inContact

Customer Guide to Cisco UCCE 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 UCCE 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 UCCE, 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 UCCE, 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 UCCE can also be used in various combinations with Cisco JTAPI-BiB, Cisco TAPI-BiB, or Cisco MediaSense. 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 Cisco MediaSense Integrations*, 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.
- **UCCE:** Unified Contact Center Enterprise. UCCE delivers intelligent contact routing, call treatment, network-to-desktop CTI, and multichannel contact management over an IP infrastructure. It combines multichannel ACD functionality with IP telephony in a single solution.
- **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).
- **MediaSense:** Cisco's open-standards platform that allows for recording on the network level rather than the device level.

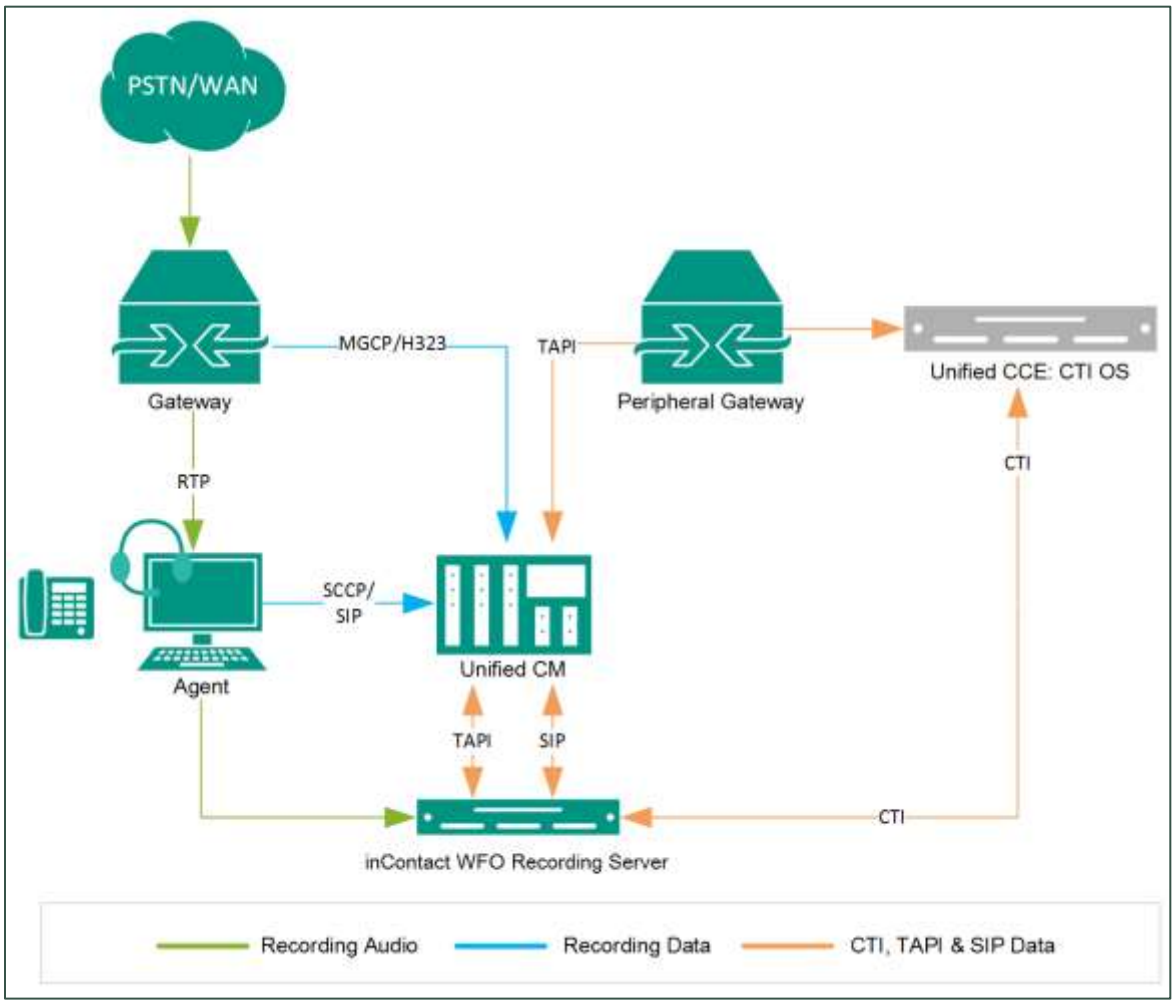
Customer Responsibilities

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 UCCE Integration Overview

This integration can work with either JTAPI-BiB or TAPI-BiB as an audio source (refer to the *inContact WFO Customer Guide to Cisco JTAPI-BiB Integrations* or the *inContact WFO Customer Guide to Cisco TAPI-BiB Integrations*, as appropriate). Call control and metadata are provided by the Computer Telephony Integration Object Server (CTI OS) in the UCCE.

With the optional Agent Sync module, this integration can automatically synchronize agent changes in UCCE with the inContact WFO database (see Appendix: Agent Sync Module for details). The UCCE-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 UCCE

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.
CTI Object Server (CTI OS)	Manages CTI data such as call start, call stop, and call identifying data.
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.

Known Limitations and Considerations

- Authentication/password protection cannot be enabled on the CTI OS server(s).
- If the customer desires redundancy, primary and secondary CTI OS servers must be deployed.
- The customer must install the CTI OS agent on the agents' equipment.

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 MediaSense).

Hardware

This integration uses the CTI OS server and the CTI OS Silent Monitor feature. Review the Cisco UCCE and CTI OS installation and configuration guide, the system manager guide, and the hardware and system software specifications. These documents address server, agent computer, and telephone hardware requirements and restrictions. Cisco recommends the use of multiple CTI OS Servers for redundancy.

Software

- Cisco UCCE/CTI OS v10.0(2) – 11.0

Licensing

The CTI OS server license allows one "Monitor Mode" connection per server. The inContact WFO recorder will use this connection. If more than one recorder is deployed, each one will need a "Monitor Mode" connection.

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 MediaSense).

Hardware

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

Software

- inContact WFO, 16.2 or later

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 UCCE integrations.

Customer Configuration Steps for Cisco UCCE 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 or TAPI-BiB integration for audio.
4	Create a user account with permission to read the UCCE database and provide the username and password to the inContact WFO installation team.

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* or the *inContact WFO Customer Guide to Cisco JTAPI-BiB Integrations*.

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

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 UCCE integration. For tasks specific to your audio source integration, refer to the appropriate guide: the *inContact WFO Customer Guide to Cisco TAPI-BiB Integrations* or the *inContact WFO Customer Guide to Cisco JTAPI-BiB Integrations*.

Appendix: Agent Sync Module

The optional Agent Sync module automatically synchronizes agent changes in UCCE 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 UCCE, in which case it will match them up and update the SourceAgentID.

If the agent or group exists in inContact WFO but does not match the UCCE 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 UCCE but not inContact WFO, it will be created in inContact WFO during synchronization.

The following information can be synchronized:

- UCCE/ICM persons/agents with inContact WFO users
- UCCE/ICM teams with inContact WFO groups

This module does NOT synchronize:

- **Password:** This value is encrypted in UCCE/ICM.
- **Server node:** This value is inContact WFO-specific.
- **Supervisor and Role/Group attachments:** inContact WFO's role/group structure and UICM's team/supervisor structure do not provide adequate information to match and track changes. For example, UICM allows for only two team supervisors.

This table shows the mapping between the UICM Person database table and inContact WFO database tables.

UICM Person Table	**inContact WFO User Agent**
LoginName	Username
PersonID	SourceAgentID – New attribute.
FirstName	First Name
LastName	Last Name
LoginEnabled (Yes or No)	Account Locked (Yes or No)
(n/a)	Agent (Yes if an agent record has the matching PersonID)
Deleted (Yes or No)	Account Locked, Agent
UICM Agent Table	**inContact WFO User Agent**
Deleted (Yes or No)	If Yes, then agent is inactive/Agent option is clear.
PeripheralNumber	Phone ID
UICM Agent Team Table	**inContact WFO Group**
EnterpriseName Note: Agent teams are used only for administrative and monitoring purposes.	Group Name
AgentTeamID	SourceGroupID – new attribute.
UICM Agent Team Member Table	**inContact WFO Group Associated Agents**
SkillTargetID	inContact WFO Agent

Document Revision History

Revision	Change Description	Effective Date
0	Initial version for this release	2016-04-05
1	Updated supported versions of UCCE to include 11.0	2016-05-28