



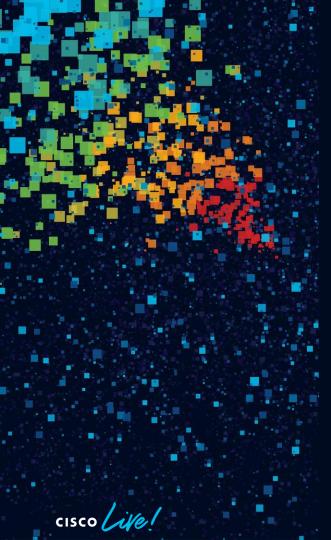
#CiscoLive

Deployment of Webex Teams in the Enterprise

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DGTL-BRKCOL-2106







Agenda

- Introduction
- Calling
- Messaging
- Meetings
- Migration and Deployment

Webex Teams – Single Unified App

All of Cisco's Collaboration capabilities delivered in a single, well-integrated solution that delivers a consistent experience so users can do their best day-to-day work across all devices.



- Enhanced messaging and integrations for existing Webex Meeting users
- Advanced meetings for existing Webex Teams messaging users
- A single-app experience for Meetings and Calling users
- Cloud managed via Webex Control Hub



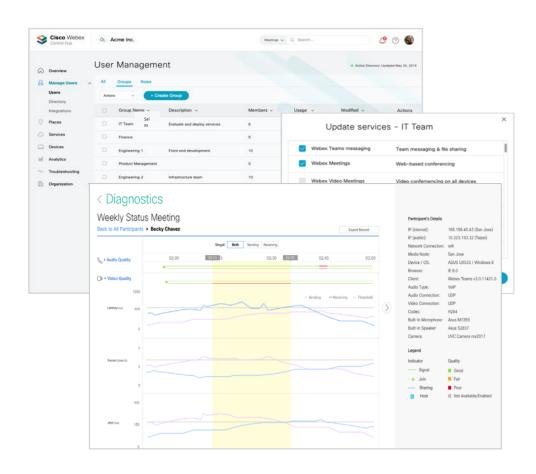






Webex Control Hub

- Single pane of glass for organization and user management
- Configure security policies and compliance settings for third party sharing options
- Advanced Analytics and Diagnostics to see detailed information for each meeting, device and participant for faster diagnostics
- Understand usage and adoption, and optimize resource usage
- https://admin.webex.com





Webex Teams – The unified app

Meetings

Full-feature Webex Meetings UX

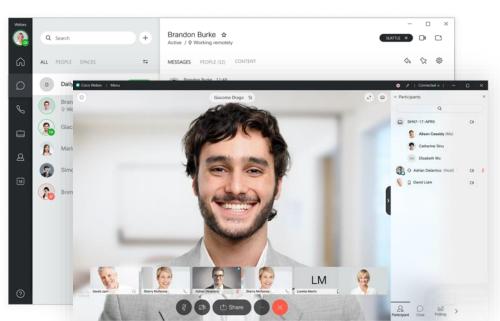
Calling

New calling capabilities such as hold / retrieve, 2nd line, IP Phone control. Supports CUCM or Webex cloud calling

Messaging

Persistent chat with new capabilities such as reactions, threading, ECM integration





Wireless Pair and Share

Pair/share wirelessly with your Cisco video devices to join your meetings or share content on screen and in-meeting

Integrations

Simplify and accelerate workflows by Integrating business applications directly into the Unified app

Centralized Management

Control Hub: single pane of glass to deploy, manage and support the Unified app

Enterprise-grade Security and Compliance

Integration with DLP; Cisco CloudLock-ready or 3rdparty CASB integration



A single unified app

A single app that can be configured to meet any end user workstyle and need*.





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Calling + Meetings

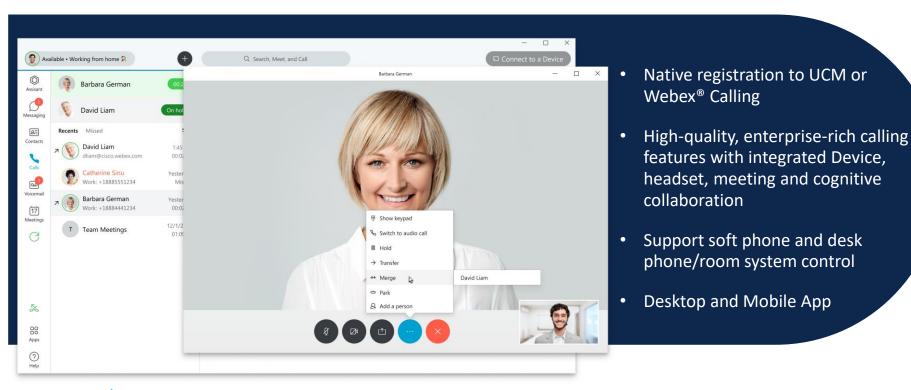
Meetings only

Calling and Messaging



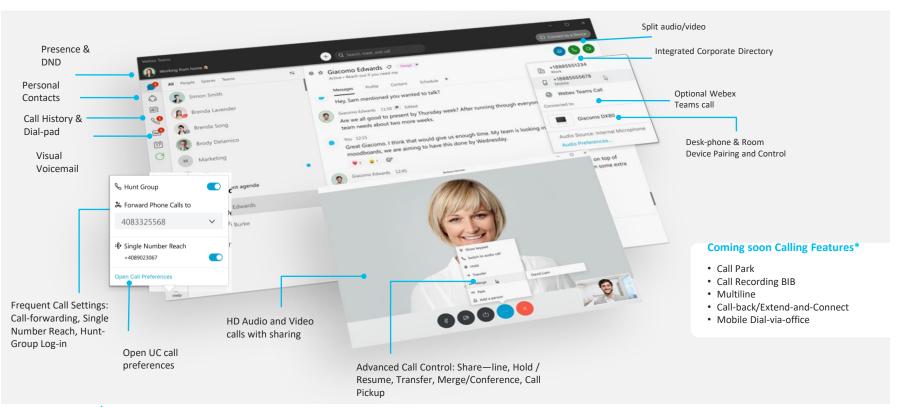


Webex Teams Calling Update



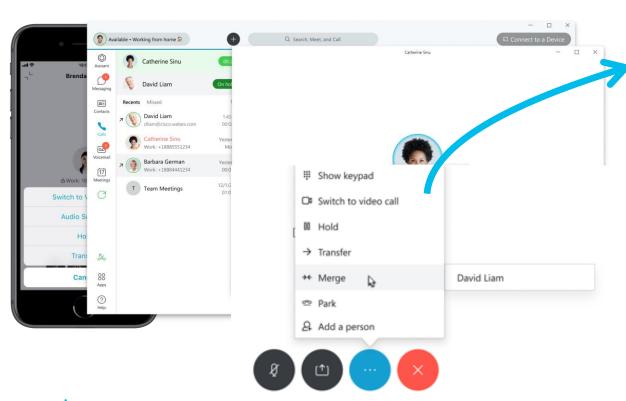


Supported Calling Features





Mid-call Control



Now Available

- Hold/Resume
- Call Waiting
- Call Transfer
- Merge & Conference
- Application Sharing
- Hunt Group (June)
- Call Pickup (June)

Roadmap:

- Call Pull
- Call Park
- Multi-lines



"Better Together" Real-time Incremental Values





- ✓ B2B2C 1:1 & Group Video Calling
- ✓ Sharing Annotation
- √ Whiteboard
- ✓ Webex Assistant
- ✓ Virtual background



Device Integration

- ✓ Integrated Webex Device & Desk-phone experience
- ✓ Proximity Pairing
- ✓ OBTP Meeting Join & 1:1 Calling
- ✓ Device Control from App





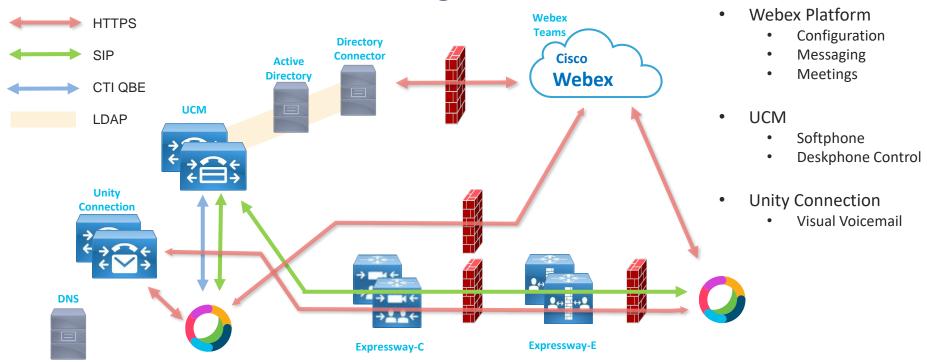
Integrated Call + Meeting

- Disaggregated Media with media on desk, share & whiteboard on App
- Common Audio/Video/Device Settings**
- Active Meeting + Call Interactions **
- Seamless call escalation to Meeting **

** Roadmap at time of recording



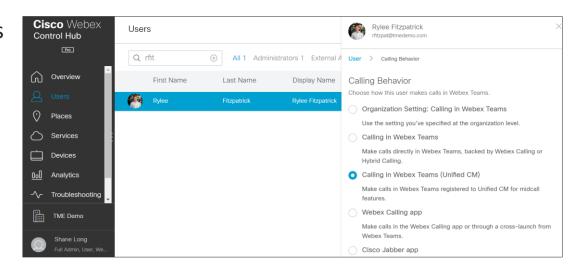
Webex Teams UCM Calling Architecture





Configuration – Webex Control Hub

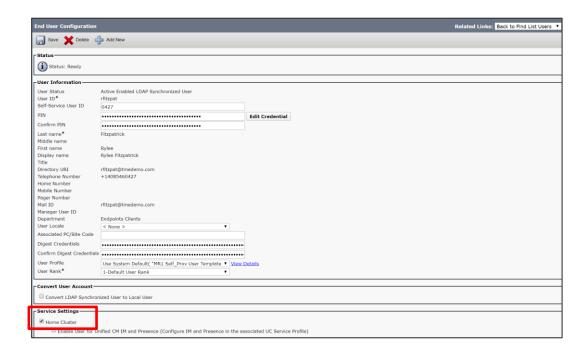
- Webex Teams ALWAYS makes its initial connection to the Webex Service
- UCM Calling enablement via Control Hub
- SSO enablement of Webex Org is highly recommended!
- Bulk enablement via CSV Enablement based on attribute coming soon





Configuration - UCM

- UCM configuration is based on Jabber UCM configuration
 - User Account
 - Home Cluster Setting
 - Device Config
- jabber-config.xml file not used
- CTI/Voicemail Profile is obtained from UCM Service Profile
- SSO enablement of UCM is highly recommended – via the same IDP!



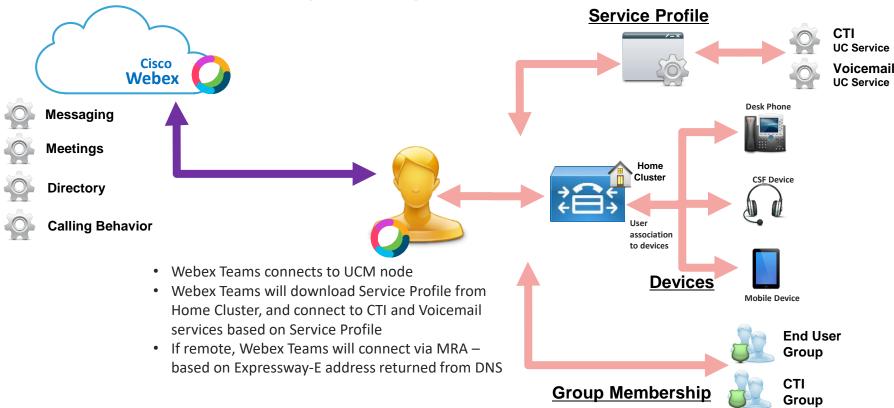


Webex Teams Calling Configuration Architecture





Webex Teams Calling Configuration Architecture



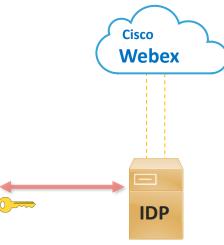






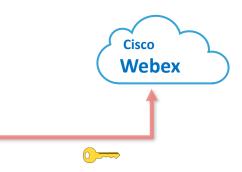
- Primary Connection is always to Webex Service
- rfitzpat@tmedemo.com used to find Webex Teams org





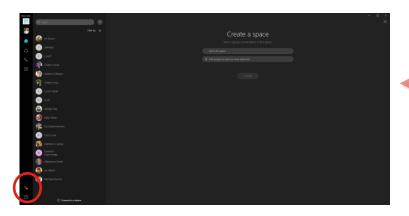
- Webex Teams Org is SSO enabled.
 Webex Teams displays embedded browser redirected to the IDP
- User authenticates and receives SAML assertion





 Webex Teams sends SAML assertion to Webex Service. Webex grants Webex Teams Access



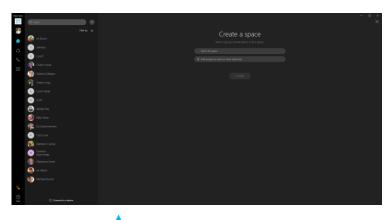


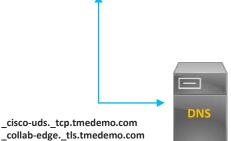


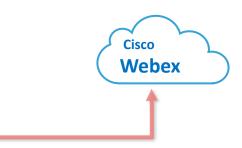
 Webex Teams connects to conversation service and downloads configuration (including "Calling Behaviour" setting)



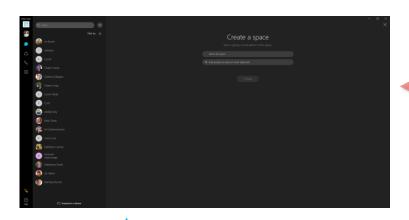
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- Webex Teams initiates UCM discovery
- 2 DNS SRV queries are sent
 - Edge Detection
 - Service Address
- Internal DNS Server: cisco-uds -> UCM A record
- External DNS Server:
 _collab-edge -> Expressway-E A record
- Domain used for DNS discovery is tmedemo.com (rfitzpat@tmedemo.com)



DNS



- Webex Teams initiates UCM discovery
- 2 DNS SRV queries are sent
 - Edge Detection
 - Service Address
- Internal DNS Server:

_cisco-uds -> UCM A record

External DNS Server:

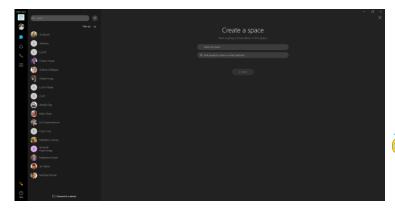
_collab-edge -> Expressway-E A record

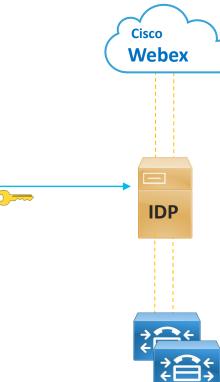
Domain used for DNS discovery is tmedemo.com (rfitzpat@tmedemo.com)



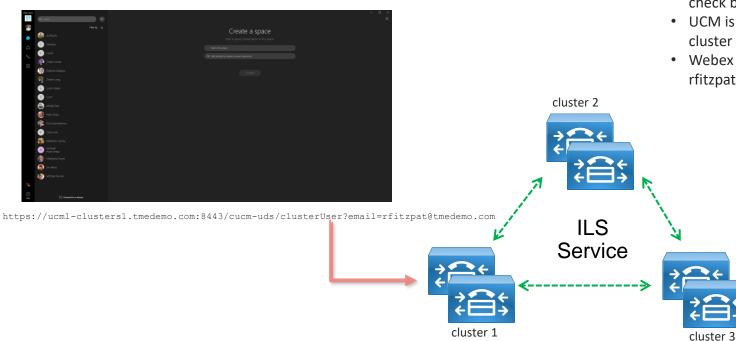


_cisco-uds._tcp.tmedemo.com _collab-edge._tls.tmedemo.com



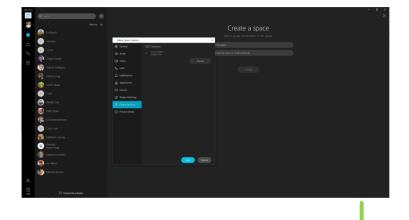


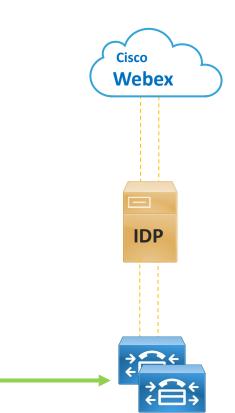
- Webex Teams connects to the UCM node returned from DNS (or expressway-e if outside the corporate network)
- Webex Teams uses existing SAML assertion to gain access to UCM – without SSO the user would have a secondary login



- Webex Teams performs home cluster discovery (Home Cluster check box!)
- UCM is aware of any users home cluster for the entire ILS cluster
- Webex Teams is redirected to rfitzpat's home cluster

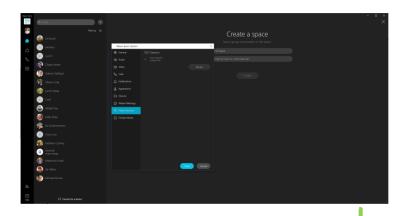






- Webex Teams performs SIP registration against node as per UC Manager Group preferences
- Appropriate device type must be configured
 - Desktop: CSFTablet: TAB
 - iPhone: TCT
 - Android Phone: BOT

Authentication



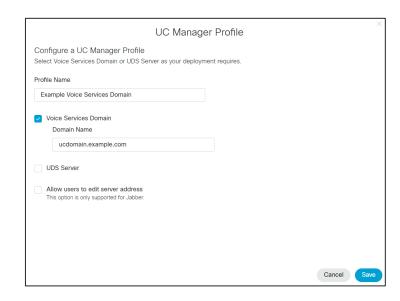
- If UCM is not enabled for Single Sign On
 - User must manually sign in via Phone Service menu
- It is highly recommended to SSO enable UCM





Voice Services Domain

- By default, Webex Teams will send DNS SRV queries based on the Webex Teams Domain
- If the Webex Teams domain does not match. the Voice Services Domain, the Voice Services Domain can be set via Webex Control Hub, and associated with specific users
- Option for enduser to set Voice Services Domain if discovery unsuccessful and domain not configured in Control Hub

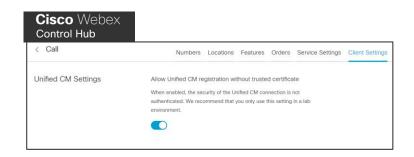




Certificate Validation



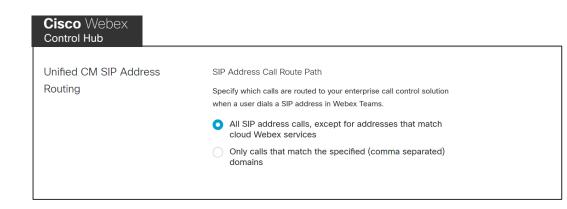
- Webex Teams validates certificates presented to it from all services.
- Webex Teams will not allow a user to accept an invalid certificate
- Recommendation: Ensure UCM Tomcat and Expressway-E certificates are valid/trusted
- Optional setting in Control Hub to allow Webex Teams to ignore invalid UCM certificate and proceed with connection





SIP Address Routing

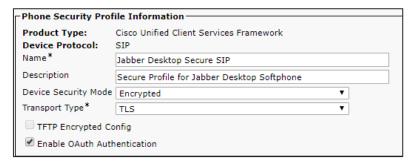
- Webex Control Hub provides an option to define how SIP URI calls are routed from Webex Teams
- All....
 - All SIP URI calls will be routed via UCM except
 *.webex.com
- Only calls...
 - Specify a list of domain names SIP URIs dialled based on these domains will be routed via UCM
- All DNs/E.164 numbers dialled in Webex Teams will be routed via UCM

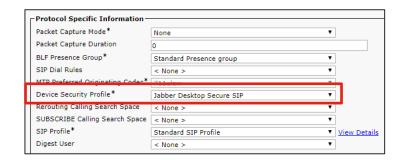




Secure SIP and RTP

- Webex Teams supports secure SIP/RTP via SIP Oauth CTL file (CAPF enrollment) not supported – UCM 12.5 required
- OAuth Refresh Tokens must be enabled
- From the UC Manager CLI run the following command utils sipOAuth-mode enable
- System > Security > Phone Security Profile

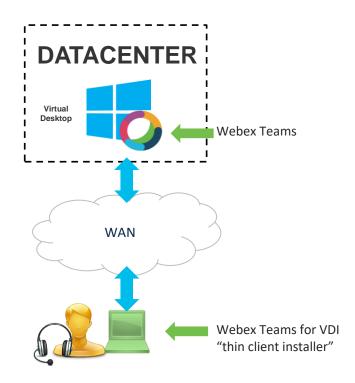




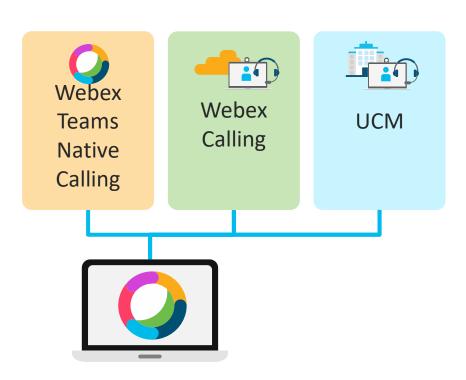


Webex Teams VDI Support

- Webex Teams is supported in VDI based environments
 - Citrix
 - VMware
- Real time traffic needs to be treated differently in VDI
 - Webex Teams VDI component to terminate media – "Webex Teams for VDI"
 - Installed on local endpoint (thin client)
 - Range of thin clients supported including Windows, Ubuntu, IGEL, HP ThinPro and Unicon eLux



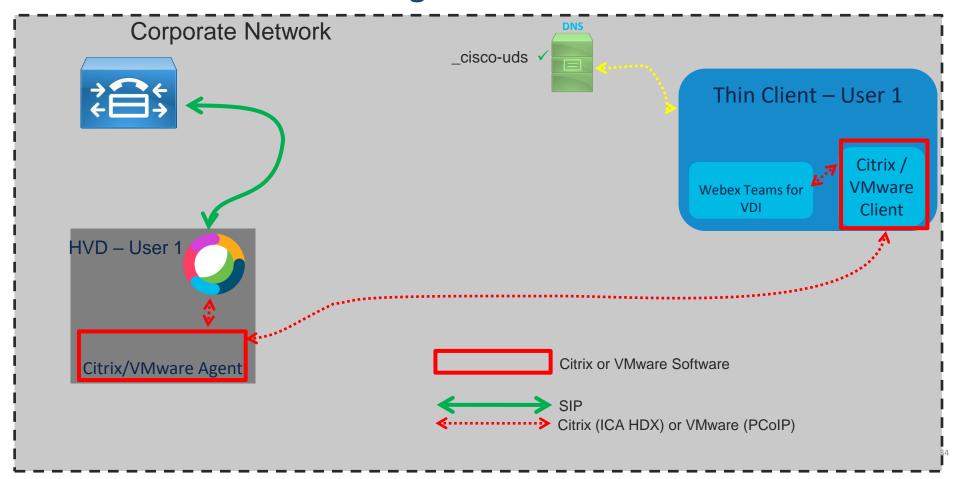
Webex Teams for VDI



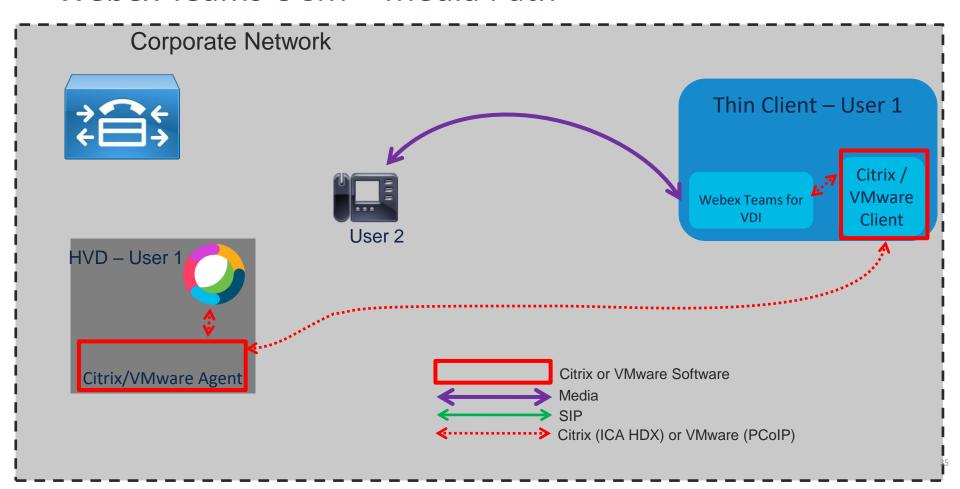
- Webex Teams provides choice re calling platform
 - Native Calling (space calling)
 - Webex Calling
 - Webex Teams UCM Calling
- Webex Teams is supported in VDI for each calling platform
 - Note different calling architectures based on platform
 - Single Webex Teams for VDI client for all platforms
- Note: for deskphone control mode only deployments – Webex Teams for VDI client is not required



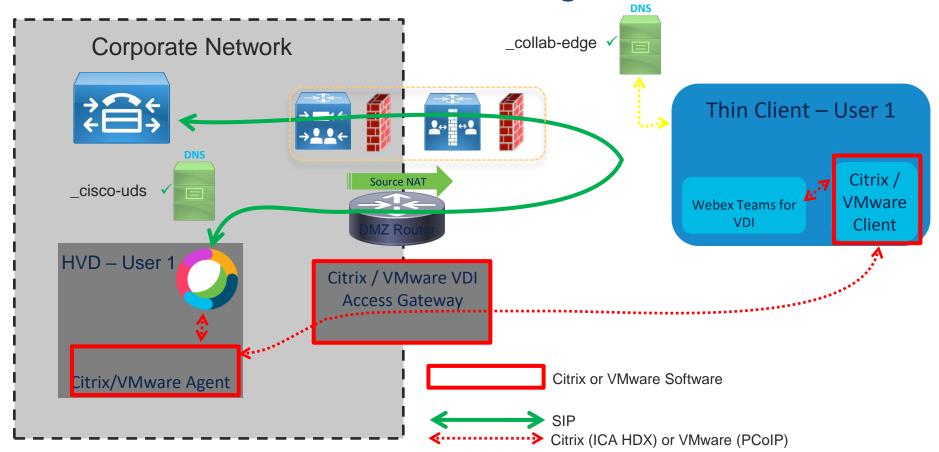
Webex Teams UCM - Registration



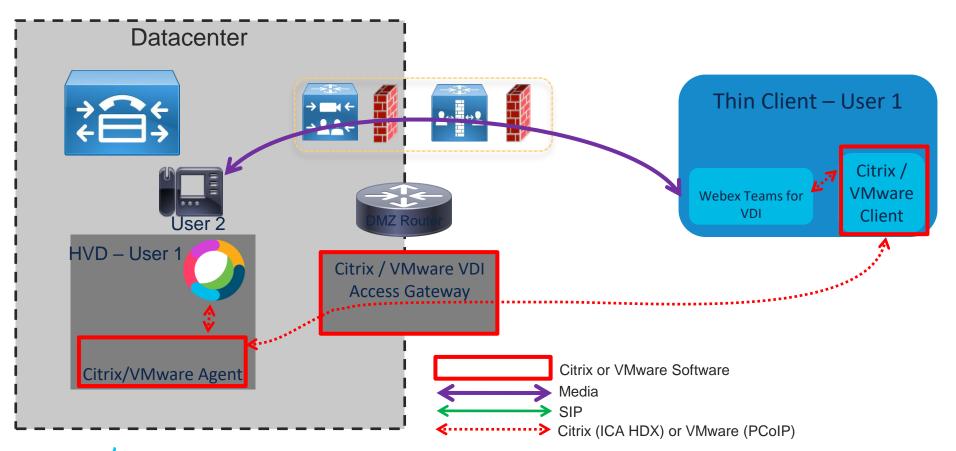
Webex Teams UCM – Media Path



Webex Teams UCM over MRA - Registration

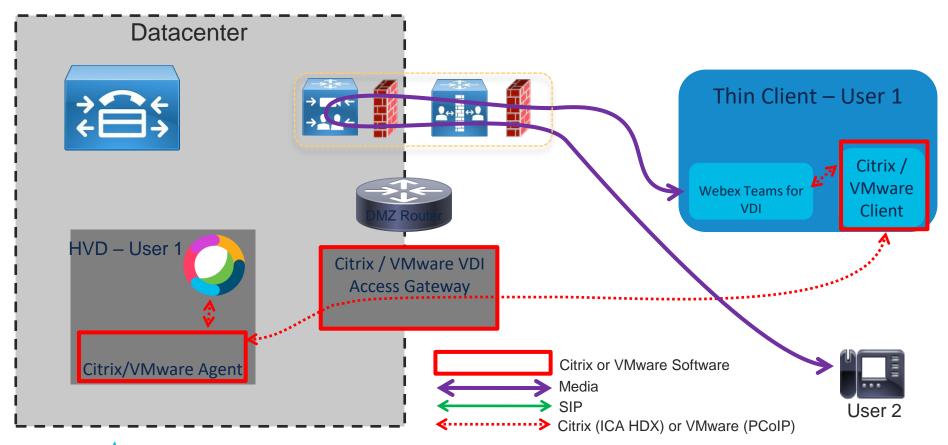


Webex Teams UCM over MRA – Media Path



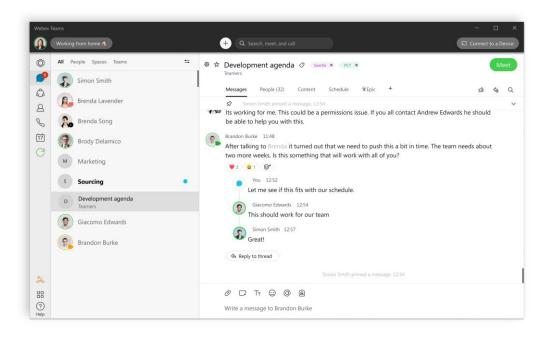


Webex Teams UCM over MRA – Media Path





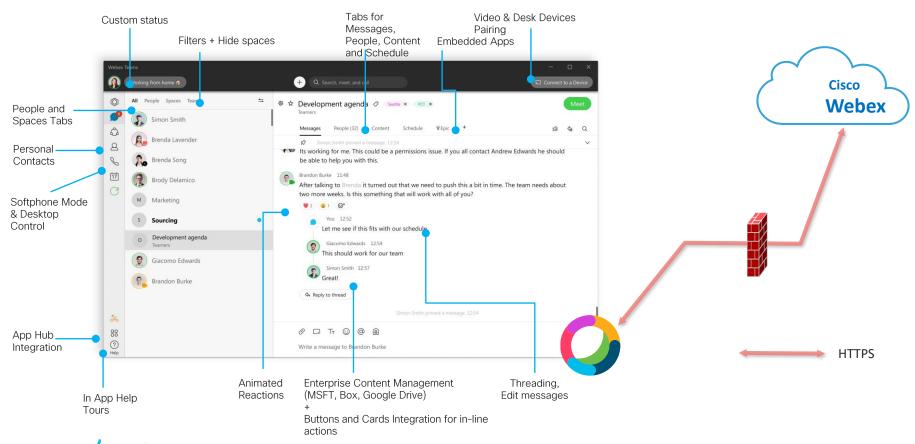
Messaging



- Fluid design with guided tours for quick ease of use and workflow adoption
- Organize your spaces and content for better manageability and to suit your workstyle
- Communicate easily to your team, online and offline with custom status, reactions, replies and gifs
- Collaborate with anyone, both inside and outside your company with:
 - Adding external parties directly to spaces
 - Federating with other XMPP applications
- Integrate with your business workflows with 3rd party apps



Messaging Features



Webex Teams: Enterprise Content Management

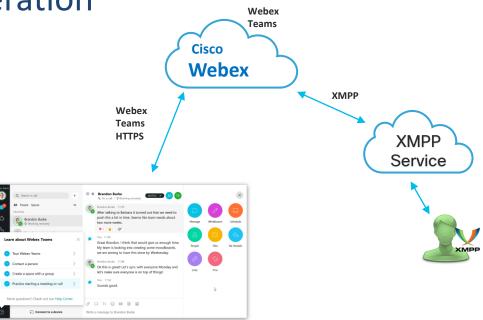
Allows organisations to replace Webex Teams File storage with their own content management system, through an optimised integration or a custom API





Webex Teams XMPP Federation

- The Webex Teams platform offers support for inter-domain XMPP federation
- Allows 1:1 messaging with users on other messaging platforms
 - Presence is not propagated to or from XMPP partners
- Direct federation or federation via intermediary messaging interop clearing house available
 - Direct to native XMPP platforms e.g. Cisco UCM IM&P
 - Via 3rd party messaging interop services





Enabling XMPP Federation for Webex Teams

 Configure the following DNS SRV record for your Webex Teams domain. Point the SRV records to the applicable A record, depending on which Webex Teams cluster you are using

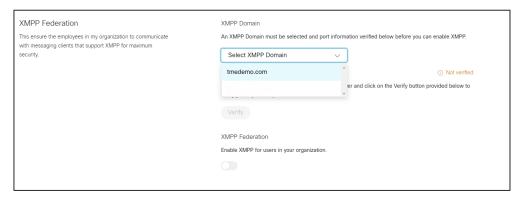
Cluster	SRV	A Record	Port
Europe Cluster	_xmpp-servertcp.domain.com	wx2i-k.wbx2.com	5269
US Cluster		wx2i-a.wbx2.com	

Test that the DNS record is discoverable
 e.g. The DNS SRV Record for XMPP Federation
 for Webex org tmedemo.com is correctly pointing
 to the UC Cluster Webex Teams federation service



Enabling XMPP Federation for Webex Teams

- 3. Once the DNS SRV record is correctly created, XMPP Federation can be enabled in Webex Control Hub.
 - Services > Message Settings > XMPP Federation
 - Select your domain from the drop down list and click Verify. The platform will quickly test that the DNS SRV record is discoverable and correct.



4. Once the record is verified, toggle XMPP Federation on for your org

https://help.webex.com/en-us/05i99o/XMPP-Federation-for-Webex-Teams#id 129897



External Messaging Allow List

- · Webex Teams supports Allow Listing of domains for external messaging
- By default, external messaging is enabled to all domains. By implementing Allow List, all non Allow listed domains are essentially blocked from a messaging perspective
- Allow listing is configured in Webex Control Hub
 - Settings > External Communication
 - Toggle Block external messaging to On
 - Add domains you want to allow external messaging to
 - the whitelist

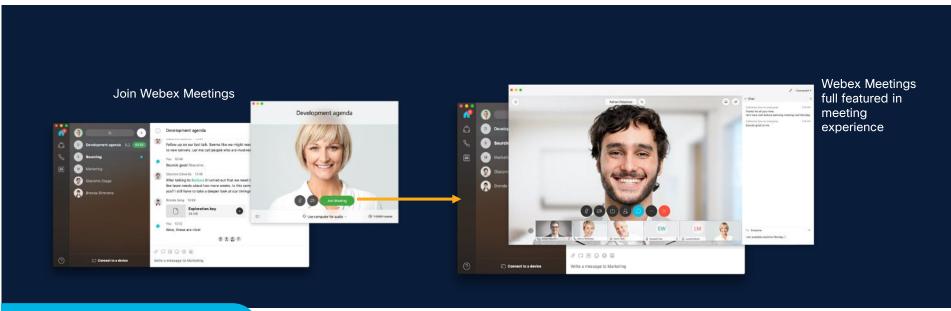


NOTE: Allow List will apply to both XMPP Federated Partners as well as Webex Teams inter org messaging





Webex Meetings Module in Teams



What's New:

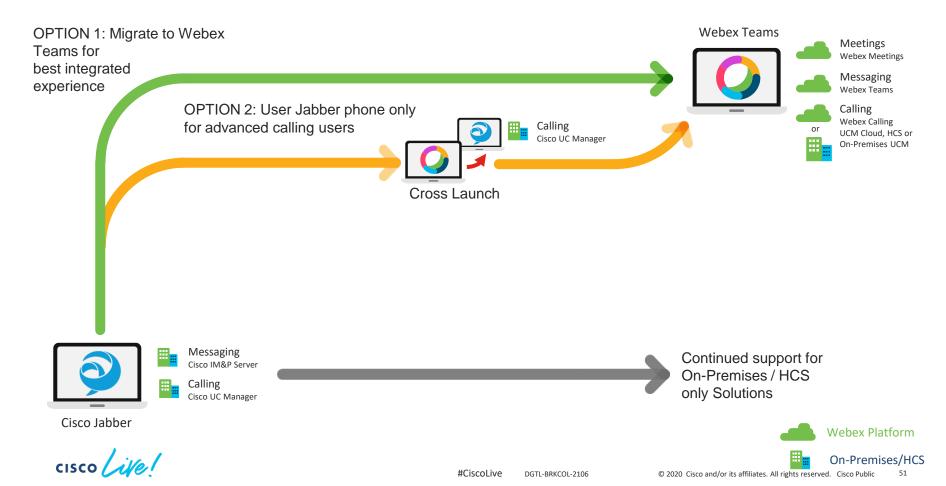
Pop-out to Webex in-meeting Experience from Webex Teams BY REQUEST ONLY





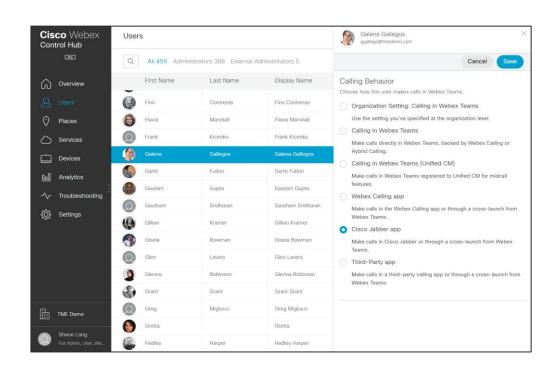


The Journey from Jabber to Webex Teams



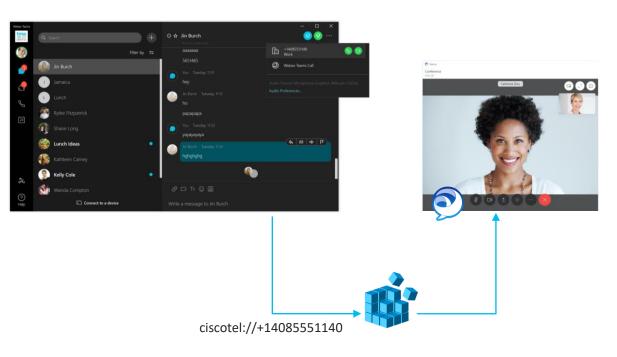
Cisco Jabber Calling

- Optional configuration for organisations who want to maintain calling in another application (e.g. Cisco Jabber running in Phone Only Mode)
 - Recommended for Contact Center users until all CC features delivered natively in Webex Teams
- Ability to cross launch Jabber from Webex Teams when making a call





Cisco Jabber Calling



- Jabber registers to "ciscotel" protocol handler at installation time
- Webex Teams will call "ciscotel" protocol handler and pass the telephone number
- The OS will pass the number to Jabber. Jabber makes the call (via UCM)

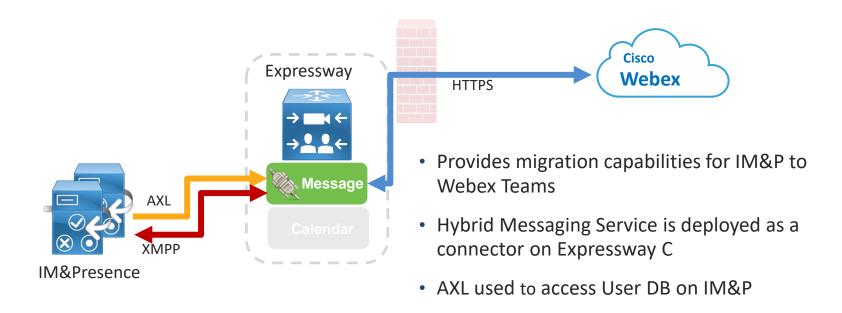
Cisco Jabber Calling

The following configuration steps are recommended when enabling Cross Launch of Jabber

Jabber Recommendation	Jabber Config	
Disable Proximity	<enableproximity>false</enableproximity>	
Disable Calendar Integration	<calendarintegrationtype>0</calendarintegrationtype> <maccalendarintegrationtype>0</maccalendarintegrationtype> <enablecalendarintegration>false</enablecalendarintegration>	
Disable Meetings Integration	<meetings_enabled>false</meetings_enabled>	
Disable Cisco Headset Integration	<blockaccessoriesmanagerplugins>CiscoHIDPlugin.dll</blockaccessoriesmanagerplugins>	
Set Do Not show Docked window	<dockedwindowvisible>false</dockedwindowvisible>	
Set Start client when OS boot up	<start_client_on_start_os>true</start_client_on_start_os>	
Enable SIP URI Dialing	<enablesipuridialling>true</enablesipuridialling>	



Hybrid Messaging Service





Hybrid Messaging Capabilities



1:1 Messaging between Jabber and Webex Teams



Presence Mapping: Teams Presence will be mapped into Jabber presence



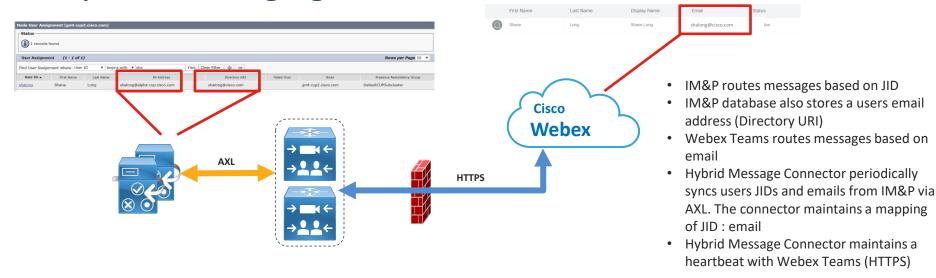
Notifications: Message, Message Read, "is Typing", Missed Messages (in Teams), Message deleted



File transfer: Not supported. (Teams user can post file, Jabber will receive notification to get file in teams web client)

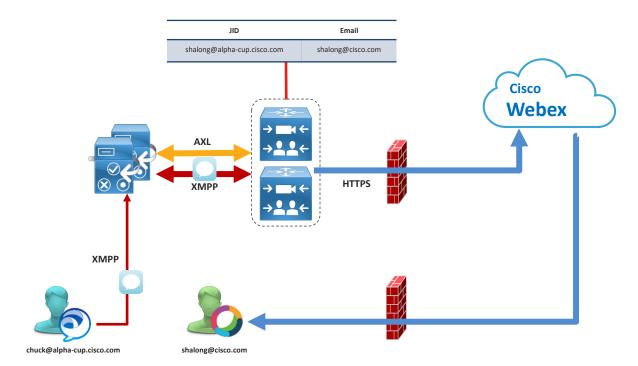


Hybrid Messaging Architecture





Hybrid Messaging Architecture



- Chuck sends a message from Jabber to:shalong@alpha-cup.cisco.com
- Message routed to Expressway via XMPP
- Hybrid Messaging Connector maps JID to **Email**
- Hybrid Messaging Connector routes message to Webex Teams Service to:shalong@cisco.com
- Webex Teams Service routes message to user shalong@cisco.com

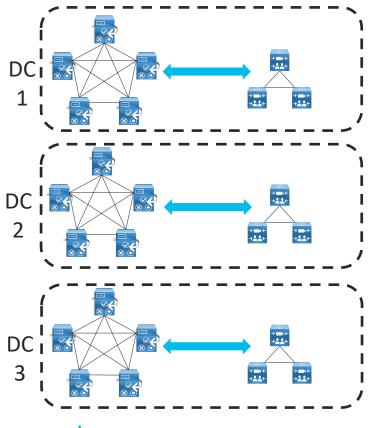


Hybrid Messaging Considerations

- Hybrid Messaging is a tool to assist migrations
- Users must exist in BOTH IM&P and Webex Teams to support Hybrid Messaging
- If a user is active in Jabber and Webex Teams simultaneously, they will receive messages in both applications
- For large IM&P based deployments, consider migrating to Centralised IM&P before enabling Hybrid Messaging

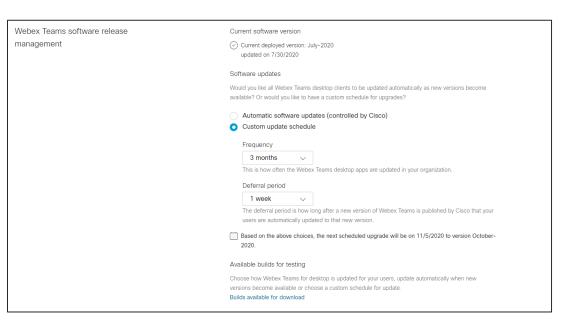


Multi Cluster Deployment Scenario



- Centralize IM&P clusters as much as possible!
- For multiple IM&P cluster based deployments, it is recommended to deploy an Expressway cluster running Hybrid Messaging Connector for each IM&P cluster
- Failover will be within the cluster

Webex Teams Release Management



- Webex Teams provides for an automatic software update capability
- Control Hub provides capability to set update schedule
 - 1 month or 3 month update schedule
- Admin can download the app directly from Control Hub and distribute with enterprise deployment tools if preferred



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Summary

- All of Cisco's Collaboration capabilities delivered in a single, well-integrated solution that delivers a consistent experience so users can do their best day-to-day work across all devices.
- Flexible Deployment models
 - Modularity to meet your organisations needs
 - Re use your investment in UC Manager or Webex Calling









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