cisco Live!







Deploying the Webex App to Your Organization

Part 2

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BRKCOL-2198b



Cisco Webex App

Questions?

Use Cisco Webex App to chat with the speaker after the session

How

- 1 Find this session in the Cisco Live Mobile App
- 2 Click "Join the Discussion"
- 3 Install the Webex App or go directly to the Webex space
- 4 Enter messages/questions in the Webex space

Webex spaces will be moderated by the speaker until June 17, 2022.



https://ciscolive.ciscoevents.com/ciscolivebot/#BRKCOL-2198b



Agenda - This session is split over 2 parts

Part 1: BRKCOL-2198a

- Webex Architecture
- User Management and Identity
- Group Templates
- Meetings Service
- Messaging Service
- App Deployment
- App Integrations

Part 2: BRKCOL-2198b

- Calling Service
- Webex in VDI
- Security
- Modularity
- Microsoft Integration



Calling



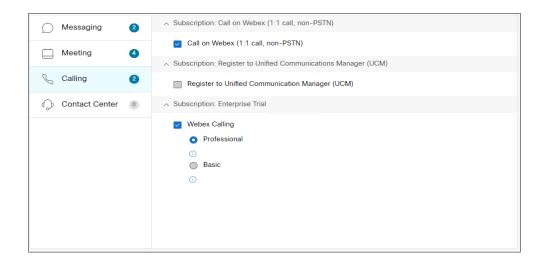
Webex App Calling



- Webex provides a number of different calling options that can be deployed to meet difference customer needs.
- Calling experience is defined via user licensing
 - NEW: Unified CM "Calling Behaviour" is now defined in the license
- Call on Webex
 - Basic and free 1:1 in-app calling service
 - On by default
- Add Enterprise Calling to the Webex App. Choose between
 - Unified CM Calling
 - Webex Calling



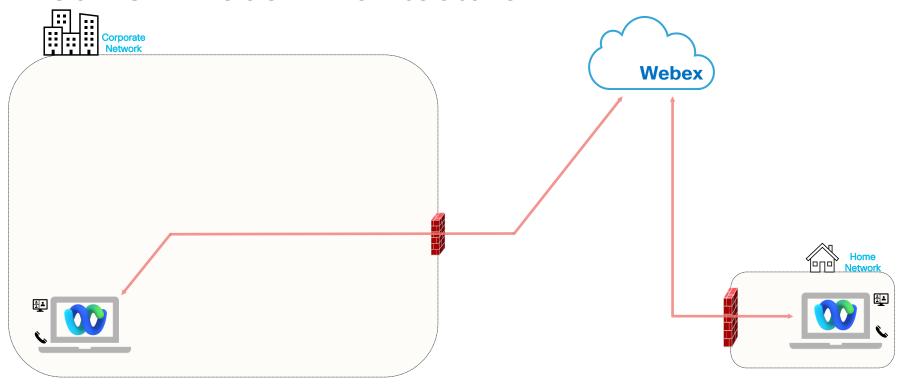
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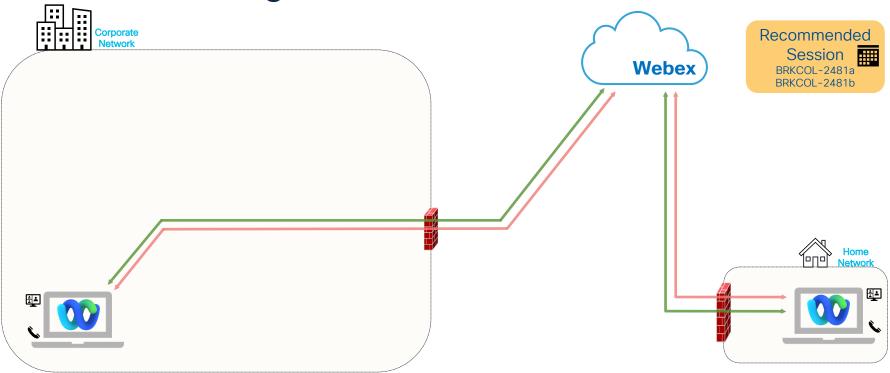
Call On Webex Architecture



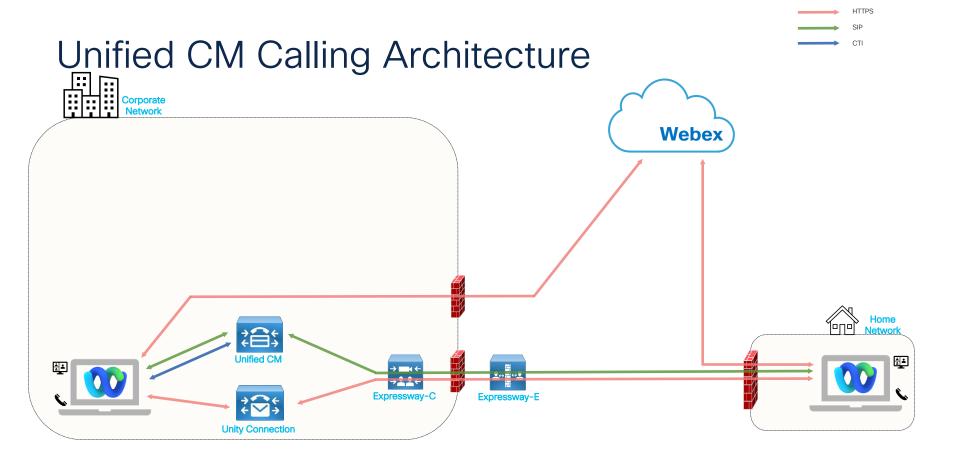




Webex Calling Architecture

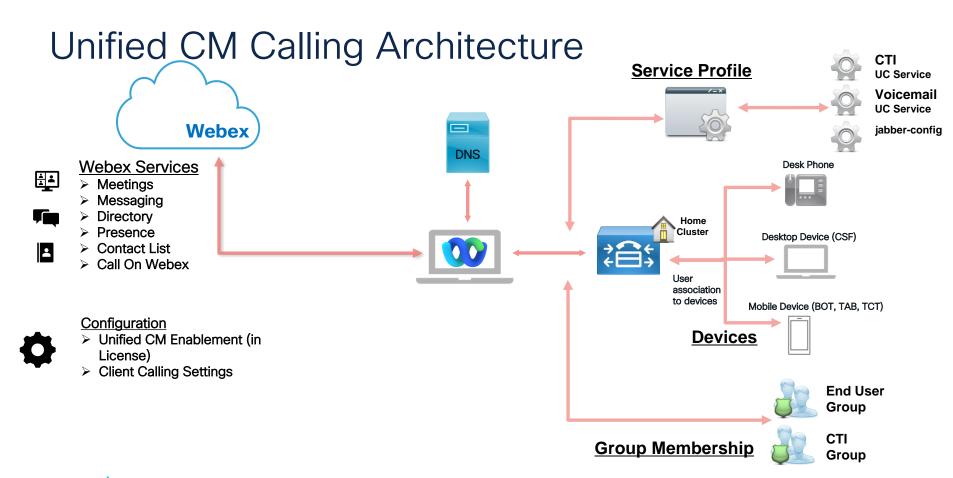






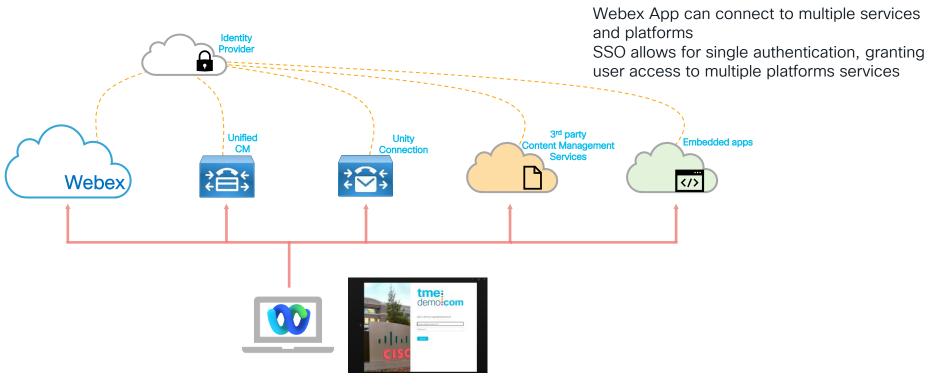


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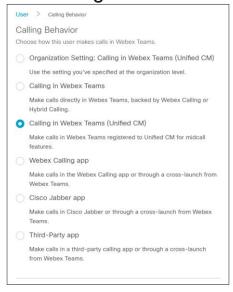
Single Sign On with Unified CM Calling

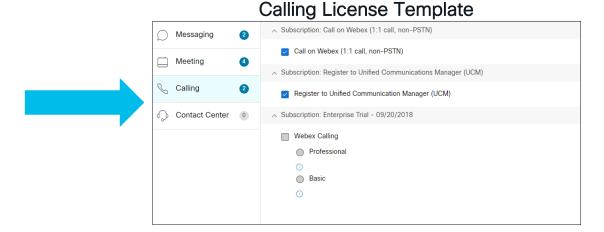




Unified CM Calling Setting has moved to Calling License

Calling Behavior







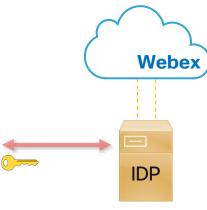




- Webex App first time start
- User enters email address
 - chopkins@tmedemo.com
- Webex App connects to Webex login service







- Webex Org is SSO enabled.
- Webex app enters SSO mode
 - Embedded browser displayed
 - Embedded browser connects to the IDP
- User authenticates
- IDP issues SAML assertion

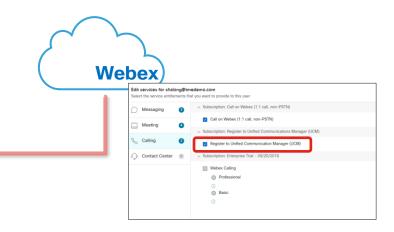






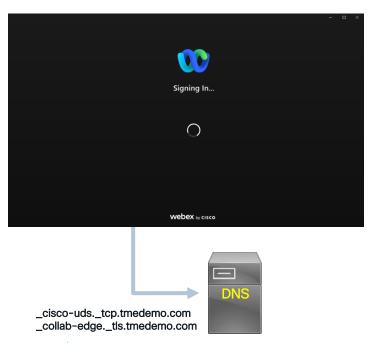
- Webex App uses SAML assertion to authenticate to Webex service
- Webex grants Webex app Access (issues OAuth tokens)





- Webex App retrieves user config including licensing
- Webex App connects to applicable cloud services
- Webex App retrieves calling setting "Register to Unified Communication Manager (UCM)"







- Webex App queries DNS
 _cisco-uds._tcp.tmedemo.com
 - _collab-edge._tls tmedemo.com
- Internal DNS Server: cisco-uds -> UCM A record
- External DNS Server:
 _collab-edge -> Expressway-E A record

Voice Services Domain = tmedemo.com

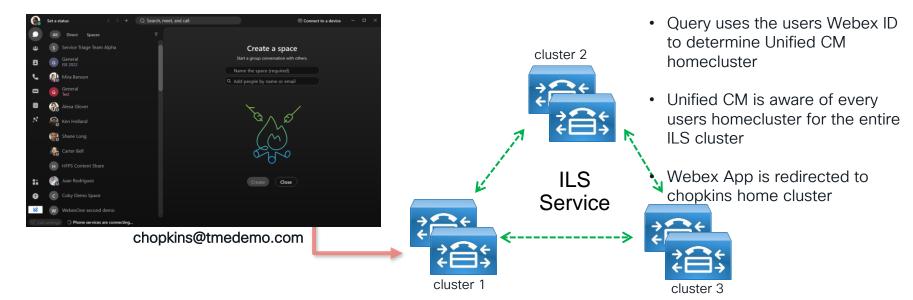
If the Unified CM domain is different to the Webex domain, additional Voice Services Domains can be configured (per user/org) in Control Hub

Webex App queries for

query

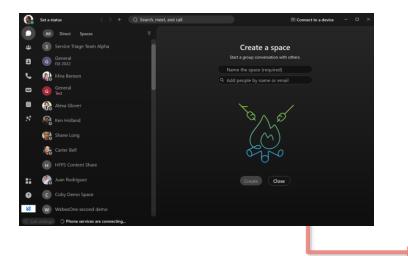
homecluster against the Unified CM node returned from DNS

Unified CM Discovery





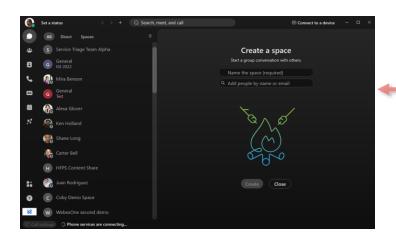
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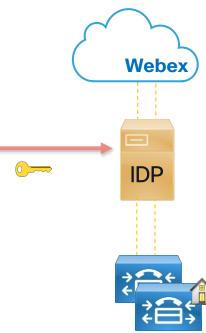


- Webex App connects to homecluster publisher node
- Unified CM challenges for authentication



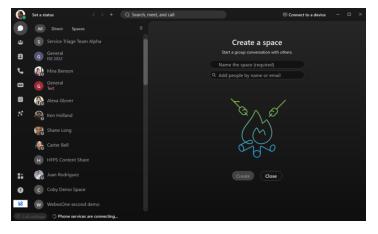
Homecluster Publisher

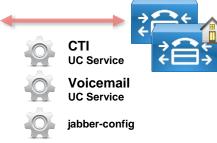




- Homecluster is SSO enabled
- Webex App uses the existing SAML token to gain access to Unified CM without the need for the user to manually authenticate
- Without SSO the user would have a secondary login requirement



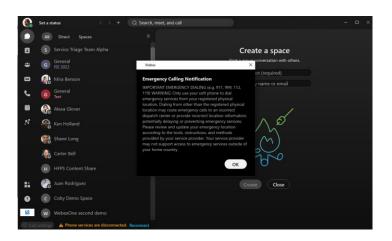




- Webex App downloads Service Profiles and jabber-config
- Webex App connects to available services
 - SIP/CTI
 - Voicemail



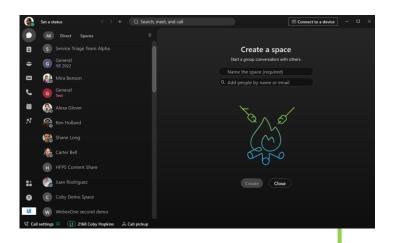
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- User is prompted to accept **Emergency Calling Notification** Message before they can make a call
- By default the prompt is shown on first login only, but the admin can change this to never or every login
- The Emergency Notification message is customizable



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



Unified CM Discovery Best Practices

Voice Services Domain

• Keep it simple – try to use the Webex/email domain as the Voice Services Domain. Remember, the _cisco-uds and _collab-edge SRV domains, do not need to be the same as the Unified CM/Expressway domains

Certificate Validation

Webex App will validate a TLS certificate from each Expressway/Unified CM/Unity Connection node it connects to.
 Ensure that the certificates installed on each of these services is trusted i.e. CA signed

Webex and Unified CM User Identity

Webex App will use the users Webex identity as the Unified user identity (userID or email). Ensure that the Unified CM
email attribute is populated for each user (with the email address matching the Webex identity)

Authentication

• SSO enable both the Webex Org and Expressway/Unified CM/Unity Connection (using the same IDP!). Without this, users will have multiple login prompts when signing into the app. For Webex App on mobile deployments, ensure Unified CM is 12.5(1)su4 and later, Expressway X14 and later (SSO redirect URI)

Unified CM OAuth Refresh Token Flow

- Enable OAuth Refresh token flow on Unified CM. User will not need to reauthenticate to Unified CM for defined period of token (default = 60 days). Allows admin to enable secure SIP calling (SIP OAuth)
- See https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cloudCollaboration/wbxt/ucmcalling/unified-cm-wbx-teams-deployment-guide.pdf



Subsequent Logins



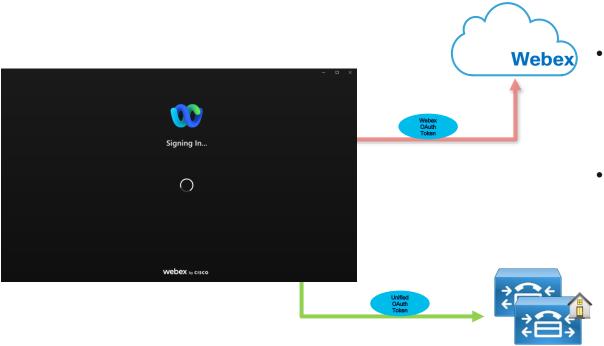


- The first time Webex App login is a serial login
 - 1. Connect to Webex
 - 2. Connect to Unified CM
- After the first time login, Webex App connects to services in parallel (based on cached config)





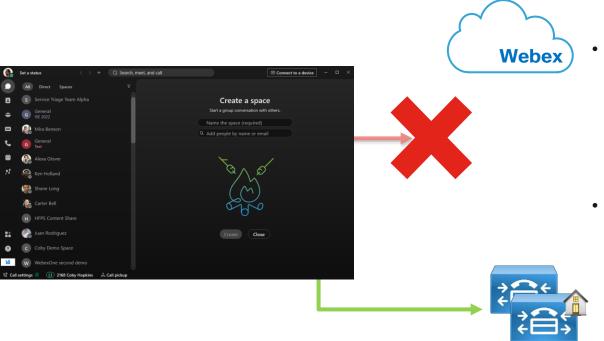
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Calling Redundancy



- If Webex services are inaccessible (e.g. WAN outage, loss of internet access), Webex App will still be able to register to on premise Unified CM for calling
- Features dependent on Webex services will be unavailable e.g. presence, directory search (previous directory lookups will be cached locally)

Jabber to Webex App Migration





Feature parity

Webex App

reached feature parity with Cisco Jabber for most knowledge workers

		(Unified CM)	Cisco Jabber
Messaging	IM-only Share Remote Desktop Control (Mouse & Keyboard)	☑ ☑ (via Call on Webex)	<u> </u>
Device	Desk-phone Control	\square	Ø
Calling	HD Video & Audio Softphone Contacts (Corporate, Personal, Local Search)	☑	\overline{\overline{\sigma}}
	In-a-call Presence, DND	☑ (Clients only)	☑ (All Devices)
	Hold/Resume, Consultative Transfer, Conference		\square
	Call History Voicemail (Visual & MWI & Call VM)	☑ ☑	\ \ \
	Hunt Group Call Pickup Call Park	고 고 고	\(\bar{\text{\tint}\xi}\\ \text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\texi{\text{\texi\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tin}\text{\text{\text{\text{\text{\text{\text{\text{\text{\ti}\text{\text{\text{\text{\text{\text{\text{\text{\tin}\tint{\text{\tert{\text{\texi}}\tint{\text{\text{\text{\tin}}\tint{\text{\text{\text{\text{\text{\text{\text{\texi}\text{\text{\texi}\tint{\tex{\texit{\texit{\texi}\text{\texit{\texi}\tint{\text{\texi}\tint{\texitint{\texit{\texi}\text{\texit{\texi}\tint{\texitit{\texi}\t
	Extend & Connect & Dial-via Office In-Call Sharing	<u> </u>	I
	Call Recording Multi-Line	☑	☑
	Emergency Calling Behavior, Disclaimer		\square
	ICE Media Optimization Far End Camera Control	☑	☑
	3 rd Party Headset Control CTI-Control by Other Application	☑ Window + Mac	☑ Windows
	Enterprise Contact Center (UCCE/X)	☑	∀
	Support	_	



Virtual Desktop Integration (VDI)

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Recommended Session

Jabber to Webex App Migration



Contact center features

Webex App

supports advanced calling features for Contact Center environments (UCCE and UCCX)

- Make/receive call
- Hold/resume
- Transfer
- Conference
- DTMF
- Recording (BIB)
- Multi-line
- Silent monitoring
- Call notification control for admin

- Call windows control for user and admin
- Zip tone for auto pickup
- Whisper Announcement
- cBarge
- Agent greeting



Jabber to Webex App Migration



Incremental features

Webex App delivers many more new calling and meetings features comparing to Cisco Jabber

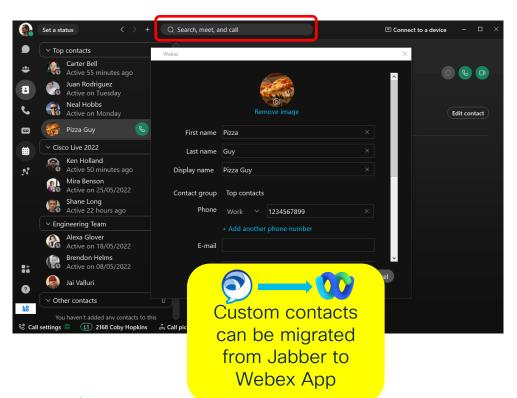
- Group chat escalation to a meeting
- Wireless share & whiteboard with cloud devices
- Proximity pair with Joining Meeting and 1:1 calling
- Seamless move between device and Webex app
- Seamless call handover between networks
- B2B2C app-to-app calling with annotation and whiteboard
- App share with desk-phone control
- Move call to meeting

- Blur, virtual & custom background
- Noise removal and music mode
- Cisco headset management / control
- Quick call window (coming)
- E911RedSky native support (coming)
- Auto device provisioning (coming)

... and many more to come!



Contacts and Search



- Users can add Webex contacts and Custom contacts to their personal contact list
- Webex Contacts
 - A Webex user
- Custom Contacts
 - A user who does not have a Webex account. User can add a number of attributes including 4 phone numbers
 - The custom contact is private to the user who adds
- Users can search for Webex for Webex users. Webex contacts and Custom contacts in the search bar
- Users can also search for org Webex devices and allowed bots using the search bar



Introducing Org Contacts



Webex Identity service

Provisioned by control hub, directory connector etc



Webex Contacts

Contact Management



Platform Contacts

Device/service contacts















Contacts

NEW Org

Contacts







Users that have been provisioned in Webex service



Video devices and phones that have been provisioned in Webex service



Webex Bots

Interactive Chat bots created in Webex



User created and viewable contacts. held in Webex available across clients.

Admin created custom contacts. stored in Webex. searchable by all users in the organization Add up to 200,000 org contacts per org

Org Contacts

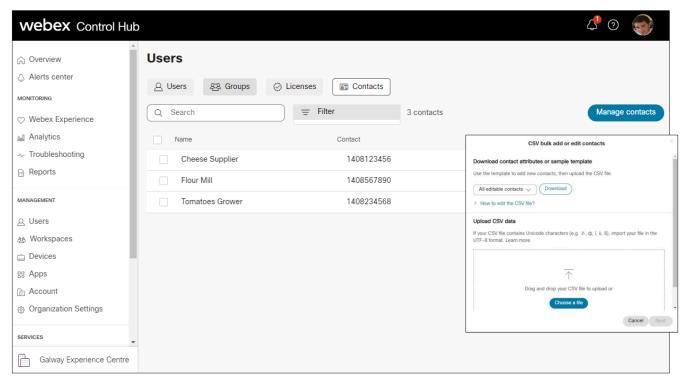
Local Contacts

Platform specific contacts

- IOS/Android contacts
- Outlook contacts
- Mac Contacts
- Device favourites



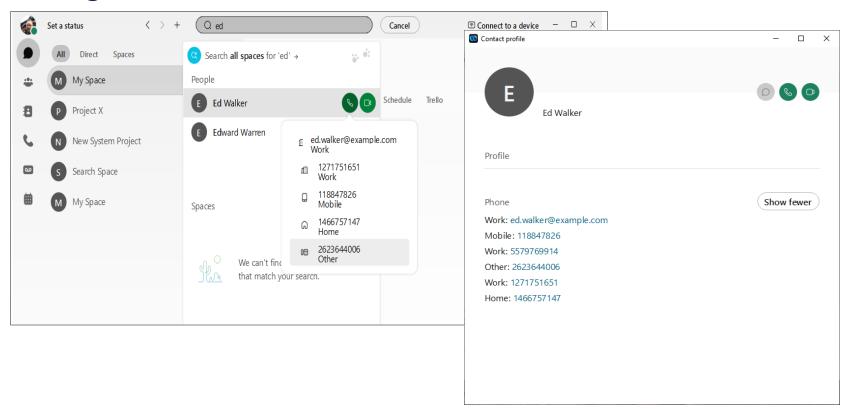
Populating Org Contacts



- New Contacts section in Users tab
- Manage Org contacts via CSV file
- Org contacts can have many attributes
 - Display Name
 - Up to 5 phone numbers per contact
 - Fmail
 - Address
- Org Contacts sync via CCUC is also available



Org Contacts



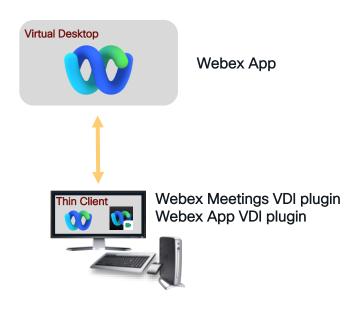


Webex App for VDI



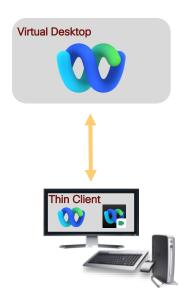
Webex App for VDI

- Webex App can be deployed in a VDI environment
- In VDI, real time media workloads need special consideration
- Webex utilizes local plugins to offload real time media termination
- Webex Meetings VDI plugin
 - Webex Meetings
- Webex App VDI plugin
 - Call on Webex
 - Webex Calling
 - Unified CM Calling





Supported Deployments



Supported Virtualization Services

Citrix Virtual Desktops

Citrix Virtual Apps

VMware Horizon

VMware Cloud

Azure Virtual Desktop (meetings not supported)

Supported Thin Clients

Windows / Windows Embedded

MacOS

Ubuntu

Unicon eLux

HP Thin Pro

IGEL OS

Dell Wyse ThinOS

10ZiG Thin Clients

Stratodesk No Touch OS



Getting Prepared for Deployment





available on DellOS

website

Stratodesk IoTouchOS: Will be Download Webex App installer and VDI plugins from webex.com Install the plug-in on all thin client computers

Download the Cisco Webex Meetings virtual desktop plug-in on each of the thin clients. Consult with your IT administrator for installation assistance.

• Windows 10 x86 or x64

Download

• Mac OS

Download

• Linux Ubuntu x64

Download

• Linux Ubuntu x64

Download

• Linux eLux 6.5 x64

Download

• HP ThinPro OS7.x x64

Download

Supported platforms

Virtualization platforms

Virtualization platform - Cibix receiver (Windows orly) and workspace app with Citrix XenDesktop version 7.15 or later.

- VirMarar client version: 5.0, 5.1, 5.2

Download Webex Meetings VDI plugin from meetings site

https://sitename.webex.com/webappng/sites/sitename/dashboard/download

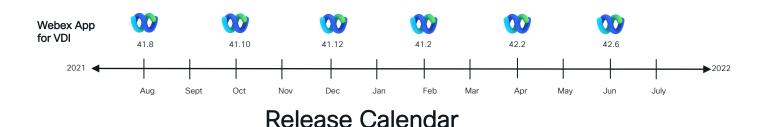
https://www.webex.com/downloads/teams-vdi.html

MacOS Installe

with MC VDI plugin



Webex App for VDI Install and Update



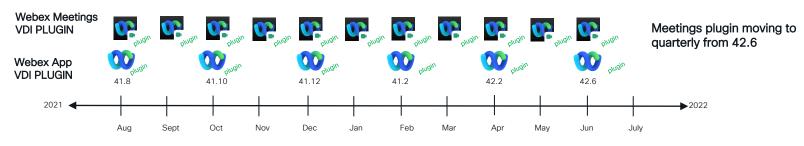
Installation: msiexec /i webex.msi ALLUSERS=1 ENABLEVDI=2 AUTOUPGRADEENABLED=1 ROAMINGENABLED=1 /quiet

Switch	Purpose
ALLUSERS=1	Admin install to "Program Files"
ENABLEVDI=1	Webex App will auto detect VDI environment
AUTOUPGRADEENABLED=1	Webex App in VDI will auto update every 2 months
ROAMINGENABLED=1	User config/cache is stored AppData\Roaming (for non persistent VDI session)

For other installer options see https://tinyurl.com/wbxvdi



Webex App VDI and Webex Meetings VDI Plugins



Release Calendar

Webex App on VDI is backward compatible with

- Webex App VDI Plugin N-3 (6 months)
- Webex Meetings VDI Plugin N-4 (4 months) (moving to N-8 post 42.6)
- Webex App VDI Plugin can be enabled for auto upgrade (Windows and Mac thin clients only). Webex App will download plugin updates and send to Thin Client via virtual channel
- On the VDI (where Webex App is installed) set the registry key
 - HKEY_LOCAL_MACHINE\SOFTWARE\Cisco Spark Native\
 - AutoUpgradeVDIPluginEnabled=1 (DWORD)
- Webex Meetings VDI Plugin must be kept up to date manually

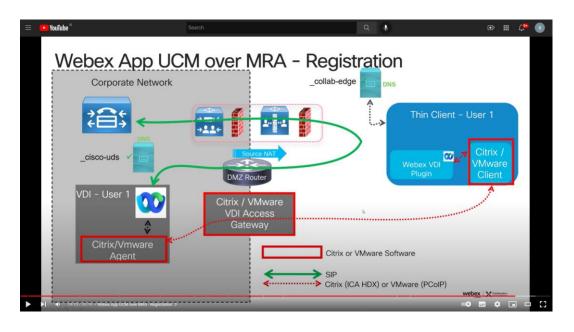


Installation of VDI plugins:
Plugins can be installed
individually or via the bundled
installer

Webex VDI Call Flows

- Check out the Webex App VDI media flows overview
 - Webex Meetings
 - Call on Webex
 - Webex Calling
 - Unified CM Calling

 Call flow slides added to end of this deck ©



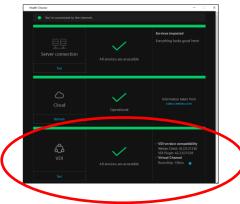
https://www.youtube.com/watch?v=UF_A8X5tZdQ



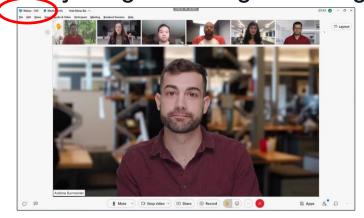
Verifying Webex VDI

Webex VDI configuration can be verified in the app





When joining a meeting or making a call

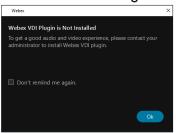




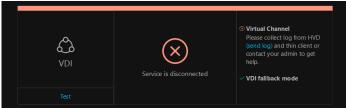
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VDI Fallback Mode

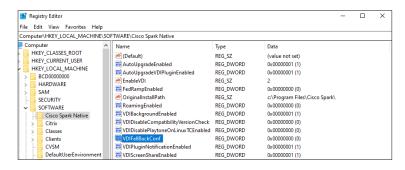
User notified at login



Health Check displays error



- If Webex VDI is broken (e.g. plugins not installed),
 Webex App in VDI will run in VDI fallback mode
- Fallback mode allows the user continue to join meeting and make calls, but in unoptimized mode
 - Media terminated on VDI
 - Media flows through display protocol
 - May result in poor audio/video experience
- Admin can control Fallback mode experience (via VDI registry)
 - E.g. disable video, disable screen sharing etc

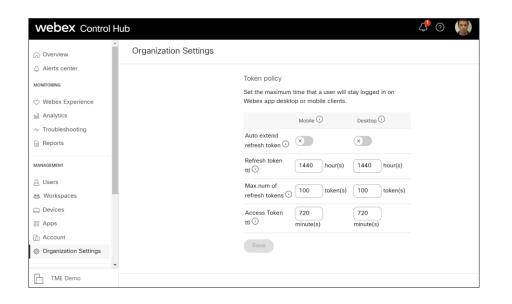




Security



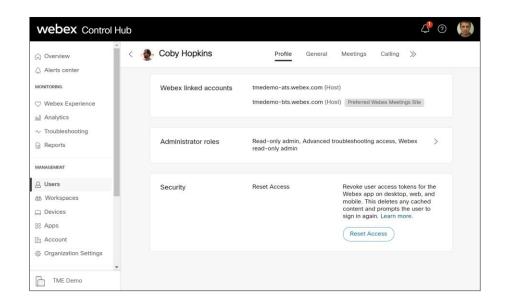
Webex OAuth Token Management



- Webex service will issue the Webex App an OAuth Refresh token at login
- The Refresh token is stored securely on the device and used each time the App needs to fetch a new Access token
- Once the Refresh token expires, the user will need to re-authenticate
- Consider what settings work best for your environment
 - NOTE: Auto extend In the past, this was set to on.
- Default Webex Refresh token = 60 days.
 Consider the Unified CM default Refresh token setting (60 days)



Revoking Access



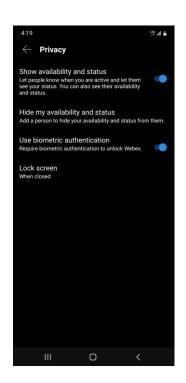
- Control Hub admin can revoke a users access via Reset Access
- Revoking Access can take up to 6 hours (ttl of the Access token)
- Once access is revoked the user will have to reauthenticate to access the Webex App

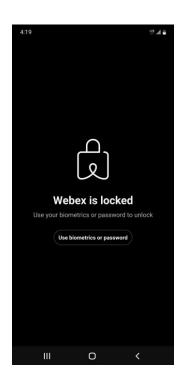
Ensure that users have a screen lock





Biometric Protection on Webex App for Mobile





- Users can enable an extra layer of security on their Webex for mobile app
- Biometric authentication setting forces the user to authenticate via Face ID or Fingerprint Unlock each time they launch the Webex App on iOS/Android
- The mobile device must support Face ID/Fingerprint Unlock



Service Entitlement (Modularity)

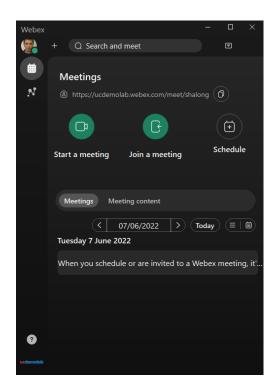


Service Entitlement



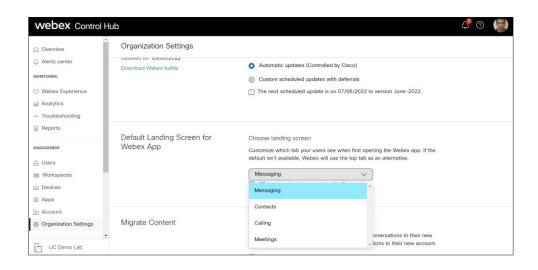


- Services can be unchecked in the license (Per org, group, user)
- e.g. To deploy a Meetings ONLY configuration, remove messaging service and calling service
- **BFWARFI**
 - Removing messaging will also remove space meeting functionality (e.g. scheduling)
 - Users existing messages/files will be retained as per your orgs retention policy

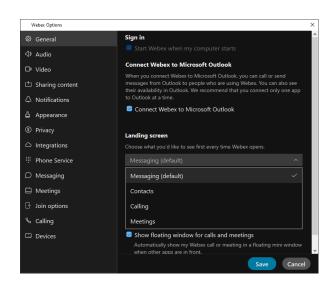




Default Landing Screen



Control Hub Admin can choose the default landing screen Admin can also allow/deny the user from changing the default screen in the app



User can set their preferred default landing screen (if allowed by admin)



Microsoft Teams Integration



Bringing the power of Webex to Microsoft Teams

- Enable Microsoft Teams users for Webex Calling and Meetings
- Without having to switch apps or interrupting your workflow, you can seamlessly launch Webex calls and meetings
- Desktop and Mobile

Calling Integration

- Initiate Webex App based calling via the Microsoft Teams interface
- Maintain existing Cisco calling infrastructure. Webex Calling or Unified CM.
- Softphone Mode/Deskphone Control Mode

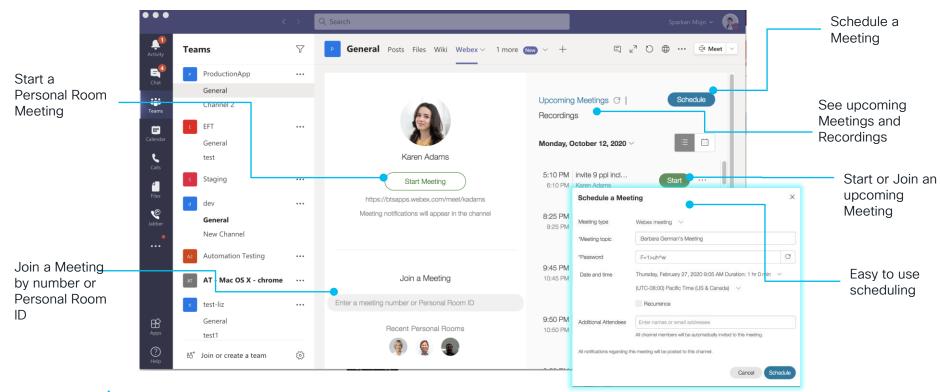
Meetings Integration

- Schedule, start and join Webex Meetings via the Microsoft Teams interface
- Webex Calendar and Recordings
- Real Time Notifications





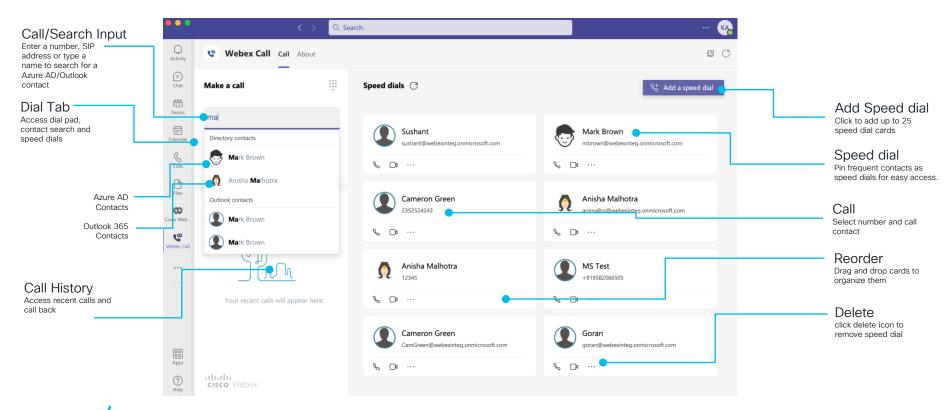
Cisco Webex Meetings Tab for Microsoft Teams





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Cisco Webex Call Tab for Microsoft Teams





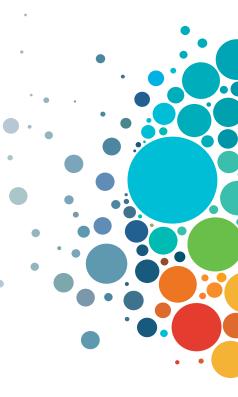
Microsoft Teams Integrations Roadmap

Calling	Meetings
 Call History (Webex Calling & BroadWorks) Presence in real-time (Webex Calling & BroadWorks) Voice Mail (Webex Calling & BroadWorks) Re-designed Landing Page Call Tab Support in Mobile Dark Mode Multiple Calls Handling Presence in real-time (UCM) Call History (UCM) Voice Mail (Webex Calling & BroadWorks) Voice Mail (UCM) IL5 for Government 	 Global Deployment and Configuration (no Bot installation required) Schedule function for hybrid MS Exchange customers Presence for Members in Channel Native Webex Meetings Launch (within MS Teams) Calendar free/busy IL5 for Government



Technical Session Surveys

- Attendees who fill out a minimum of four session surveys and the overall event survey will get Cisco Live branded socks!
- Attendees will also earn 100 points in the Cisco Live Game for every survey completed.
- These points help you get on the leaderboard and increase your chances of winning daily and grand prizes.



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Thank you





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