NICE | UPTIVITY
Agile WFO for SMB

Customer Guide to Cisco MediaSense Integrations

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Version:	This guide should be used with NICE Uptivity (formerly Premise inContact WFO) v5.6 or later.
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Introduction

Audience

This document is written for customers and prospective customers interested in using NICE Uptivity in a Cisco MediaSense 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 MediaSense, and NICE Uptivity.

Goals

The goal of this document is to provide knowledge, reference, and procedural information necessary to understand a proposed Cisco/ NICE Uptivity integration using MediaSense, 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 Uptivity 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 Uptivity 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 questions related to Uptivity configuration, consult the Uptivity installation team.

Introduction

Cisco MediaSense can also be used with Cisco TAPI-BiB, Cisco UCCX, or both. In this scenario, refer to the *Customer Guide to Cisco TAPI-BiB Integrations*. the *Customer Guide to Cisco UCCX Integrations*, or both, 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.

- **MediaSense —** Cisco's open-standards platform that allows for recording on the network level rather than the device level

- **CUBE —** Cisco Unified Border Element. CUBE is a session border controller that provides voice and video connectivity from the enterprise IP network to service provider SIP trunks. Sometimes used with MediaSense.

- **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.

- **UCCX —** Unified Contact Center Express. UCCX is a single-server customer interaction management solution for up to 400 agents.

- **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, NICE Uptivity).

Customer Responsibilities

You are responsible for supplying the physical connection(s), IP connection(s), or both to your telephone system and LAN, and for obtaining and loading any licensing required by Cisco. You are also responsible for configuring Cisco system components to support the recording integration. See the Customer Integration Tasks section for additional information.

Cisco MediaSense Integration Overview

In this integration, calls are recorded by the Cisco MediaSense platform. Audio files are downloaded from MediaSense to NICE Uptivity via an HTTP session after the files are complete. Uptivity combines these files with call metadata and (if applicable) a screen capture file to create a standard CCA file which is then available for playback, quality monitoring, and other purposes. Uptivity is completely dependent on MediaSense for the audio and metadata.

> ⓘ NICE Uptivity receives a confirmation if the entire audio file is downloaded successfully; otherwise, it attempts to download the file again.
>
> Uptivity tracks calls based on last-call-retrieval time to identify periods when calls were not downloaded due to **CTI Core** service failure or network failure. If it identifies such a period, it tries three times to download calls for that period.
>
> Uptivity makes three attempts to download a call recording file regardless of the reason for the download failures.

Supported Configurations

Uptivity supports these configurations for integration with Cisco MediaSense:

- **Network-based media forking —** Calls are recorded by MediaSense on the network level, via a SIP trunk from either the Cisco UCM or Cisco CUBE. MediaSense sends Uptivity a call start event, call update events (if they occur), and a call end event. Uptivity uses the first event to determine whether live monitoring or screen capture should occur, and uses the call end event to determine whether it should request the audio file from MediaSense. In this configuration, Uptivity can also integrate with CUCM via TAPI-BiB and UCCX for additional call metadata. This would require you to complete the tasks specified for those integrations in addition to tasks in this guide.

- **Phone-based media forking —** Calls are forwarded to MediaSense using the built-in bridge capability of some Cisco phones, based on call events from the UCM, and MediaSense records the calls. The same call events are sent to Uptivity and the same decisions are made regarding screen capture, live monitoring, and whether to request the audio file as well as whether to collect CTI data from the Cisco UCM. In this configuration, Uptivity can also integrate with CUCM via TAPI-BiB and UCCE or UCCX for additional call metadata. This would require you to complete the tasks specified for those integrations in addition to tasks in this guide.

Cisco MediaSense Integration Overview

The following diagram shows both options, although a typical system would use one or the other.
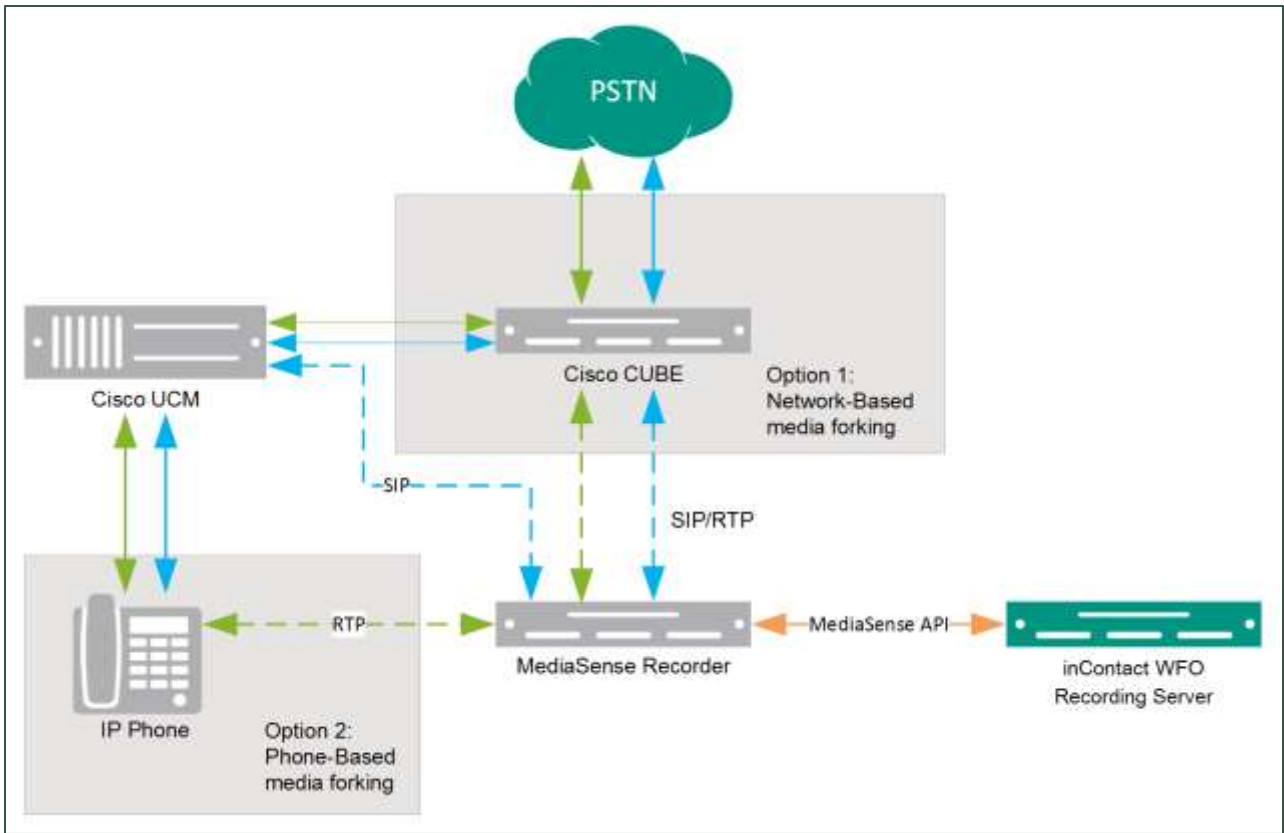
General architectural example of the Cisco MediaSense integration

Component	Function
Cisco MediaSense Recorder	Records calls and sends call start, update, and end events to Uptivity. Receives requests from Uptivity to copy call records, enable live monitoring, and enable screen capture. Deletes call records after they are successfully copied. Integration is done via the MediaSense API.
Cisco CUBE	Session border controller that provides voice and video connectivity from the enterprise IP network to service provider SIP trunks. May be used with network-based media forking as the audio source.

Cisco UCM	Optional in this integration. May be used with network-based media forking as the audio source. May be used with either network-based or phone-based media forking to provide events and metadata.
NICE Uptivity Recording Server	The Uptivity server performs these integration-specific functions: • Requests call audio files from MediaSense • Sends requests to MediaSense to delete unused call records • Manages live monitoring of agents • Captures agents' desktop screens • Captures call metadata from CUCM, UCCX, or UCCE if applicable • Combines audio, metadata, and screen capture into one file

Known Limitations and Considerations

- Configuration settings on the CUCM or CUBE determine which calls are recorded

- With CUCM, phones must have automatic call recording enabled, which records every call. Uptivity can be configured to selectively retain some calls and purge the remainder.

- Customers must plan the available MediaSense disk space for recordings and how long those recordings will be retained

- All call recording requires bandwidth. Neither MediaSense nor Uptivity can control when audio files are sent to Uptivity. Customers should carefully consider the network bandwidth needed for copying call files and the possibility of spikes in bandwidth usage if multiple or large files are copied at one time.

- MediaSense does not support real-time blackouts or call-associated blackouts

- MediaSense does not support API or On-Demand initiated recording

- When the source audio is CUCM, MediaSense creates separate recording files for calls that are transferred, forwarded, put on hold, conferenced, or some combination of these. In other words, what a user experiences as one call may be recorded in multiple files. There is no way to combine the separate files into one. Users must listen to each call recording in Uptivity separately.

- With CUBE, MediaSense makes one recording regardless of holds or transfers. There is no way to separate files.

- Additional software and configuration of MediaSense is required to determine whether it is actively recording calls. Not knowing whether MediaSense is recording may make troubleshooting difficult.

Cisco MediaSense Integration Overview

- There is typically a delay of seven to ten seconds when initiating live monitoring
- For organizations using CUCM and BiB phones, NICE Uptivity can also integrate with the CUCM using TAPI, as well as with Cisco UCCX or UCCE, for additional metadata
- For organizations using Cisco CUBE, NICE Uptivity can integrate with the CUCM using TAPI, as well as with Cisco UCCX, for additional metadata
- For integrations with Cisco UCCX or UCCE, TAPI is required.
- When integrations use Cisco CUBE, NICE Uptivity does not receive call direction information (in other words, indication of whether the call was inbound or outbound).
- When integrations use Cisco CUBE, screen capture and live monitoring are not supported.

Cisco Requirements

Hardware

This integration requires no additional hardware other than that outlined in the Cisco documentation.

Software

- Cisco MediaSense v9.x

Licensing

This integration does not require any additional Cisco licenses for NICE Uptivity.

See Cisco documentation for licenses needed for recording with MediaSense.

NICE Uptivity Requirements

Network

Sufficient network bandwidth is required to support file transfer between the MediaSense Recorder and NICE Uptivity.

Hardware

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

- NICE Uptivity, v5.6 or later

Licensing

Your Uptivity Sales Engineer will provide appropriate licensing information.

Customer Configuration Overview

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

	Customer Configuration Steps for Cisco MediaSense 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	Install and configure all Cisco components according to Cisco's instructions, including MediaSense, UCM, and CUBE as needed.
4	Create a user account for Uptivity on the UCM and provision that account to work with MediaSense. Refer to Cisco documentation for procedural details.
5	Provide the following information to the Uptivity deployment team: • Username for the CUCM account created for Uptivity to use • Password associated with the CUCM account created for Uptivity to use • IP address of the MediaSense server

Customer Integration Tasks

Recordings are copied from the MediaSense recorder to Uptivity by means of the Uptivity integration to the MediaSense API. If MediaSense is recording as planned, there are no customer-specific tasks required for this integration other than the Uptivity account configuration listed in the Customer Configuration Overview.

If your site is using MediaSense together with Cisco TAPI-BiB, UCCX, UCCE, or some combination of these, refer to the *Customer Guide to Cisco TAPI-BiB Integrations*, the *Customer Guide to Cisco UCCX Integrations*, or the *Customer Guide to Cisco UCCE Integrations*, as appropriate.

Customer Administration Tasks

Recordings are copied from the MediaSense recorder to Uptivity by means of the Uptivity integration to the MediaSense API. If MediaSense is recording as desired, there are typically no ongoing administration tasks required for this integration.

Copying of call records from MediaSense to Uptivity is controlled by a recording schedule. Only call records that match the schedule criteria are copied. The schedule **Type** can be *Set Number*, *Percentage*, or *Agent Percentage*. Call recording schedules and screen capture schedules use Device ID (that is, the identifier associated with the physical phone) and Device Alias (that is, the identifier associated with the agent). These options vary depending on your configuration of CUCM, UCCX, and UCCE.

If calls are being missed, search online help for keyword *recording schedule* or contact Uptivity Support for assistance.

Document Revision History

Revision	Change Description	Effective Date
0	Initial version for this release	2016-04-08
1	Rebranded for NICE Uptivity.	2017-03-31

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