



# Dolby Voice Room Version 4.0

## Multi-service Configuration Guide for Cisco WebEx

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# 1 Introduction

Dolby Voice Room supports dialing into third-party video meetings using a Session Initiation Protocol (SIP) Uniform Resource Identifier (URI).

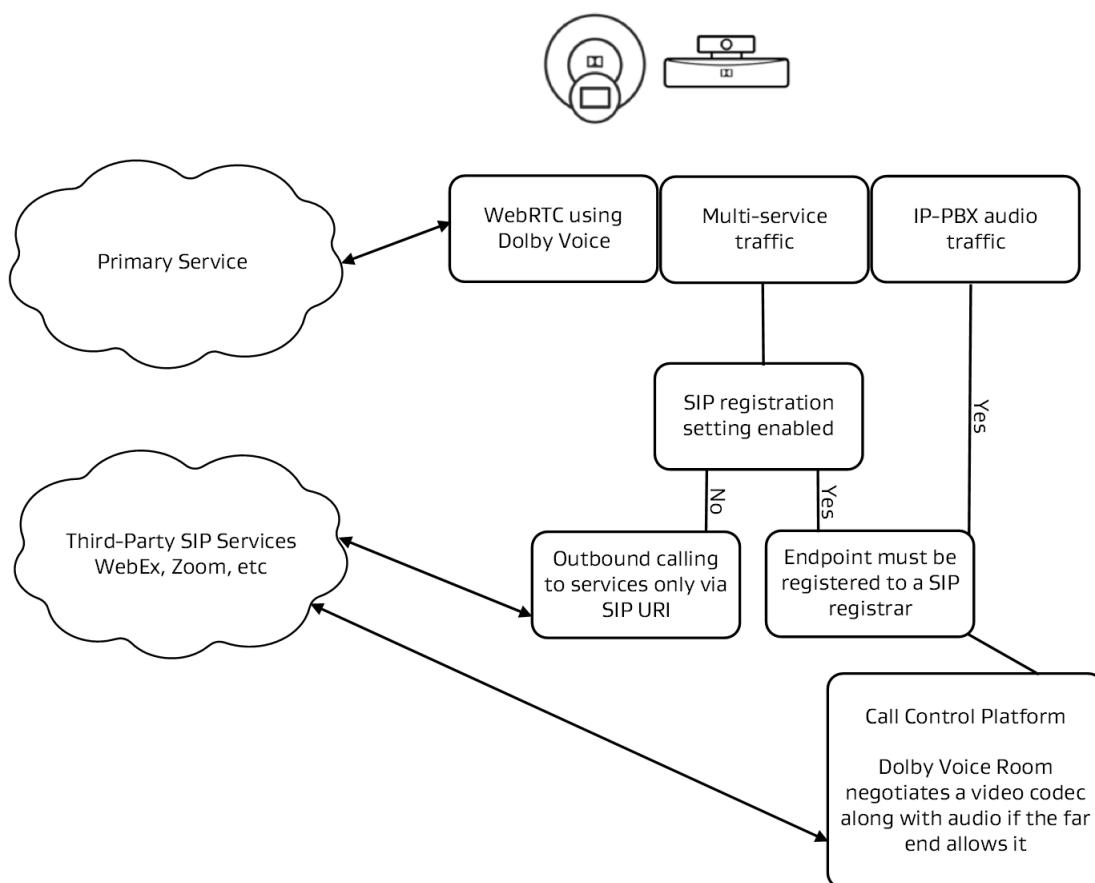
This document outlines configuring the multi-service feature on Dolby Voice Room for Cisco WebEx .

## 2 Multi-service overview

The multi-service feature allows you to join video conference meetings hosted by third-party video conference service providers using a SIP URI.

The figure shows the call flow for a multi-service Dolby Voice Room configuration.

Figure 1: Multi-service configuration call flow



The default transport protocol used is Transport Layer Security (TLS) . To dial using TLS, the URI format is `user@domain.com`. To dial using Transmission Control Protocol (TCP), the URI format is `user@domain.com;transport=tcp`.

## 3 Configuring a Cisco Unified Communications Manager and Expressway Integration

You can make Cisco WebEx calls through Cisco Unified Communications Manager linked with Expressway.

## 3.1 Adding a SIP phone with Cisco Unified Communications Manager

To add a SIP phone with Cisco Unified Communications Manager, you must create a SIP Profile, phone security profile, and add a phone.

### Procedure

1. Create a SIP profile.
  - a) In the Cisco Unified Communications Manager Console, navigate to **Device > Device Settings > SIP Profile**.
  - b) Select the **SIP Profile**.
  - c) In the **SIP Profile Configuration** screen, under **SDP Information**, enable these parameters:
    - **Allow Presentation Sharing using BFCP**
    - **Allow iX Application Media**
    - **Allow multiple codecs in answer SDP**
  - d) Click **Save**.
2. Create a phone security profile.
  - a) Navigate to **System > Security > Phone Security Profile > Add New**.
  - b) Enter the information for these parameters:
    - **Name**
    - **Transport Type**
    - **SIP Phone Port**
3. Add a phone.
  - a) Navigate to **Device > Phone > Add New**.
  - b) **Under Device Information**, enter the information for these parameters:
    - **Device Description**
    - **Device Pool**
    - **Phone Button Template**
    - **Common Phone Profile**
    - **Location, and Owner**
  - c) **Under Protocol Information**, enter the information for these parameters:
    - **Device Security Profile**
    - **SIP Profile**
    - **Digest User**
  - d) Check **Allow Presentation Sharing using BFCP**.
  - e) Click **Save**.

## 3.2 Configuring Expressways C and E

Perform these steps to configure Expressways C and E.

### Procedure

1. Create a SIP trunk on Cisco Unified Communications Manager.
  - a) In the Cisco Unified Communications Manager Console, navigate to **Device > Trunk > Add New**.
  - b) Enter the information for the device parameters:
    - **Device Name**

- **Description**
  - **Device Pool**
  - **Destination Address**
- c) Enable **Retry Video Call as Audio**.
- d) Enter the information for these SIP parameters:
- **SIP Destination Address**
  - **SIP Trunk Security Profile**
  - **SIP Profile**
  -
- e) Click **Save**.
2. Create a SIP trunk security profile for Expressway C.
- a) Navigate to **System > Security > SIP Trunk Security Profile**.
- b) Enter the information for these parameters:
- **Name**
  - **Incoming Transport Type**
- c) Enable these parameters:
- **Accept presence subscription**
  - **Accept out-of-dialog refer**
  - **Accept unsolicited notification**
  - **Accept relaces header**
- d) Click **Save**.
3. Create a SIP profile for Expressway C.
4. Create a new SIP trunk profile.
5. Configure Expressway C.
- a) Navigate to **System > Domain Name System (DNS)**.
- b) Enter the information for the DNS parameters. For example:
- **System host name:** expc
  - **Domain name:** dolby-lab-com
  - **Address 1:** 10.97.22.10
  - **IP address:** 10.97.22.14
- c) Click **Save**.
6. Create three zones on Expressway C.
- a) Navigate to **Configuration > Zones**.
- b) Create the three zones:
- Neighbor
  - Traversal Client
  - Traversal Zone Client
7. Configure Zone 1 to enable connectivity between Expressway C and Cisco Unified Communications Manager.
- a) Enter the information for the zone parameters. For example:
- **Zone Type:** Neighbor
  - **Port:** 5060
  - **Peer 1 Address:** cucm.dolby-lab.com
  - **Zone Profile:** Cisco Unified Communications Manager (9.x. or later)
- b) Click **Save**.

8. Configure Zone 2 to create the handshake between Expressway C and E.
  - a) Enter the information for the zone parameters. For example:
    - **Zone Name:** Traversal Zone Client
    - **Zone Type:** Unified Communications Traversal
    - **Hop Count:** 15
    - **Port:** 7001
    - **Peer 1 Address:** expe.dolby-lab.com
  - b) Click **Save**.
9. Configure Zone 3 to enable communication between Expressway C and E.
  - a) Enter the information for the zone parameters. For example:
    - **Zone Name:** Traversal Client
    - **Zone Type:** Traversal Client
    - **Mode:** On
    - **Port:** 7002
    - **Transport:** TLS
    - **Peer 1 Address:** expe.dolby-lab.com
  - b) Click **Save**.
10. Configure Expressway E.
  - a) Navigate to **System > DNS**.
  - b) Enter the information for the DNS parameters. For example:
    - **System host name:** expc
    - **Domain name:** dolby-lab-com
    - **Address 1:** 10.97.22.10
    - **IP address:** 192.168.148.1
  - c) Click **Save**.
11. Create three zones on Expressway E.
  - a) Navigate to **Configuration > Zones**.
  - b) Create three zones:
    - DNS
    - Traversal Server
    - Unified Communications Traversal
12. Configure Zone 1 to create the handshake between Expressway C and E.
  - a) Enter the information for the zone parameters. For example:
    - **Name:** Traversal Zone Server
    - **Zone Type:** Unified Communications Traversal
    - **Username:** admin
    - **Port:** 7001
    - **TLS verify subject name:** expe.dolby-lab.com
  - b) Click **Save**.
  - c) Verify the status of these parameters:
    - **State:** Active
    - **Connection 1:** SIP Reachable: 10.97.22.14:25002
13. Configure Zone 2 to enable communication between Expressway C and E.
  - a) Enter the information for the zone parameters. For example:

- **Name:** Traversal Server
  - **Type:** Traversal Server
  - **Username:** admin
- b) Click **Save**.
- c) Verify the status of these parameters:
- **State:** Active
  - **Connection 1:** SIP Reachable: 10.97.22.14:25001

**14.** Configure Zone 3 to enable communication between Expressway E and outside DNS.

- a) Enter the information for the zone parameters. For example:
- **Name:** DNS-Correct
  - **Type:** DNS
- b) Click **Save**.

### 3.3 Configuring Cisco WebEx

You must create a SIP route pattern and search rules to configure Cisco WebEx on Cisco Unified Communications Manager

#### Procedure

- 1.** Create a SIP route pattern on Cisco Unified Communications Manager.
  - a) Navigate to **Call Routing > SIP route pattern > add new**
  - b) Enter the information for the pattern definition parameters. For example:
    - **IPv4 Pattern:** \*.webex.com
    - **SIP Trunk/Route List:** Expressway\_trunk-C
  - c) Click **Save**.
- 2.** Create a Cisco WebEx search rule on Expressway C.
  - a) Navigate to **Configuration > Dial peer > Search rule > New**.
  - b) Enter the information for these search rule parameters. For example:
    - **Priority:** 30
    - **Pattern type:** Regex
    - **Pattern string:** (\*.\*)@(\*)(\.\webex\com).\*
    - **Pattern behavior:** Replace
    - **Replace string:** \1@\2\3
    - **Target:** Traversal Client
    - **State:** Enabled
  - c) Click **Save**.
- 3.** Create a Cisco WebEx search rule on Expressway E.
  - a) Navigate to **Configuration > Dial peer > Search rule > New**.
  - b) Enter the information for the search rule parameters. For example:
    - **Source name:** 30
    - **Pattern string:** (\*.\*)@(\*)(\.\webex\com).\*
    - **Replace string:** \1@\2\3
    - **Target:** DNS-Correct
    - **State:** Enabled
  - c) Click **Save**.

## 4 Setting up a Cisco WebEx account

For Cisco WebEx accounts, you do not need to obtain any special licenses for SIP endpoints.

### Procedure

1. Create a corporate or single user-based account as required.
2. After you have successfully created the account, add a meeting license for each individual user based on the organization or individual requirements.

## 5 Setting up Dolby Voice Room

To dial into Cisco WebEx meetings, the URI has to be in the format `username@dolbyvoice.my.webex.com;uriproxy=1;transport=tcp`, with the Cisco VCS value (in `SIP.Pbx.URIDialingProxy`) empty, and must have `Sip.Pbx.OutboundProxy1` configured as CUCM.

## 6 Making a call through Cisco VCS

You can use Dolby Voice Room to make Cisco WebEx calls through Cisco VCS.

To dial into Cisco WebEx meetings, the URI has to be in the format `username@dolbyvoice.my.webex.com;uriproxy=1;transport=tcp`, and you must configure the Cisco VCS value (in `SIP.Pbx.URIDialingProxy`) for calls that need to go through Cisco VCS.

## 7 Troubleshooting

Perform these steps to troubleshoot calls between Cisco Unified Communications Manager and Expressways C and E.

### Procedure

1. Verify that a SIP router pattern was created on Cisco Unified Communications Manager.
2. Verify that the trunk is up.
3. Verify that all three zones Expressways C and E are active.
4. Navigate to **Status > calls > history** to check the status of Expressway C and E.
5. Verify that the organization has RMS licenses. Otherwise, service error 503 will display for all conference services, except Cisco WebEx.

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