MiaRec

Cisco Siprec-Integration-Guide

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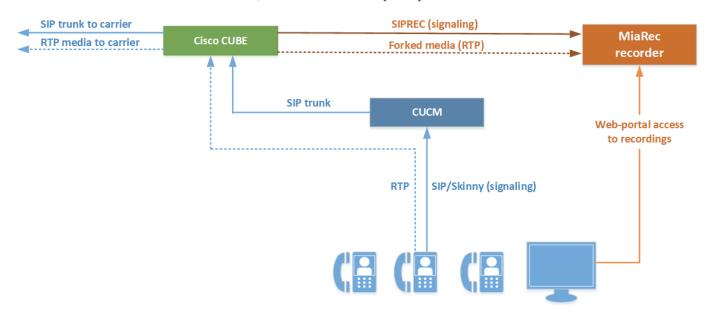
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1. Cisco CUBE SIPREC Recording Integration Guide

This guide provides the instructions for configuring call recordings on Cisco CUBE using SIPREC protocol.

1.1 How it works

The Session Recording Protocol (SIPREC) is an open SIP-based protocol for call recording. The standard is defined by Internet Engineering Task Force (IETF). Cisco CUBE acts as the Session Recording Client, while MiaRec acts as the Session Recording Server. Recording of a media session is done by sending a copy of a media stream to the recording server. Metadata is the information that is passed by the recording client to the recording server in a SIP session. The recording metadata describes the communication session and its media streams, and also identifies the participants of the call.



1.2 Restrictions for Cisco CUBE SIPREC Recording

Cisco CUBE doesn't support SIPREC-based recording for the following calls:

- IPv6-to-IPv6 call recording.
- IPv6-to-IPv4 call recording if the recording server is configured on the IPv6 call legx.
- Calls that do not use Session Initiation Protocol (SIP). Must be a SIP-to-SIP call flow.
- · Flow-around calls.
- \bullet Session Description Protocol (SDP) pass-through calls.
- \bullet Real-time Transport Protocol (RTP) loopback calls.
- High-density transcoder calls.
- Secure Real-time Transport Protocol (SRTP) passthrough calls.
- SRTP-RTP calls with forking for SRTP leg (forking is supported for the RTP leg).
- Multicast music on hold (MOH).
- Recording is not supported if CUBE is running a TCL IVR application.
- Media mixing on forked streams is not supported.
- Digital Signal Processing (DSP) resources are not supported on forked legs.

1.3 Restrictions for Video Recording

- \bullet If the main call has multiple video streams (m-lines), the video streams other than the first video m-line are not forked.
- Application media streams of the primary call are not forked to the recording server.
- \bullet Forking is not supported if the anchor leg or recording server is on IPv6.

2. Cisco CUBE SIPREC configuration

2.1 Step 1. Enter the configuration mode

Device> enable Device# configure terminal

2.2 Step 2. Choose a dummy dial-peer tag for the recorder.

Note, 8000 in this example is a dummy dial-peer tag for the recorder. You need to make sure it doesn't conflict with the the existing dial-peers.

Execute the following command to view a list of the existing dial-peers:

```
Device# show dial-peer voice
```

Check if 8000 is not used yet. Otherwise, choose a different dial-peer tag like 8002 and make the corresponding changes to the commands in the next steps.

2.3 Step 3. Create a SIPREC recorder profile

Here we choose 200 for a recording profile tag. If 200 is not available, then choose a different value and make the corresponding changes to the commands in the next steps.

```
Device(config)# media profile recorder 200
Device(cfg-mediaprofile)# media-type audio
Device(cfg-mediaprofile)# media-recording 8000
Device(cfg-mediaprofile)# exit
```

Where:

- 8000 is a dummy dial-peer for the recorder (see Step 2).
- 200 is a recorder profile tag.

2.4 Step 4. Create a media class that points to SIPREC recorder

Here we choose 100 for a media class tag. If 100 is not available, then choose a different value and make the corresponding changes to the commands in the next steps.

```
Device(config)# media class 100
Device(cfg-mediaclass)# recorder profile 200 siprec
Device(cfg-mediaclass)# exit
```

Where:

- 100 is a media class tag.
- 200 is a recorder profile tag (configured above).

2.5 Step 5. Create a dial-peer pointing to the MiaRec recorder.

```
Device(config)# dial-peer voice 8000 voip
Device(config-dial-peer)# description MiaRec SIPREC recorder
Device(config-dial-peer)# media class 100
Device(config-dial-peer)# destination-pattern 8000
Device(config-dial-peer)# session protocol sipv2
Device(config-dial-peer)# session target ipv:10.1.2.3:5080
Device(config-dial-peer)# session transport tcp
Device(config-dial-peer)# exit
```

Where:

- 8000 is a dummy dial-peer for the recorder (configured above).
- 10.1.2.3:5080 is an IP address and port of the recorder (change it to the ip-address of your MiaRec recording server).
- **destination-pattern 8000** is a dummy configuration. It is ignored by CUBE because this dial-peer is a recorder rather than a SIP trunk.

2.6 Step 6. Assign recorder to the existing dial peer(s).

It is recommended to assign the recorder to the incoming dial-peer rather than to the outgoing peer.

First, check your existing dial-peers by running the following command:

```
Device# show dial-peer voice
```

In the example below, we modify the existing dial-peer 1 that matches the inbound call legs (your dial-peer tag may differ).

Second, modify the existing dial pear by adding the media-class 100 command. This command activates call recording on dial-peer.

```
dial-peer voice 1 voip
description Generic incoming dial match
session protocol sipv2
incoming called-number .
media-class 100
...
```

With such configuration, SIPREC recording will be enabled on all calls passing through CUBE.

If you need to enable SIPREC recording on selective call scenarios, then check [2].

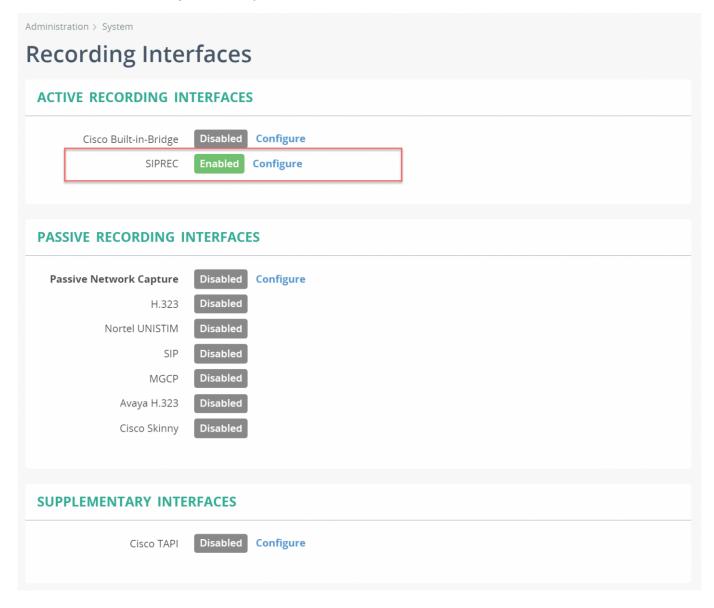
References:

- [1] Cisco Unified Border Element Configuration Guide SIPREC (SIP Recording)
- [2] CUBE Media Forking Dial Peer Question

3. MiaRec SIPREC configuration

In MiaRec web portal, navigate to Administration -> System -> Recording Interfaces.

- Enable "SIPREC" recording interface.
- Disable all other recording interfaces if you do not use them.



Click the **Configure** link for SIPREC interface.

- Select the Enable SIPREC recording check box.
- Change the **Signaling UDP port** and **Signaling TCP port** parameters according to the port configuration in Cisco CUBE. By default, MiaRec is listening on port 5080 for both TCP and UDP signaling data.
- If MiaRec server is located behind NAT, then specify **Public Ip-address** which is used by Cisco CUBE to establish SIPREC connection. Make sure that port forwarding is configured properly on your NAT router. If MiaRec server and Cisco CUBE are in the same network, then leave this parameter empty.
- If necessary, change default values of UDP port range for RTP media packets. Edit parameters Begin RTP port range and
 End RTP port range. Make sure that the port range is large enough for anticipated number of concurrently recorded calls.
 One concurrent call requires one UDP port for single media stream recording and two UDP ports for dual media stream
 recording.



Hint

Make sure that firewall is configured properly and inbound connections on SIP signaling and RTP ports are permitted. For details, see Firewall configuration.

Administration > System > Recording Interfaces

Configure Recording Interface

