



## MEETINGS

# Transitioning from TelePresence Server / CMR-H to Webex

Deployment Guide

August 31, 2021, 2021





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# Introduction

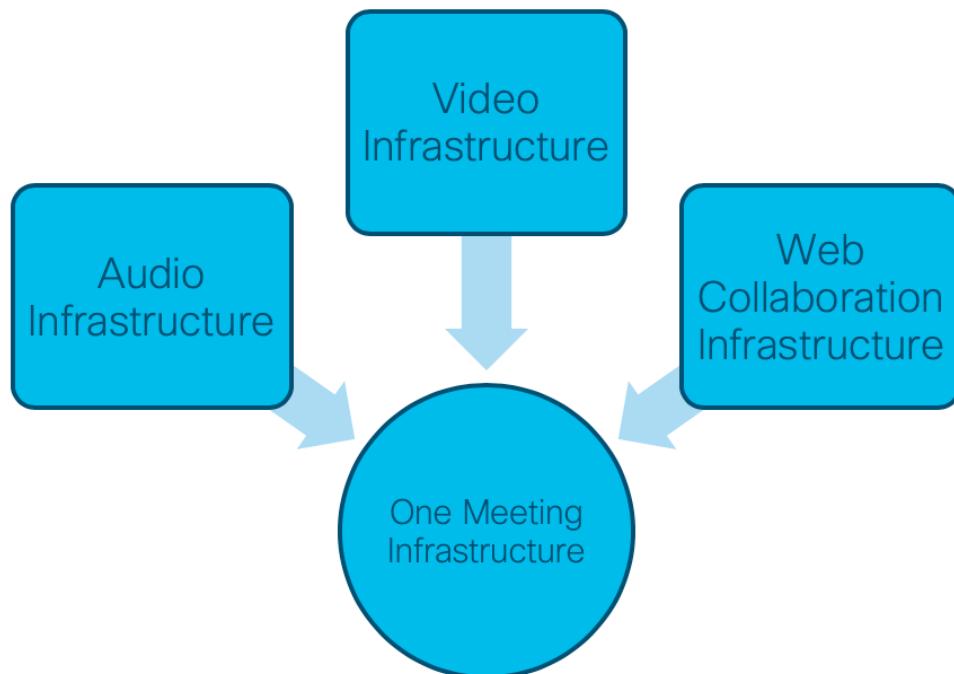
## Target Audience

This migration document is intended to be used by teams or individuals with experience configuring and administering Cisco TelePresence Conductor, Cisco TelePresence Server (TS), Cisco TelePresence Management Suite (TMS) and Webex Meetings (Meetings). There are links to other documentation throughout this document to assist.

## Overview

Historically, network evolution developed through a voice centric architecture, a video centric architecture and a web collaboration architecture. As shown in Figure 1, each of these were separate collaboration functions that did not integrate well but were successful individually.

**Figure 1. Bringing Audio, Video, and Web Collaboration into a Single Meeting Infrastructure**



As technology advanced, the merging of these architectures was a natural progression from the different technology islands. Vendors such as Cisco, began integrating more video specific features into Cisco Unified Communications Manager (Unified CM) to allow registration of all endpoints both audio and video, to a centralized call control system. In addition, the on-premises meeting infrastructure began to integrate with the web collaboration architecture of Webex so that on-premises video endpoints or a video bridge could communicate and collaborate with web participants. This evolution of architectures enabled a single meeting infrastructure, creating a whole new set of simple collaboration options that expanded the way people communicated.

This phased approach of integrating all the architectures together as a single voice, video, and meetings architecture, led to some challenges for customers, who had to decide what to do with these products when the products reached a maturity stage and new products are introduced. For example, in November 2016 Cisco launched a new extension to the Webex (formerly Spark) service, that enabled many of the media services delivered in the cloud to be handled on the customer premises, known as the Edge Video Mesh Service (formerly Cisco Hybrid Media Node).

When this product was released, it gave Cisco customers an option to consume Meetings directly from the cloud or to add the optional Edge Video Mesh node (VMN) to handle meeting media locally with overflow and cascade to the Meetings in the cloud.

As shown in Figure 2, a typical customer normally has several different collaboration infrastructure components on the network, a bridging platform, a call control platform, and a management and scheduling platform. In the Cisco architecture this would include the TS or MCU for bridging, the Unified CM, or the Cisco Video Communication Server (VCS) / Cisco Expressway for call control, and the TMS for management, scheduling and Microsoft Exchange integration. Components may vary slightly in some environments, but this will be the basis for the rest of the document.

**Figure 2.** On-Premises Collaboration Architecture: Bridging, Call Control, Management and Scheduling

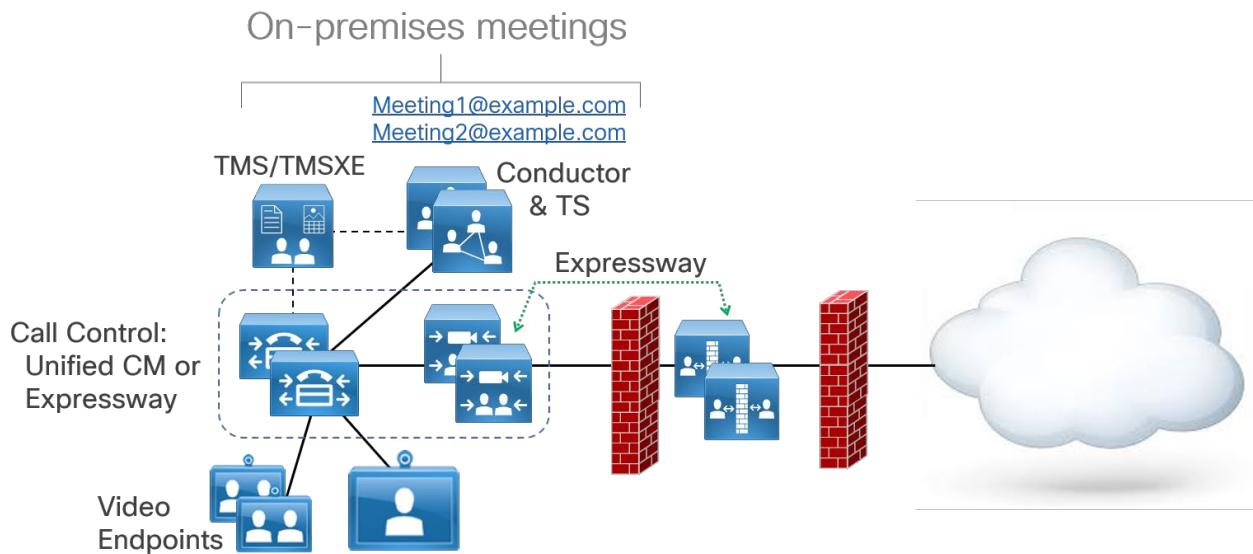


Table 1 lists the key elements of the on-premises architecture prior to transitioning to Cisco Webex:

**Table 1.** Before: On-Premises Collaboration Infrastructure Components

Product	Description
Cisco TelePresence Conductor	Manages conferencing resources.
Cisco TelePresence Server (TS)	Provides audio and video conferencing resources.
Cisco Collaboration Meeting Room – Hybrid (CMR – H)	Cisco Webex cloud service that cascades to the on-premises Cisco MCU or TS to connect a single participant's video across the cascade to the remote bridge.

**Cisco TelePresence Management Suite (TMS) / Telepresence Management Suite for Microsoft Exchange (TMSXE)**

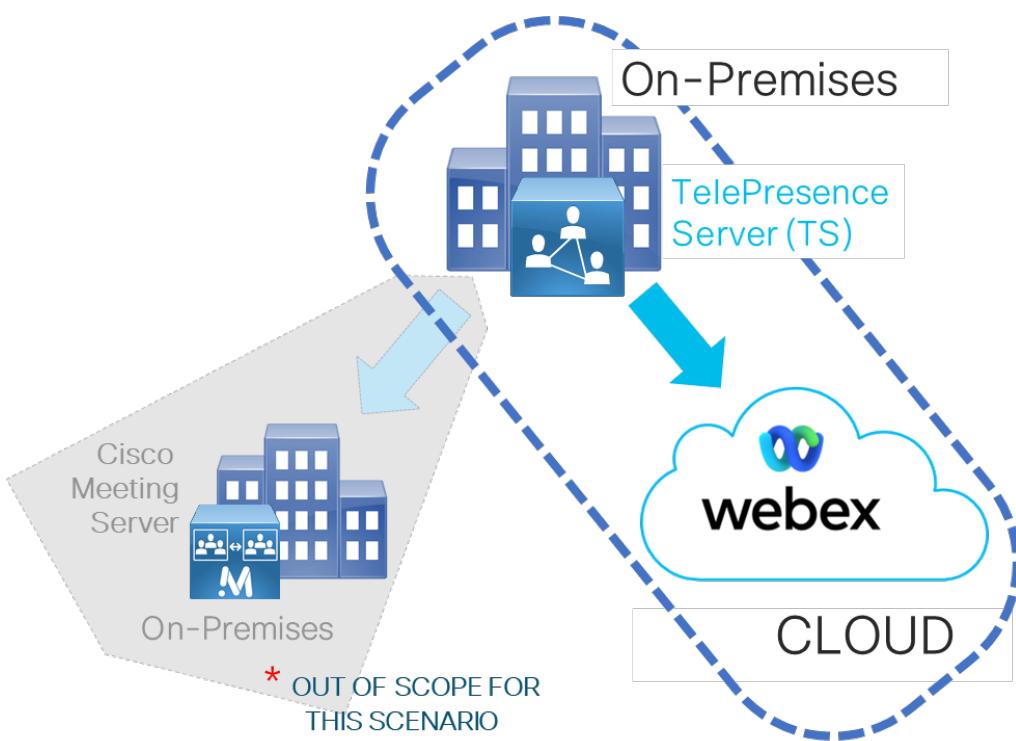
Provides meeting management, scheduling, Exchange integration, conferencing integration, and other advanced video features.

As illustrated in Figure 3, customers who have the MCU, TelePresence Conductor, and TS have a choice of transitioning the architecture toward a Meeting architecture or staying completely on-premises by transitioning the bridge services to the Cisco Meeting Server (CMS).

The decision needs to be made based on customer's functionality requirements. Customers that require the following should instead transition the existing bridging infrastructure to on-premises CMS rather than Webex:

- On-premises media
- White glove meeting scheduling and management
- On-premises Microsoft interop

**Figure 3.** *On-Premises Bridging Transition Decision Tree*



**Note:** For information on transitions from TS to CMS, refer to the TS to CMS transition documents available at <https://www.cisco.com/go/ct>.

Customers that wish to learn more about CMS should visit the [CMS product web page](#).

For customers who want to start the process of adding cloud meeting services with both scheduled meetings using unique meeting IDs or ad hoc meetings with Personal Rooms (PR) should consider Meetings. This meeting service allows the customer to leverage the Webex global architecture for scale and connectivity. Participants on the corporate network and external participants can join the meeting from a video endpoint, desktop, or mobile application along with a third-party Microsoft client, such as Skype for Business.

This document focuses on the customer with TelePresence Conductor, TS, and Collaboration Meetings Room - Hybrid (CMR-H) solutions that want to understand the general steps, considerations, and requirements for enabling a new Meeting architecture as depicted in the next section.

# Core Components

## Roles of the Devices Involved

As shown in Figure 4, the target architecture for this migration includes several new infrastructure components. This includes Meetings Service, the Video Mesh node for on-premises media, Directory Connector for identity integration, Webex Device Connector for cloud endpoint analytics and hybrid connectors on the Expressway Connector host for calendar integration.

**Figure 4.** After: Cisco Webex Meetings Architecture

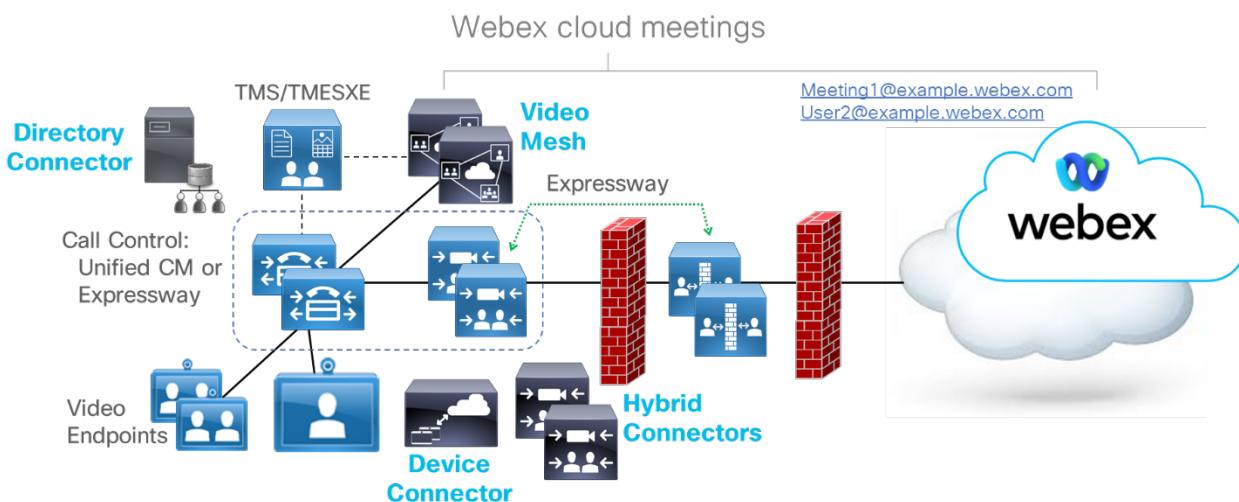


Table 2 lists the new elements of the architecture after transitioning to Webex

**Table 2.** After: Webex Infrastructure Components

Product	Description
Webex Meetings	Provides subscription-based conferencing service delivered through the Webex Meetings cloud.

<b>Edge Video Mesh</b>	On-premises software with certain cloud microservices to connect local video participants to the Webex meeting and create a cascade to Meeting with multiple video and audio streams going across. [Optional]
<b>Calendar Connector</b>	Hybrid connector running on the Expressway-C Connector Host. Enables "@" scheduling. The calendar connector could be deployed on-premises for Exchange (Hybrid Connector) or as a cloud-to-cloud integration for Exchange Online (O365) and Google Calendar.
<b>Webex Device Connector</b>	On-premises software for hybrid registration of video endpoints enabling cloud analytics and features for on-premises devices.
<b>Directory Connector</b>	Hybrid connector running on a Windows domain server. Enables integration of enterprise directory and identity services with Webex.



# Transition

## Transition Getting Started

Below is a summary of items to consider when performing the migration of meeting services to Webex. Some items are optional and can be performed later.

### Pre-Transition:

#### 1. Decide on meeting transition: On-premises or cloud?

Make a decision based on requirements to transition meetings to another on-premises bridge (for example, CMS or to Meetings in the cloud). The assumption for the rest of the steps is Meetings.

#### 2. Acquire Meetings contract and user licenses.

Acquire a Meetings contract and user licenses. This can be achieved by having a [Collaboration Flex Plan](#). These details are not covered in this document and should be discussed with the Cisco Account team.

#### 3. Decide on whether Edge Video Mesh is a requirement.

Decide if Webex Edge Video Mesh is a requirement. Is it going to be installed now or in the future? Is there adequate compute power available to meet the requirements of Edge Video Mesh or do one or more CMS 1000 hardware devices need to be procured?

- The Edge Video Mesh Node (VMN) is a good option for customers that want to keep the media on-premises as much as possible. While this is not a required component, VMN can provide benefits of locally hosted media, overflow to the cloud for capacity, and 1080p experience for main video of locally connected participants.
- The VMN software is installed on the customer's premises. It is recommended to be installed on the CMS 1000 hardware platform but is also supported on the MM410v if the customer wants to reuse existing hardware. More information on the hardware requirements can be found in the [Deployment Guide for Webex Video Mesh](#). If reusing other compute resources, VMware ESXi 6.0 or higher is required before installing the VMN software.

- If the customer needs to procure one or more of the hardware boxes for VMN installation, the number of boxes will depend on the amount of concurrent video meetings and meeting participants projected at the peak usage. Unlike the traditional TS and MCU on-premises bridges, this new solution allows for overflow to cloud resources when the VMN is at capacity. With the overflow to cloud capabilities, the exact planning of port capacity is not as stringent as a traditional on-premises bridge.
- The customer can order the hardware via a partner with the CTI-CMS-1K-BUN-K9 SKU with an option for Video Mesh software, R-HMN-K9, for the conferencing server activation license. The software image can be downloaded from the Control Hub. Contact the Cisco Account team or partner for customer specific pricing.

#### 4. Decide if Webex Device Connector will be deployed.

Webex Device Connector enables configuration and setup of hybrid registration for on-premises video devices.

- The Device Connector software is installed on a Windows or Mac computer on the customer's premises. Refer to the [Cisco Webex Device Connector](#) article for more information on the hardware requirements.

#### 5. Create new Webex site with latest release of software.

Contact the Cisco Account team or partner for help in creating a new Webex site.

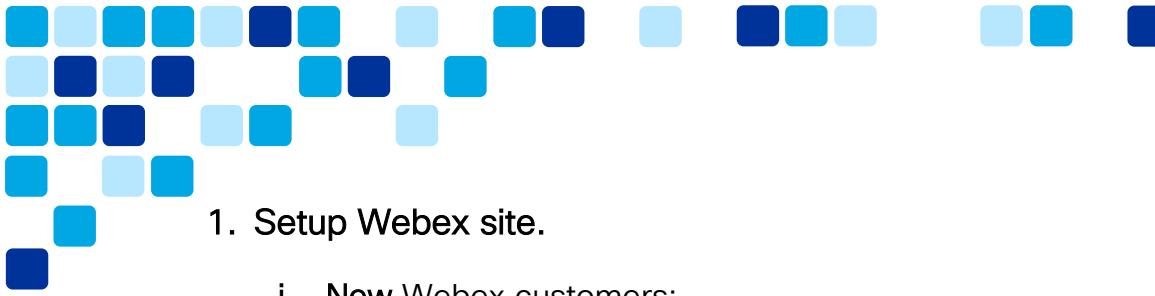
#### 6. Decide on meeting scheduling method and email integration.

How is scheduling of meetings going to happen in the organization? For example, @webex, @meet and/or Meetings Desktop application. What about email integrations? Google or Microsoft? For Microsoft implementations identify where the mailboxes are located based on the type of Exchange deployment (on-premises, hybrid, or O365).

## Transition Steps and Considerations

Follow these transition steps to move the on-premises bridging service to Meetings.

### Transition:



## 1. Setup Webex site.

### i. New Webex customers:

- Activate a new Webex Site and Webex organization
- A Webex site is specific to the customer organization and must be created with “sitename”.webex.com where “sitename” is a unique name specific to the customer, for example cisco.webex.com. Once the Cisco Account team or partner creates a site, it can be used for meetings.
- A [Webex organization](#) needs to be setup for managing the user accounts and services available to the organization.

[proceed to step 2]

### ii. Existing Webex customers - Customers with an existing Webex site with current user accounts and passwords that want to keep the same credentials perform the following steps:

- Link the site, then the user accounts and credentials by following the [Link Cisco Webex Sites to Control Hub](#) document. Linked sites will get the analytics for the meetings on the Control Hub after the site linking process is completed.

## 2. Import users via the Directory Connector (optional).

Creating users in a Webex Organization can be done via a connection to the active directory accounts using the Directory Connector which is a recommended step but not required. To enable Directory Connector follow the steps in the [Deployment Guide for Cisco Directory Connector](#).

## 3. Enable Single Sign On (optional).

Single Sign On (SSO) is available for customers to enable Webex users to login in securely by using an identity provider (IdP). The SSO process is not required for this document but is recommended. To find out more about the supported IdPs and the configuration requirements, go to the [Single Sign-On Integration in Cisco Webex Control Hub](#) document.



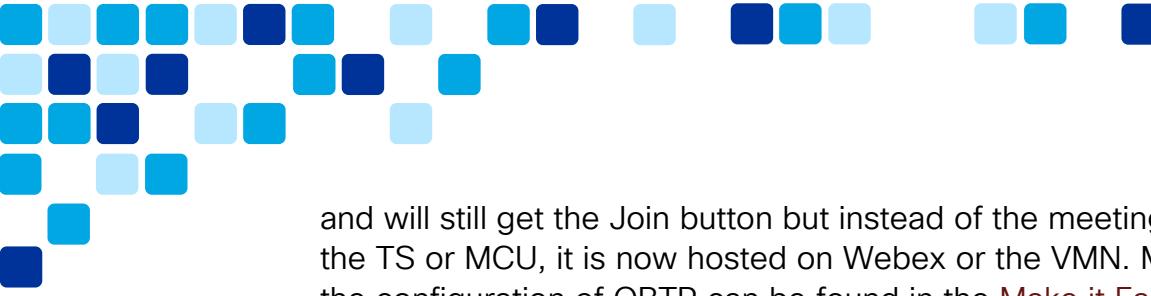
#### 4. Setup scheduling environment.

- For Google integration follow the [Google Calendar with Cloud-Based Hybrid Calendar Service](#) section of the *Deployment Guide for Cisco Webex Hybrid Calendar Service*.
- For Microsoft integrations refer to the following sections of the *Deployment Guide for Cisco Webex Hybrid Calendar Service*:
  - i. On-Premises: [Microsoft Exchange or Office 365 with Expressway Calendar Connector](#).
  - ii. Hybrid: [Hybrid Exchange and Office 365 Deployments](#).
  - iii. O365: [Office 365 with Cloud-Based Hybrid Calendar Service](#).
- For Productivity Tools customers, this software needs to be upgraded to the Meeting Desktop application. This requires the removal of the existing Productivity Tools application and installation of the new Meetings Desktop application. To install the software, follow the [Download and Set Up the Cisco Webex Meetings Desktop App](#) document.
- For CMR-H customers with Productivity Tools, the new Meetings Desktop application will be installed as part of an upgrade when the user logs into the new Webex Site.

#### 5. Begin scheduling meetings.

For customers starting on a new Webex Site, begin scheduling meetings with a small subset of users.

- Use the scheduling method chosen in [Pre-Migration Step 6](#), @webex, @meet, or the Meetings Desktop application.
- There is not a mechanism to programmatically update meetings with the new Webex meeting information from the on-premises bridge in the calendar invite or to import existing TMS scheduled meetings into Webex, hence the reason for creating new meeting invitations.
- The feature known as One Button to Push (OBTP) has been around in the on-premises architecture for a long time. It can still operate the same as before with Meetings. The user behavior is the same for scheduling and joining the meetings. The on-premises registered video endpoints are managed by TMS



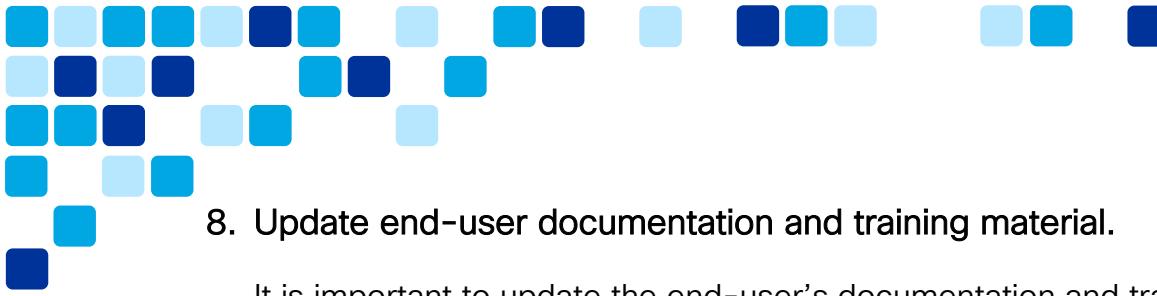
and will still get the Join button but instead of the meeting being hosted on the TS or MCU, it is now hosted on Webex or the VMN. More information on the configuration of OBTP can be found in the [Make it Easier for Video Devices to Join Meetings with OBTP](#) document.

## 6. Install Video Mesh node or nodes (optional).

- This is an optional component that can be installed at this time, later, or not at all.
- Download and install the software on the hardware. Register the VMN in Control Hub.
- Configure the call control integration to Video Mesh
- Configure CMR resource type option to “Video Mesh” in Control Hub to allow cascades from the Edge Video Mesh to Meetings.
- The steps to complete all the items above are documented in the [Deployment Guide for Cisco Webex Video Mesh](#).
- Schedule or connect to a personal room for a meeting with multiple participants. End the meeting and verify in the Control Hub Video Mesh reports (Analytics -> Video Mesh) that the calls are not overflowing to the cloud. The reporting is not real time and will be delayed.

## 7. Install Webex Device Connector (optional).

- This is an optional component that can be installed at this time, later, or not at all.
- Download and install the software on a Windows or Mac computer. Then login to the tool using Control Hub full administrator or device administrator credentials.
- Configure the software to onboard and manage your devices.
- The steps to install and configure the software are documented in the [Cisco Webex Device Connector](#) article.



## 8. Update end-user documentation and training material.

It is important to update the end-user's documentation and training for the new scheduling architecture including OBTP, @webex, and the new Meetings Desktop application. For assistance, refer to the [Cisco Webex Meetings Video Tutorials](#) for further information. A good general end-user reference for Meetings screen layout and icons is the [Get Started with Cisco Webex Meetings for Attendees](#) document.

## 9. Transition user groups to the Webex Meeting site in phases.

Begin a phased transition of groups of users to the new Meetings Site for all scheduled, ad hoc, and personal room meetings until the full organization is using the new Meetings experience.

## Post Transition Steps and Considerations

After the transition is completed, there are few additional steps that need to be completed.

### Post Transition:

#### 1. Remove TelePresence Server/TelePresence Conductor from production.

**Note:** If video ad hoc escalation is a requirement, meaning a point-to-point video call is established and one of the users in the call adds a third video participant, the call moves from a point-to-point call to a multiparty call on the TS automatically. This happens because the bridge is defined as a media resource in Unified CM. This same behavior is not available in Meetings and will require the continued use of the Cisco TelePresence Conductor and TS till a similar feature is available in Webex or until the user behavior has changed to meet on a Personal Room.

#### 2. Disable CMR-H session type in Webex Site Admin at site and user level.

**Note:** This post-migration steps applies to CMR-H deployments. For more information on transitioning CMR-H to Webex, refer to the [Appendix](#).

- Site Level:
  - Use Site Admin -> Common Site Settings -> OneTouch TelePresence Options

- Uncheck “Allow Cisco Webex OneTouch meetings (*meetings only*)”

- User Level

- Use Site admin -> Edit User-> Session types
- Uncheck “Webex Meetings 1000 Pro: Webex Meetings TelePresence” for each user.

### 3. Monitor Control Hub reports for analytics & troubleshooting of meetings.

- Inside the Control Hub, the administrator can view live meeting diagnostics for troubleshooting and look at historical information for up to 365 days.
- Cisco has continuous development and targeted monthly updates to the analytics and troubleshooting capabilities. The feature list will be enhanced continuously, and customers should refer to the [What's New in Control Hub](#) to find the latest features and capabilities that are available.
- If Webex Device Connector is deployed, the administrator can also view device analytics for on-premises video endpoints.

### 4. Begin planning for cloud registration of all endpoints.

Review the [Collaboration Transitions documentation](#) and create a plan for transitioning endpoints to the cloud.

# References

## Webex Meetings

- Webex Meetings Suite  
<https://help.webex.com/ld-nyw95a4-CiscoWebexMeetings/Webex-Meetings>
- What are the System Requirements for Cisco Webex Video Platform?  
<https://help.webex.com/en-us/WBX83779/What-are-the-System-Requirements-for-Cisco-Webex-Video-Platform>

## Collaboration Transitions

- Collaboration Transitions Program Page  
<https://www.cisco.com/go/ct>
- Transition Map for Transitioning from On-Premises Bridging to Cisco Webex  
[https://www.cisco.com/c/dam/en/us/td/docs/solutions/PA/mcp/TDM\\_MEETING\\_S-Premises\\_Bridging\\_to\\_Webex.pdf](https://www.cisco.com/c/dam/en/us/td/docs/solutions/PA/mcp/TDM_MEETING_S-Premises_Bridging_to_Webex.pdf)

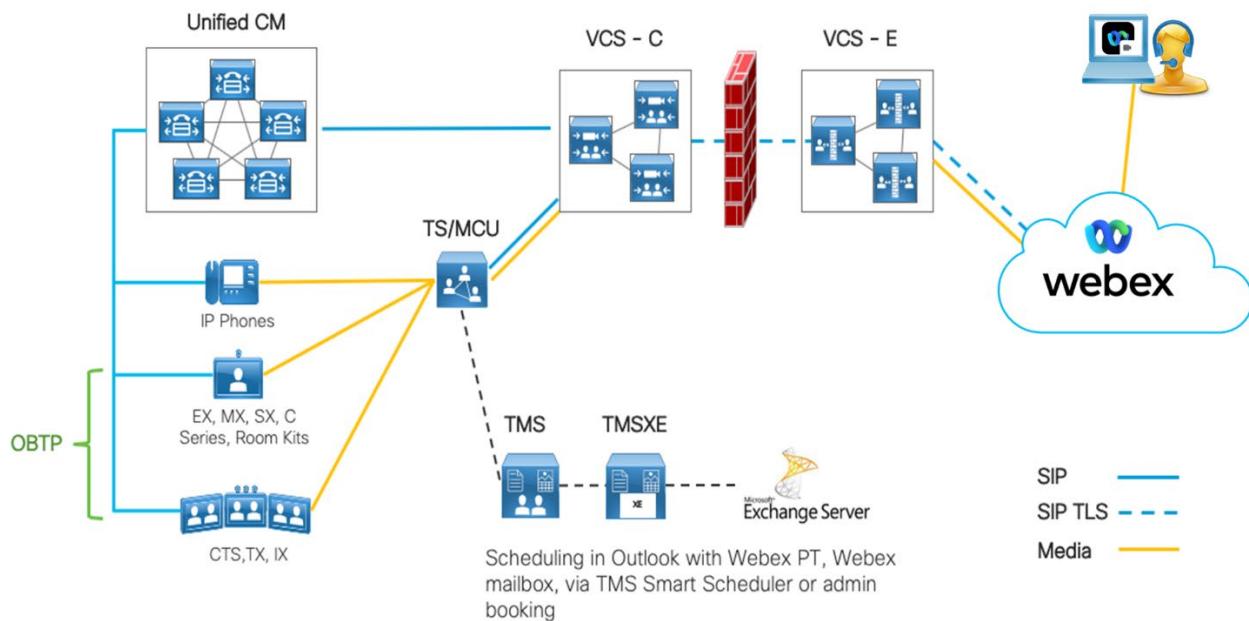
# Appendix

## Collaboration Meeting Rooms (CMR) – Hybrid

With the announcement of the [End of Sale \(EOS\)](#) of Cisco TelePresence Server (TS) in August 2017, customers will need to begin evaluating the direction of their meeting platform and strategy. This announcement also affects the CMR – Hybrid customers as the TS was part of that solution also.

As shown in Figure 5, if customers have CMR-Hybrid already deployed, then they have many of the key components of the on-premises bridging architecture described earlier like, Cisco TelePresence Management Suite (TMS), TS and Cisco Video Communication Server (VCS) for firewall traversal.

**Figure 5. Cisco Collaboration Meeting Room (CMR) – Hybrid Meetings Architecture**



In addition, these deployments already have a Webex site that connects the on-premises meeting bridge to the Webex meeting via a cascade. The existing platform

for the Webex site in this case is not compatible with the new Webex Meetings platform and will need to be upgraded along with the bridging platform. The rest of the components, TMS and its extensions along with the VCS-C and VCS-E, may still be used but should be upgraded to the latest software versions.

## Site and User Linking and Management of the Webex Meetings Site

The current Webex offering covers three elements team messaging, meetings, and calling. Those services are managed from the administration point of view from the Control Hub portal.

Control Hub is the modern management interface that allows the administrator to manage in a single place all the aspects of the service such as users, devices, services, licensing, general settings, meetings, reporting analytics, troubleshooting, as well as on-premises and cloud integrations like Directory Connector.

Most Webex sites provisioned before the introduction of the Control Hub<sup>1</sup>, circa 2015, such as the ones used by CMR Hybrid are managed by the Webex Site Admin webpage.

Site Linking allows existing Webex Meeting sites to be integrated into the new Cisco Webex platform. This integration allows the administrator to use the Webex Control Hub for management, providing customers the benefit of the enhanced analytics features as well as new troubleshooting tools as described in the [Advanced Diagnostics and Troubleshooting in Control Hub](#) document.

Furthermore, Site Linking associates one or more existing Webex Meetings sites to a Webex organization. It's important to note that Site Linking is a zero-cost upgrade and can be done in minutes without any interruption or impact on the end users and their meeting.

In addition to providing enhanced analytics, Site Linking allows the customer to link the existing user accounts to the new Webex organization. Webex linking is in fact a two-step process. The first step links the customer's Webex site and is the only step that is required if the customer just wants to use Control Hub for analytics and meeting troubleshooting.

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<sup>1</sup> The way a Webex site is managed (Control Hub v. Webex Site Admin) is chosen at site provisioning time.

The second step links the Meetings user accounts to Webex accounts. This step is only required if the customer wants an easy way to onboard Meetings users to the Webex App. The process can be done manually or automatically, and it results in the user accounts being created in the Webex organization therefore appearing in the Control Hub's users list. This allows customers to easily introduce the new persistent Webex Messaging service to existing users through the [Webex App](#), while maintaining the same login credentials.

Important considerations to note on the Webex linking process:

- Webex linking is **permanent** and cannot be undone.
- Site linking supports linking more than one Meetings site however, it's **extremely** important to ensure that the very first site linked is the default site for a majority of the users.

The [Link Webex Sites to Control Hub](#) document describes how to enable Linking.



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