Administrator roles/permissions
- Users not configured as Agents

UCCX does not synchronize user info beyond an agent. If a user in the UCM is not registered as an agent, they are not listed in the UCCX database, and therefore will not be synchronized.

This table shows the mapping between the UCCX Resource database table and inContact WFO database tables.

UCCX Resource Table	inContact WFO User Agent
resourceLoginID	Username
resourceID	SourceAgentID
resourceFirstName	First Name
resourceLastName	Last Name
resourceName	Last Name (if no resourceLastName is specified)
resourceType (1-Agent, 2-Supervisor, 3-Administrator)	Agent (Yes or No)
extension	Extension
UCCX Team Table	inContact WFO Group
teamName	Group Name
Active (f-Inactive/t-Active)	Delete/Not delete Group
UCCX Resource/Team Table	inContact WFO Group
assignedTeamID/teamID	SourceGroupID

Document Revision History

Revision	Change Description	Effective Date
0	Initial version for this release	2016-04-08