



# Customer Guide to Cisco UCCE/PCCE Integrations

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- **Version** – This guide should be used with NICE Uptivity (formerly Uptivity Premise) v5.6 or later.
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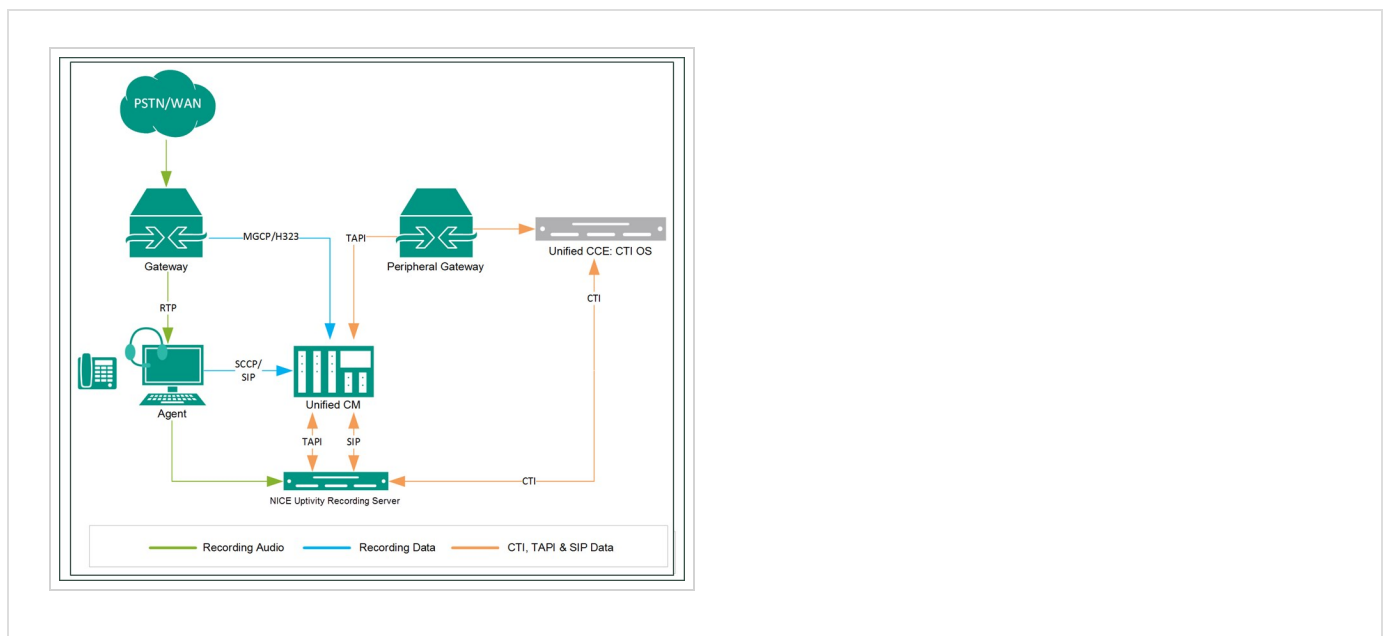
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# Cisco UCCE/PCCE

**Version Support:** Cisco UCCE/PCCE versions 10.0-11.5 are supported.

This integration can work with TAPI-BiB as an audio source. Call control and metadata are provided by Computer Telephony Integration Server (CTI Server) for customers using UCCE/PCCE version 11.5 and later. Customers with UCCE 11.5 and earlier will interface with Computer Telephony Integration Object Server (CTI OS).

CTI Server provides a socket level interface for integrating CTI Applications to Cisco Unified ICM and UCCE. CTI Server makes call data available to applications in realtime by responding to requests from clients and originating unsolicited messages. All messages share a common message header and use the same set of data types. With the optional Agent Sync module, this integration can also automatically synchronize agent changes in UCCE with the Uptivity database. The UCCE-CTI OS integration does not stand alone but is meant to work with an existing CTI Core.



## Need-to-Knows

Cisco UCCE/PCCE can also be used in various combinations with Cisco TAPI-BiB or Cisco MediaSense. In these scenarios, refer to the [Customer Guide to Cisco TAPI-BiB Integrations](#), or the [Customer Guide to Cisco MediaSense Integrations](#), as appropriate.

COMPONENT	FUNCTION
Cisco Voice Gateway	Directs customer and agent audio streams.

COMPONENT	FUNCTION
<b>Cisco Unified Communication Manager (UCM)</b>	Manages call setup messages to the agent phone and SIP INVITE messages to Uptivity to record the call.
<b>CTI Object Server (CTI OS)</b>	Manages CTI data such as call start, call stop, and call identifying data.
<b>Third-Generation Phones</b>	Each third generation phone being recorded uses built-in bridge to forward audio streams for each side of the call to Uptivity.
<b>NICE Uptivity Recording Server</b>	Receives call control events, business data, and audio. Provides a CTI interface to the Uptivity recording server. Creates call records and manages recording storage. May also host the Web Portal for playback and system administration.
<b>CTI Server</b>	The Computer Telephony Integration (CTI) Server provides a socket-level interface for integrating CTI Applications to Cisco Unified ICM and Contact Center Enterprise/Hosted.

## TERMINOLOGY

- **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.
- **PCCE**—Packaged Contact Center Enterprise. PCCE is similar to UCCE but with a smaller hardware footprint. It is delivered in one predesigned package.
- **UCCX**—Unified Contact Center Express. UCCX is a single-server customer interaction management solution for up to 400 agents.
- **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, Uptivity).
- **MediaSense**—Cisco's open-standards platform that allows for recording on the network level rather than the device level

## 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.

## Customer Responsibilities

You are responsible for supplying the physical connection(s), IP connection(s), or both to your telephone system, as well as for obtaining and loading 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 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

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This integration uses the CTI OS server and the CTI OS Silent Monitor feature. Review the Cisco UCCE/PCCE 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

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- Cisco UCCE/PCCE/CTI OS

### LICENSING

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

## NICE Uptivity 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

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Uptivity hardware requirements vary depending on system configurations. Appropriate hardware is identified during the system implementation process. For more information, search online help for keyword site requirements.

### SOFTWARE

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- NICE Uptivity

### LICENSING

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- 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/PCCE 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 TAPI-BiB integration for audio.
4. Create a user account with permission to read the UCCE/PCCE database and provide the username and password to the Uptivity installation team.

# Customer Integration Tasks

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Refer to the [Customer Guide to Cisco TAPI-BiB Integrations](#) guide for customer tasks related to your audio source integration.

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



# Customer Administration Tasks

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There are no regular, ongoing administrative tasks related to this integration. For tasks specific to your audio source integration, refer to the [Customer Guide to Cisco TAPI-BiB Integrations](#).

# Appendix: Agent Sync Module

The optional Agent Sync module automatically synchronizes agent changes in UCCE with the NICE Uptivity database. Users are matched by username and are synchronized before teams/groups. Users and groups originally created in Uptivity (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 NICE Uptivity 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 Uptivity. If a user or group exists in UCCE but not Uptivity, it will be created in Uptivity during synchronization.

The following information can be synchronized:

- UCCE/ICM persons/agents with Uptivity users
- UCCE/ICM teams with Uptivity 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** – Role/group structure in Uptivity and team/supervisor structure in UICM do not provide adequate information to match and track changes. For example, UICM allows for only two team supervisors.

These tables show the mapping between the UICM Person database table and NICE Uptivity database tables.

UICM PERSON TABLE	NICE UPTIVITY USER
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	NICE UPTIVITY USER
<b>Deleted (Yes or No)</b>	If <b>Yes</b> , then agent is inactive/Agent option is clear.
<b>PeripheralNumber</b>	Phone ID

UICM AGENT TEAM TABLE	NICE UPTIVITY USER
<b>EnterpriseName</b> <b>Note: Agent teams are used only for administrative and monitoring purposes.</b>	Group Name
<b>AgentTeamID</b>	SourceGroupID – new attribute.

UICM AGENT TEAM MEMBER TABLE	NICE UPTIVITY USER
<b>SkillTargetID</b>	NICE Uptivity Agent