COLLABORATION TRANSITIONS

Calling:

Transitioning from Unified CM to Webex Calling

CTG Technical Marketing Engineering Team
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Calling: Transitioning from Unified CM to Webex

Scenario Introduction
Calling: Unified CM to Webex

Scenario Introduction: Decision

This scenario applies specifically to transitioning from on-premises Unified CM to Webex Calling deployments.

If any of the following are critical for or apply to your deployment, carefully review all material before transitioning:

- Phone models other than Cisco 7800 and 8800 IP phone series.
- Complex or numerous integrations with other on-premises systems / solutions.
- Complex dial plan and/or highly granular classes of service.
- Calling predominately within the organization.
- Restrictive, limited, or unreliable Internet access.
- Stringent data privacy and ownership policies.
- Compliance requirement for on-premises or in-country media recording and storage.
Calling: Unified CM to Webex

Scenario Introduction: Overview

Calling transition scenario covering the transition from on-premises Unified CM calling to Webex Calling deployment

Scenario Objective

- To evaluate the transition FROM Unified CM (on-premises calling solution) TO Webex Calling (cloud calling solution)
- To explore this calling solution transition with a focus on:
  - User experience: Device user interface, calling features and functions.
  - Administrative experience: Provisioning, management, and troubleshooting
Scenario Introduction: Base Architecture

» Architecture based on the **Enterprise On-Premises Preferred Architecture** (version 12.x)

» **Unified Communications Manager (Unified CM)** call control

» Video endpoints, desk phones, and Jabber software clients register to Unified CM for calling services

» **Expressway-C/E** pairs for firewall traversal
Calling: Unified CM to Webex

Scenario Introduction: Scope

• Enterprise calling resources are moved from traditional on-premises Unified CM calling solution to cloud calling solution, Webex Calling.
  » While video conferencing and other meeting flows are not included as part of this scenario evaluation, for the purposes of endpoint transition it is assumed that video endpoints in these deployments are shared devices used for point-to-point or multi-point conferencing.

• Only features and functions for enterprise on-premises calling deployments were evaluated with the Webex Calling environment.
  » 80/20 Rule: It is expected this scenario will be applicable to ~80% of enterprise customers, understanding that ~20% of customers may have additional considerations or requirements not covered. However, even in those cases, this transition map may still be used as a potential future path of transition.

• Only Cisco Jabber (desktop and mobile), 7800 / 8800 series endpoints, CE video endpoints, and Webex Teams (desktop and mobile) were evaluated.
Collaboration Transitions

Calling: Transitioning from Unified CM to Webex

Mapping the Transition
Calling: Unified CM to Webex

Mapping the Transition: High-Level Transition Map

0. Unified CM Calling

1. Unified CM + Webex Calling

2. Webex Calling

Note: This map is a visual representation of the workload transition(s), highlighting the primary architectural changes during the deployment.

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1 CE video endpoints register to Webex Teams platform.
Note: This map is a visual representation of the workload transition(s), highlighting the primary architectural changes during the deployment.
Calling: Unified CM to Webex
Unified CM Calling Deployment

1 Expressway MRA/B2B and Unity Connection voice / unified messaging are optional.
Calling: Unified CM to Webex

Unified CM Calling Flow

- Cisco Unity Connection
- Cisco Meeting Management
- TMS / TMSXE
- Cisco Meeting Server
- Expressway (MRA & B2B)

Unified CM Calling – SIP (registration, call routing)
Call Media – RTP/sRTP
Calling: Unified CM to Webex

Mapping the Transition: Step 1 – Unified CM + Webex

Note: This map is a visual representation of the workload transition(s), highlighting the primary architectural changes during the deployment.
What Changes with Unified CM and Webex Calling?

- **Licensing:** Move to Flex Calling licensing to begin consuming Webex Calling which includes CUBE Trunk for Local Gateway and firmware migration licenses.\(^1\)

- **On-Premises Calling Integration:** Local Gateway (IOS-XE-based) for Webex Calling integration to Unified CM and access to the PSTN.

- **Directory Integration:** Directory Connector\(^2\) pushes and regularly synchronizes on-premises users in the corporate directory to the organization’s Webex identity store.

- **Dial Plan:**
  - Given dual call control systems, dialing habits for users can change during transition.
  - Dialing class of restrictions must be revisited during transition.

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\(^1\) CUBE platform licensing (voice, security, throughput (vCUBE only)) also required and not included in Flex Calling license.

\(^2\) Directory Connector is an optional component. Users may also be added manually.
Calling: Unified CM to Webex

Before – Unified CM Calling

Cisco Unity Connection
Expressway (MRA & B2B)
Unified CM
ON-PREMISES
REMOTE (MRA)

1 Expressway MRA/B2B and Unity Connection voice / unified messaging are optional.
Voicemail: **Unity Connection** continues to provide voice / unified messaging for on-premises users.

On-Premises Call Control: **Unified CM** continues to provide registration and call routing for some endpoints.

Cloud Call Control and Voicemail: **Webex Calling** provides registration and call routing for desk phones and Webex Teams and voice / unified messaging for cloud users.

Endpoints: Some hardware endpoints and Jabber continue to use Unified CM calling.

Users: **Directory Connector** is the integration point for cloud user identity.

PSTN: **Local Gateway** (IOS-XE) for PSTN access for cloud-registered endpoints.

Remote Endpoints: Some hardware endpoints and Jabber continue to connect to Unified CM calling over MRA.

Cloud Endpoints: Some hardware endpoints and Webex Teams use Webex Calling.

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1 Optional flows and components.
2 7800 and 8800 series only.
Calling: Unified CM to Webex

After – Unified CM and Webex Calling Flow

1

Cisco Unity Connection
Cisco Meeting Management
TMS / TMSXE
Cisco Meeting Server

Unified CM

Webex

Expressway

Cisco
Webex

Unified CM Calling – SIP
(registration, call routing)

Webex Calling – HTTPS
(registration, call routing)

Call Media – RTP/sRTP

Note: On-premises call flows are unchanged and are therefore not shown.

1 Expressway MRA flow is optional.
Note: This map is a visual representation of the workload transition(s), highlighting the primary architectural changes during the deployment.
Calling: Unified CM to Webex

What Changes with Webex Calling?

• **PSTN Access:** Local Gateway (IOS-XE based) for Webex Calling access to the PSTN. Optionally, Cloud-Connected PSTN (CCP) via provider can also provide PSTN access for cloud-registered endpoints.

• **Cloud Calling:** Remove on-premises call control, voice messaging, and Expressway MRA firewall traversal for complete cloud-based calling deployment.

• **Video Endpoints:** Register to Webex Teams platform as Webex devices allowing continued use as shared device for point-to-point and multi-point conferencing. URI for video endpoints will change after transition.
Calling: Unified CM to Webex

Before – Unified CM and Webex Calling

1 Optional flows and components.
Decommission On-Premises Voicemail: 
Unity Connection voice / unified messaging no longer required\(^1\)

Decommission On-Premises Call Control: 
Unified CM calling no longer required\(^1\)

Decommission Firewall Traversal: 
Expressway is no longer required for cloud-registered endpoints\(^1\)

Cloud Connected PSTN (CCP) (and/or Local Gateway) for PSTN access for cloud-registered endpoints.

On-Premises Endpoints: 
Desk endpoints\(^2\) and Webex Teams\(^3\) use Webex Calling. Video endpoints\(^4\) use Webex Teams platform.

Local Gateway (IOS-XE) (and/or CCP) for PSTN access for cloud-registered endpoints.

Remote Endpoints: 
Desk endpoints\(^2\) and Webex Teams\(^3\) use Webex Calling. Video endpoints\(^4\) use Webex Teams platform.

1. Maintain on-premises call control, voice mail & firewall traversal as required for any devices / users not transitioned to cloud calling.
2. 7800 and 8800 series only
4. Video endpoints running CE code.
Calling: Unified CM to Webex

After – Webex Calling Flow

Webex Calling – HTTPS (registration, call routing)

Webex Device – HTTPS (registration, call routing)

Call Media – RTP/sRTP

Cisco

Unity

Connection

Expressway

TMS / TMSXE

Webex

Device

HTTPS

(registration, call routing)

PSTN

Cisco

Meeting

Management

Meeting

Server

Unified

CM

PSTN

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Collaboration Transitions – Calling: Unified CM to Webex
Webex Calling Reduces Cost & Simplifies Management

- **Reduced total cost of ownership (TCO)**
  - No requirement for on-premises Unified CM service nodes.
  - No IT management resources required to maintain & support on-premises calling system.

- **Easy to maintain**
  - Easier control and management for IT through simple web portals.
  - Automatic continuous upgrades in the cloud ensure deployment is up to date with the latest security fixes and features, further reducing burden on IT management.
There are many other compelling reasons for transitioning from Unified CM on-premises to Webex Calling:

• **Built for a mobile workforce enabling anywhere, anytime calling**
  Cloud calling enables global reach without costly distributed on-premises infrastructure. Further, universal availability of internet bandwidth allows users at any location to make calls over their local Internet connection reducing enterprise network bandwidth consumption.

• **Increased scalability and resilience**
  Webex calling provides for larger scale deployments with greater reliability than on-site calling deployments.

• **Speed of innovation**
  Cloud features are delivered faster without requirement for maintenance windows or complex upgrade processes.

• **Encrypted secure calling delivered on carrier-grade cloud infrastructure**
  With global regulatory expertise and compliance across all markets served, Webex cloud platform implements audited, professional security practices.
Calling: Unified CM to Webex

What is Different When Moving to Webex Calling

The following tables highlight key technical considerations to be aware of when transitioning from Unified CM on-premises calling to a Webex Calling cloud deployment.

The considerations have been divided into the following categories:

» Licensing
» Endpoints
» Features
» Automation and Integrations
## Licensing and Endpoint Considerations

### Considerations for licensing and endpoints

<table>
<thead>
<tr>
<th>Category</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Licensing</strong></td>
<td>• Make sure you have enough Flex Calling licenses in Webex Control Hub to support user and endpoint transition.</td>
</tr>
<tr>
<td></td>
<td>• CUBE platform licensing (voice, security, throughput (vCUBE only)) also required and not included in Flex Calling license.</td>
</tr>
<tr>
<td></td>
<td>• Please refer to the <a href="#">data sheet</a> for important information on Flex licensing for Webex Calling.</td>
</tr>
<tr>
<td><strong>Endpoints</strong></td>
<td>• Device support with Webex Calling is currently limited to the Cisco IP Phone 6800, 7800, and 8800 series devices. Refer to <a href="#">Supported Devices for Webex Calling</a> for information on the latest supported devices.</td>
</tr>
<tr>
<td></td>
<td>• In order to transition on-premises phones (7800 and 8800 series) to Webex Calling firmware migration is required to register the devices to the Webex Calling platform.</td>
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<tr>
<td></td>
<td>• Video endpoints running CE firmware (including desktop and room video devices) for point-to-point and multi-point conferencing register to the Webex Teams platform.</td>
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## Features

Webex Calling supports the most common set of calling features, with more features planned for future releases. Information about the latest supported features are documented in the Webex Calling release notes available [here](#).

Specific features which might prevent full migration include:

- On premises audio conferencing with Unified CM features
- Forced authorization codes (FAC) / Client matter codes (CMC)
- Corporate branding for phones and music on hold
- Least cost routing / tail end hop-off (TEHO)

## Automation and Integrations

Currently APIs and other automation features are not available for Webex Calling deployments. APIs are critical for automating configuration as well as monitoring cloud calling.

Integrations to 3rd party applications (Attendant Console, Paging, etc.) are not currently available for Webex Calling deployments.
Collaboration Transitions

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References
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References

Licensing

• Cisco Collaboration Flex Plan:

Network Requirements

• Prepare Your Environment for Webex Calling

• Port Reference Information for Webex Calling
  https://help.webex.com/en-us/b2exve/Port-Reference-Information-for-Cisco-Webex-Calling

Phones

• Supported Devices for Webex Calling

• Configure & Manager Webex Calling Devices

Users

• Getting Started with Cisco Webex Control Hub

• Configure & Manage Webex Calling Users
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References

Calling Configuration

• Configure Webex Calling for Your Organization

• Configure Webex Calling Features
  https://help.webex.com/en-us/0r7a2z/Set-Up-Your-Webex-Calling-Features

• Configure Unified CM for Webex Calling

Local Gateway

• Configure Local Gateway (IOS-XE) for Webex Calling
  https://help.webex.com/en-us/b2exve/Port-Reference-Information-for-Cisco-Webex-Calling

Calling Transition Deployment Guide

• Calling: Transitioning from Unified CM to Webex Deployment Guide