# Let's go cisco live! #CiscoLive



# Best Practices for Migration

From Jabber to the Webex App

Steven Fly, Technical Marketing Engineer Leader BRKCOL-2062



### Cisco Webex App

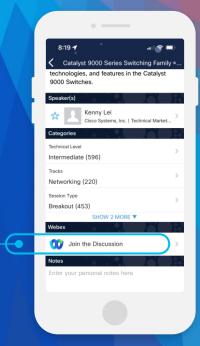
### Questions?

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

### How

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

Webex spaces will be moderated by the speaker until June 9, 2023.



https://ciscolive.ciscoevents.com/ciscolivebot/#BRKCOL-2062



# Collaboration

Collaboration Migration to the Cloud

Learning Map



### BRKCOL-2047

Journey to Cloud and Open Platform. Webex Edge for Devices together with Microsoft and Google. The art of the possible!



#### BRKCOL-2198

Deploying the Webex App to your Organization



#### BRKCOL-2063

Get your UC and Webex environments cloud ready and jump start your transition to Webex Calling



#### BRKCOL-2265

Enabling Intelligent Workplaces for Hybrid Working



### IBOCOL-2010

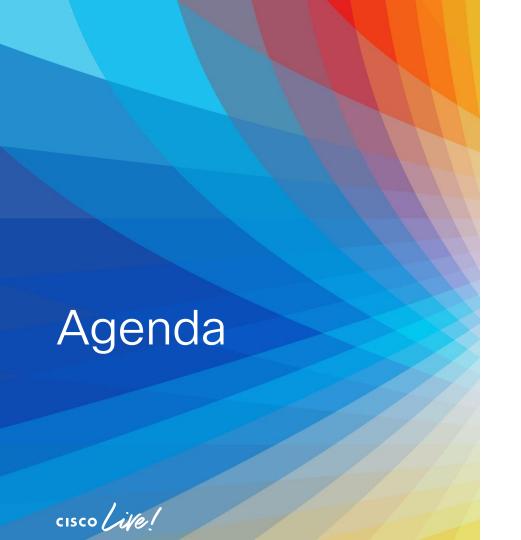
Cloud Connected UC: The Bridge to Migrate Your On-Premises Solution to Webex Calling



### BRKCOL-2062

Best Practices for a Successful Migration from Jabber to the Webex App





- Migration Journeys
- Migration Readiness
- Migration of Jabber Workloads
- Control Hub Tools
- Migration Best Practices
  - Pre-Migration
  - Migration Prep & Migration
- Conclusion

### Icon Guidelines

The following icons are used to indicate the Collaboration workloads, deployments and apps referenced throughout this presentation



# Migration Journeys



### Jabber to Webex App

### **UCM Calling**

Org is enabled for "Full-Featured Meeting Experience" Mobile devices still require Webex Meetings App, Events (classic) still requires WDA

\* Note: Other journeys are possible

Workload(s)	Migrating Fron	n Migrating To	Migration Complete (Webex App used for)
Calling + Messaging + Meetings	+ webex	CUCM	<ul> <li>UCM Calling</li> <li>Webex Messaging</li> <li>Webex Meetings<sup>1</sup></li> </ul>
Calling + Messaging	CUCM + IM&P	CUCM webe	<ul><li>UCM Calling</li><li>Webex Messaging</li></ul>
Calling + Meetings	+ webex	CUCM	<ul> <li>UCM Calling</li> <li>Webex Meetings<sup>1</sup></li> </ul>
Calling	CUCM	CUCM	UCM Calling
Meetings	webex	webex	• Webex Meetings <sup>1</sup>



### Recommend a 3-Phase Approach

### Migration Ready

### **Pre-Migration**

Prepare Webex Org and UC environment for migration, setup base org functionality, and verify access to Webex services

- Webex Org setup
- Licensing, User Provisioning
- Enable analytics
- Network readiness
- Software upgrades

### Migration Prep

Define/Configure workload services, app deployment plan and develop migration plan/schedule

- Messaging, meeting, calling services & features
- UCM user/contact extraction
- Users, Client versions
- Integration requirements
- Planning & Testing
- PoC/Pilot

### Migration

Migration of users, apps & devices and decommission of on-prem servers

- End user adoption & training
- Migration communication
- Migrate users, apps & contacts
- Decommission existing onpremise UC infrastructure



# Migration Readiness



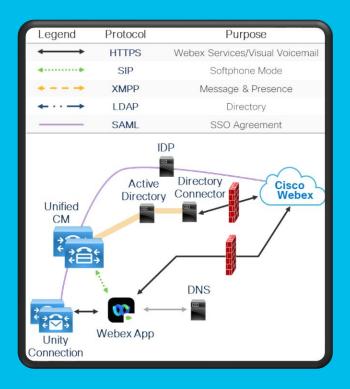
### What does "Migration Ready" Mean?

- Understand architecture and platform changes
- Review Pre-Migration activities
- Complete Pre-Migration activities:
  - ALL required activities
  - Any recommended/optional activities to meet your requirements

Become Migration Ready NOW!
Don't wait until you start your migration project



### Architecture Changes



- Network Requirements
- User Login Experience
- Components or Services
  - Authentication Services
  - Directory Services
  - IM&P Servers
  - Etc.
- User Provisioning & Management
  - Registration, Call Control, Configuration, Software
- Voice Service Discover (UCM Calling)
- New or Changed Call/Traffic Flows
- New Clients



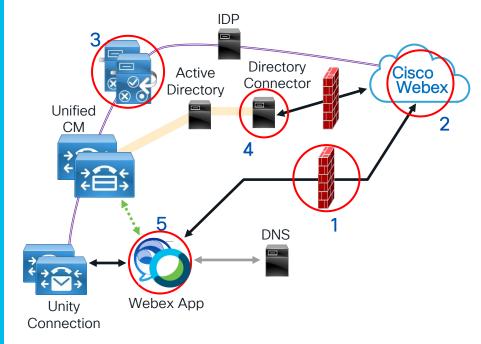


# Architecture Changes Webex App with UCM Calling

- 1. New Internet requirements
- 2. Control plane moves to Webex
- 3. Messaging moves from IM&P to Webex
- 4. Directory Services synched to Webex
- 5. Single client (Webex App for Calling, Meetings, Messaging)



Legend	Protocol	Purpose
<b>←</b>	HTTPS	Webex Services/Visual Voicemail
<b>4</b>	SIP	Softphone Mode
<b>←</b> − − →	XMPP	Message & Presence
$\leftarrow \cdots \longrightarrow$	LDAP	Directory
	SAML	SSO Agreement



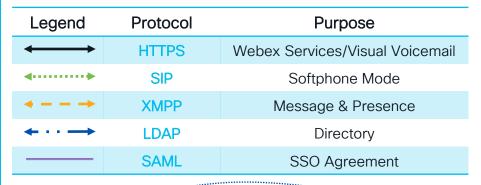
BRKCOL-2062

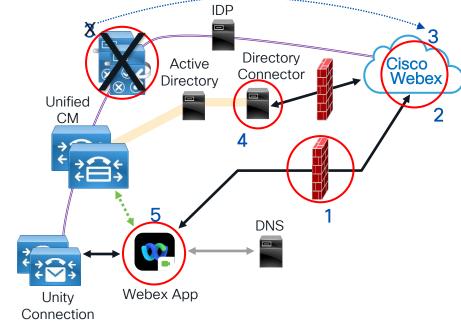


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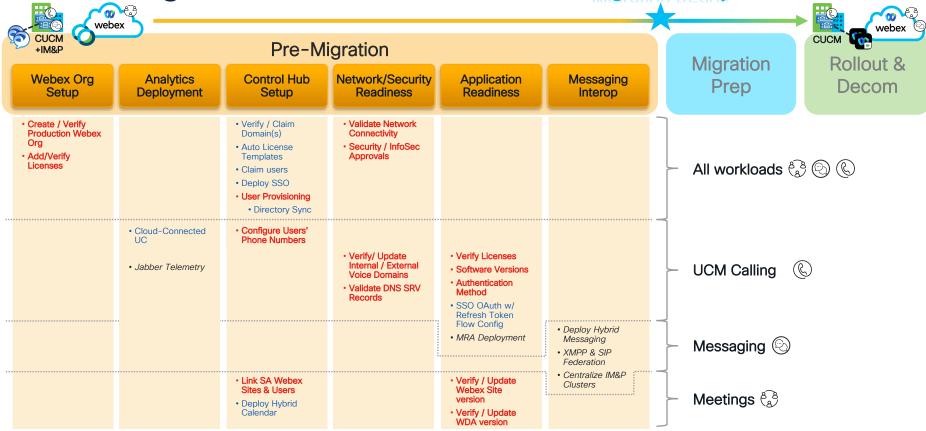






### Pre-Migration Activities

Migration Ready





### Migration Readiness

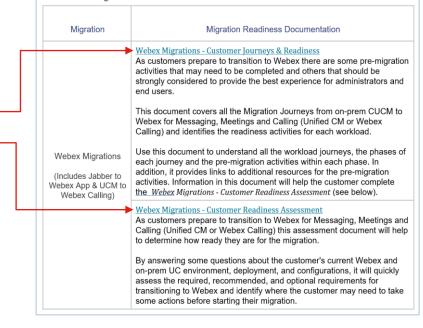
- Collaboration Transitions
  - Webex App Migration Readiness documents
    - Migration Readiness Guide
    - Migration Readiness Assessment -
  - Additional documents:
    - Transition Maps
    - Transition Deployment Guides

### https://www.cisco.com/go/ct

#### **Migration Readiness**

Before beginning any transition, it is important to evaluate the existing deployment and determine what needs to be completed before the migration can begin. Understanding migration readiness and leveraging tools like readiness assessments help to determine whether the existing environment is ready to be migrated and is critical for a successful transition.

Table 1. Migration Readiness Information

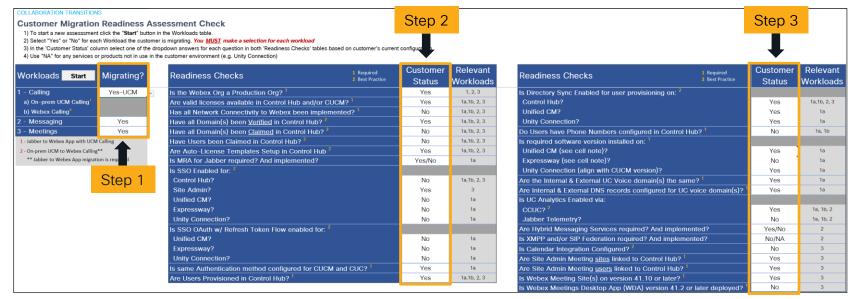




# Migration Readiness Assessment



 Use the <u>Webex Migrations - Customer Readiness Assessment</u> to verify your readiness to migrate

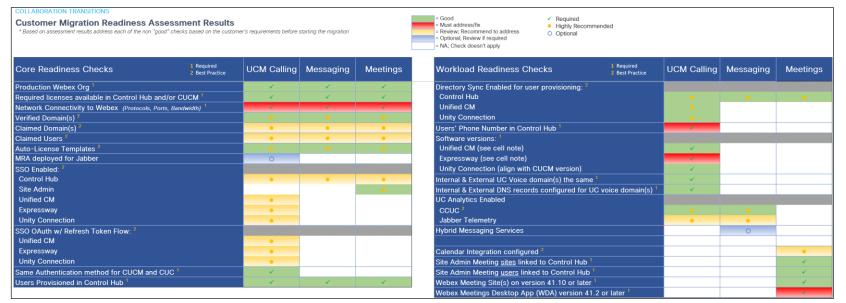




# Migration Readiness Assessment



 The following output is generated on 2nd tab to show which pre-migration readiness items need attention

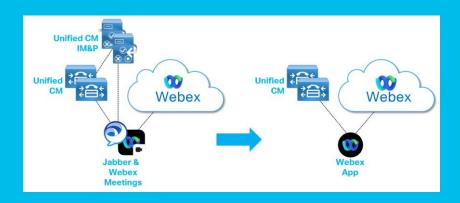




# Migration of Jabber Workloads



# Jabber Workload Migrations



### Calling (UCM)

 Stay with UCM on-prem for calling platform

### Messaging

UCM IM&P → Webex

### Meetings

- Webex
- WDA → Webex App\*



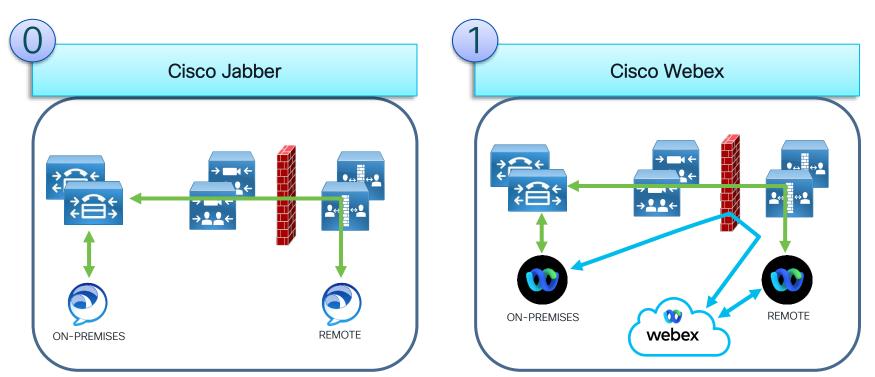
\* Most customers have already been migrated to Webex App for Meetings (over last 18+ months)

# UCM Calling Migration Journey

- ➤ Jabber → Webex App
  - ❖ Calling Platform: UCM On-prem



# UCM Calling: High-Level Transition Map



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



# **UCM Calling: Migration Journey**



- Create/Verify Cloud-Production Connected Webex Org
  - UC
  - Jabber Telemetry
- Verify/Claim Domain(s)
- Claim Users
- Auto License Templates
- Deploy SSO
- User Provisioning
- Directory Sync
- Directory Connector. SCIM
- CCUC
- Manual, CSV
- API
- Configure Users' Phone Numbers

- Validate Network
- Connectivity
  - Security & InfoSec Approvals
    - Verify/Update Internal/ External Voice **Domains**
    - Validate DNS
    - SRV Records
- Deploy SSO

Verify Licenses

(CUCM, Expwy.

Method (CUCM

Authentication

Software

CUC)

/ CUC)

Versions

- · SSO OAuth w/ Refresh Token Flow Config (CUCM, Expwy, CUC)
- MRA Deployment

### Migration Prep

Deploy &

Configure

(CUCM, Expwy, &

CUC Servers

#### Discover & Design

 Review Jabber **Users Collab** 

- Workloads Webex App Client Requirements
- Protocol Hander Integration
- Jabber Integrations

#### · Configure Webex Users/ Calling Settings

- Verify CUCM/ **Expwy Configs**
- Webex App Update Schedule
  - Stage Webex App Installation File
    - POC/Pilot

Plan & Prep

Webex App

**Options** 

Develop

Develop

Deployment

Migration Plan

Acceptance

Test Plan

### Migrate



Decom

- End User Comms/Training
- Migrate Users
- Jabber to Webex App
- Acceptance Testing
- Migrate User/Org Contacts
- Update Protocol Handlers for 3rd Party App Cross-Launch

 Remove Jabber from Users' **Devices** 



### UCM Calling: Readiness Checklist

Checks	Required
Production Webex Org	✓
Required Licenses Available in UC Applications	✓
Network Connectivity (to Webex) - Protocols, Ports, Bandwidth	<b>√</b>
Security / InfoSec Approvals	✓
CUCM / CUC Authentication Method	✓
Verify Internal and External Voice Domains are the Same	✓
Validate DNS Configurations	✓
Verified Domain(s) (Best Practice)	•
Claimed Domain(s) (Best Practice)	•
Claim Users (Best Practice)	•
Auto License Templates (Best Practice)	•
SSO Enabled (Best Practice) Webex CUCM Expressway <sup>1</sup> Unity Connection <sup>2</sup>	•

<sup>&</sup>lt;sup>1</sup>SSO required on Expressway if enabled on CUCM for Mobile and Remote Access (MRA)

Checks	Required
User Provisioning - Webex	✓
Directory Sync (Best Practice)  Webex - Directory Connector (AD), SCIM (Azure AD, Okta), CCUC, API  CUCM  Unity Connection	•
Users' Phone Numbers Configured in Control Hub	✓
UC Analytics Enabled CCUC Jabber Telemetry	0
Software Versions <sup>3</sup> CUCM Expressway Unity Connection (align with CUCM version)	✓ ✓ ✓
SSO OAuth w/ Refresh Token Flow (Best Practice) CUCM Expressway Unity Connection	•
MRA for remote users	0

Minimum:

CUCM 12.5(1) or later required for secure calling (SIP OAuth) – signaling and media CUCM 12.5(1)SU4 or later & Expressway X14.0 or later – best mobile SSO experience

<sup>&</sup>lt;sup>2</sup>SSO required on CUC if enabled on CUCM

<sup>\*</sup> CUCM: 11.5(1)SU3 / 12.5(1) --or-- 11.5(1)SU8 / 12.5(1)SU3 (for iOS)

<sup>\*</sup> Expressway: X8.11.4 / X12.5.0



### UCM Calling: Migration Prep Considerations

- Review Types of Jabber Users & Requirements
  - · Calling only, Messaging only, Full UC, etc.
- Webex App Client Requirements
  - Desktop
  - Mobile (iOS and Android)
  - VDI
- 3rd Party App Cross-launch (Protocol Handlers)
- Jabber Integrations
- Webex Users/Calling Settings
  - UC Profiles, Calling licenses, Org Calling settings, Client settings, etc.

- Review On-prem UC Configurations
  - CUCM End user configs, ILS, Home cluster, Jabber XML Config, Service Profiles, Security Profiles, Push Notifications, etc.
  - Expressway Zones, Call routing, etc.
  - Unity
- Deployment Options for Each Client Type
  - User driven
  - Admin software push
- Deployment Plan
  - POC feature validation/testing, deployment testing, etc.
  - Pilot size, success criteria
  - Production rollout plan
- User/Solution Acceptance Test Plan

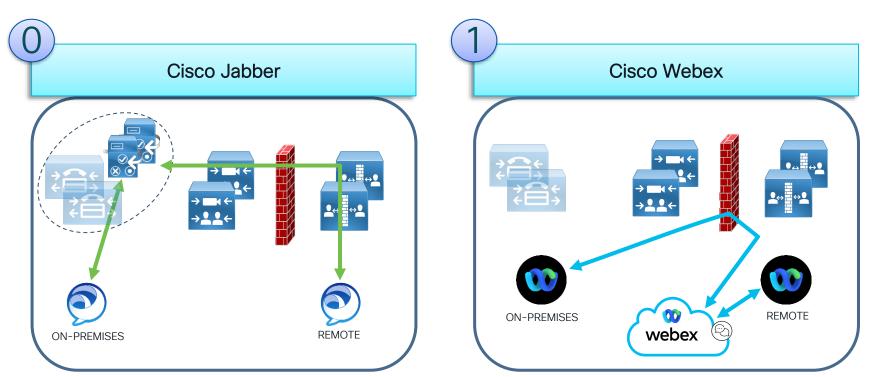


# Messaging Migration Journey

- ➤ Jabber → Webex App
  - ❖ CUCM IM&P → Webex



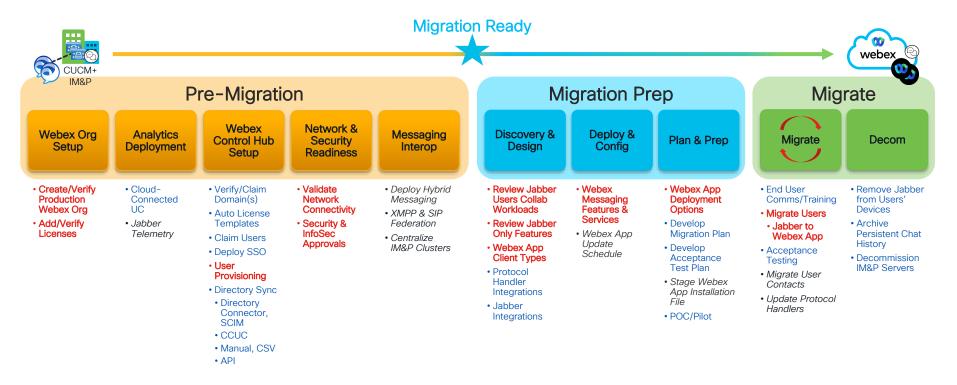
## Messaging: High-Level Transition Map



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



# Messaging: Migration Journey





### Messaging: Readiness Checklist

Checks	Required
Production Webex Org <sup>1</sup>	✓
Required Licenses Available in Webex	✓
Network Connectivity (to Webex) - Protocols, Ports, Bandwidth	✓
Security / InfoSec Approvals	✓
Verify Domain(s) (Best Practice)	•
Claim Domain(s) (Best Practice)	•
Claim Users (Best Practice)	•
Auto License Templates (Best Practice)	•

<sup>&</sup>lt;sup>1</sup>Consider Data Residency (which Webex datacenter stores customer's data)

Checks	Required
SSO Enabled (Best Practice) Webex	•
User Provisioning - Webex	✓
Directory Sync (Best Practice) Webex - Directory Connector (AD), SCIM (Azure AD, Okta), CCUC, API	•
UC Analytics Enabled CCUC Jabber Telemetry	0
XMPP or SIP Federation	0
Hybrid Messaging Services <sup>2</sup>	0
Centralize IM&P clusters	0

<sup>&</sup>lt;sup>2</sup>May be desired for phased migrations





### Messaging: Migration Prep Considerations

- Review Types of Jabber Users & Requirements
  - · Messaging only, Calling only, Full UC, etc.
- Identify if any Jabber only Features are Configured
  - Persistent Chat Rooms
  - Managed File Transfer
  - Etc...
- Webex App Client Requirements
  - Desktop
  - Mobile (iOS and Android)
  - VDI
- 3rd Party App Cross-launch (Protocol Handlers)
- · Jabber Integrations

- Webex Messaging Feature/Service Requirements
  - Message Retention
  - Content Management including 3rd party ECM (Enterprise Content Management) integrations
  - External Messaging Allow/Block messaging capabilities with external domains
- Deployment Options
  - User driven
  - Admin software push
- Deployment Plan
  - POC feature validation/testing, deployment testing, etc.
  - Pilot size, success criteria
  - Production rollout plan
- User/Solution Acceptance Test Plan



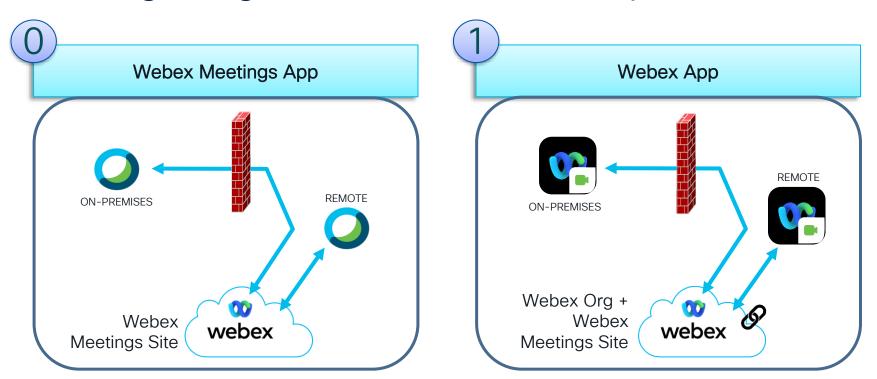
# Meetings Update Journey

➤ Webex Meetings Desktop App (WDA) → Webex App

❖ Majority of customers were updated before Apr 1, 2023



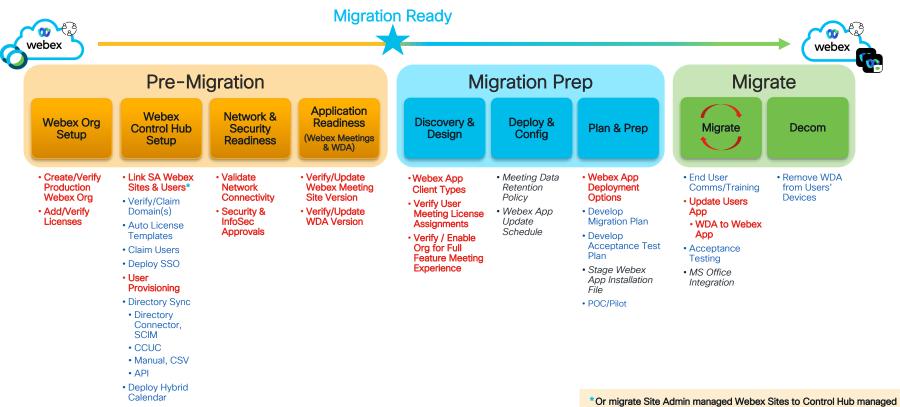
# Meetings: High-Level Transition Map



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



# Meetings: Migration Journey





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### Meetings: Readiness Checklist

Checks	Required
Production Webex Org <sup>1</sup>	✓
Required Licenses Available in Webex	✓
Network Connectivity (to Webex) - Protocols, Ports, Bandwidth	✓
Security / InfoSec Approvals	✓
Webex Meeting Site(s) Version <sup>2</sup>	✓
Webex Site & User Linking <sup>3</sup>	✓
Verify Webex Desktop App (WDA) Version4	✓

<sup>&</sup>lt;sup>1</sup>Consider Data Residency (which Webex datacenter stores customer's data)

Checks	Required
Verify Domain(s) (Best Practice)	•
Claim Domain(s) (Best Practice)	•
Claim Users (Best Practice)	•
Auto License Templates (Best Practice)	•
SSO Enabled (Best Practice) Webex <sup>5</sup>	•
User Provisioning - Webex	✓
Directory Sync (Best Practice) Webex - Directory Connector (AD), SCIM (Azure AD, Okta), CCUC, API	•
Hybrid Calendar Services (Best Practice)	•

<sup>5 &</sup>lt;u>Highly</u> recommend to enable SSO on Control Hub if SSO is enabled on Site Admin managed sites before updating. This is to avoid possible different authentication methods for users.



<sup>&</sup>lt;sup>2</sup>Webex Meetings site must be on 40.10 or later (latest version recommended)

<sup>&</sup>lt;sup>3</sup>For Site Administration sites, Webex Meetings site(s) and Webex Meeting users <u>must be</u> linked to Webex Control Hub

<sup>&</sup>lt;sup>4</sup>WDA 41.2 or later (latest version recommended)



### Meetings: Update Prep Considerations

- Webex App Client Requirements
  - Desktop
  - Mobile (iOS and Android)
  - VDI
- Verify Users' Meetings License Assignments
  - · Host, Attendee, None (Basic Meetings)
- Verify Org is enabled for the "Full Feature Meeting" Experience
- Review Meeting data retention Requirements
- Deployment Options
  - User driven
  - Admin software push

- Deployment Plan
  - POC feature validation/testing, deployment testing, etc.
  - · Pilot size, success criteria
  - Production rollout plan
- User/Solution Acceptance Test Plan
- Calendar Service Options (Outlook, In-App)
- Understand Video Mesh Implications (if applicable)
- Productivity Tools and Webex Scheduler NOT impacted but update.
  - Note: Productivity Tool EOL (last release: June 2022)
  - Migrate to Webex Scheduler

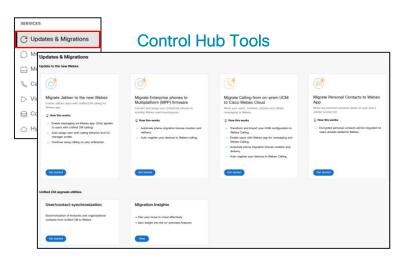


# Control Hub Tools



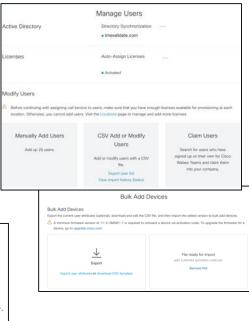
## Migration Tool Options

- Control Hub Tools: users, contacts, devices, app, etc.
- Webex APIs: add/modify/delete
- 3. Manual: Batch/Bulk Operations



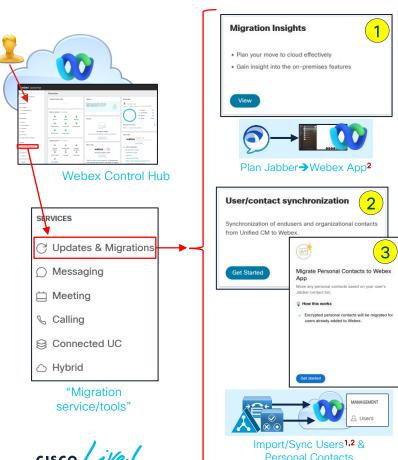


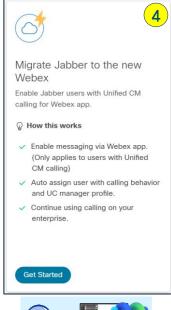
### Control Hub Manual Batch/Bulk



"invitePending": false, "loginEnabled": true,

### Control Hub Jabber Migration Tools







Migrate Jabber→WxA<sup>2</sup> (Calling: Stay on CUCM, Messaging: IMP→Wbx)

- 1 Help with migration planning<sup>1,3</sup>
- 2 Import or Sync<sup>1,2,3</sup> CUCM/LDAP users & Org Contacts
- Migrate Jabber users' contacts to Webex App
- 4 Migrate Jabber users to Webex App with UCM Calling<sup>1,3</sup>
  - <sup>1</sup> Requires CCUC
  - <sup>2</sup> Not required if Directory Sync is deployed
  - <sup>3</sup> Enable Deployment Insights

### Migration Tool Considerations

- 1. Looking for Jabber and Webex App usage and migration insights? Yes
  - Deploy Jabber Telemetry & CCUC
- 2. Is Director Connector, Azure AD or SCIM deployed to sync users to Control Hub? Yes
  - The User/Contact Synchronization tool is not applicable for syncing users but can be used for Org Contacts
- 3. Why to deploy CCUC?
  - Provides insights to on-prem usage before/during/after the migration.
  - Required for the 'Migrate Jabber to the new Webex', 'Migration Insights', and 'User/Contact Synchronization' tools
- 4. Phased user migration?
  - Use the 'Migrate Jabber to the new Webex' tool to migrate groups of users during different change windows
- 5. How are contacts being migrated?
  - By End-user Use Jabber XML file to enable end-users for migrating their own Jabber contacts/preferences
  - By Admin Use the 'Migrate Personal Contacts to Webex App' tool to migrate end-users' Jabber contacts
    - User must set/configure their own preferences in the Webex App



# Migration Best Practices



# Pre-Migration Activities

- Webex Org Setup
- □ Analytics Deployment
- □ Control Hub Setup
- Network & Security Readiness
- Application Readiness

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# Webex Org Setup Best Practices



## Production Org & Data Residency

Use Production Org for any migration

Get Started with Cisco Webex Control Hub

**\***Select the "best" Webex GEO for Data Residency during provisioning

 Org data, user identities, encryption keys, and user-generated content is stored in the Webex "geo-based" data centers

Data residency in Webex App

- Geos: North America/"Rest of World" or Europe
  - EU datacenters (Frankfort/Amsterdam) EU customers
  - UK datacenters (London/Amsterdam) still available

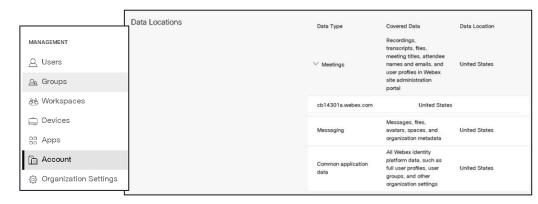
Find the Data Residency Region That Maps to a Country





### Content Storage & Data Location

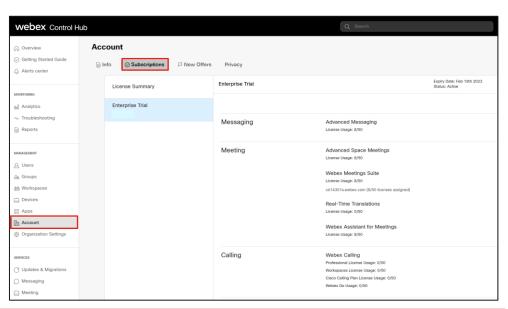
- When a user sends content in Webex (message or file), it is stored in the Webex conversation service
- Meeting Data:
  - Data stored based on time zone selected during Webex Meeting site provisioning
    - Where are the Webex Data Centers and iPOP Locations?
    - European Union data migration for Webex sites in Control Hub
- Verify Webex Org's
   Data Locations
   (on Account page Info tab)





### Webex Licenses

- \*
  - Ensure appropriate licenses and quantities are assigned to production Org
  - Verify expiration dates of ALL licenses
  - Contact your Cisco Webex Partner or Cisco Account team for information on:
    - · License requirements
    - License details & options
    - Subscription options
    - Purchasing new/additional licenses
  - View License Usage in Cisco Webex Control Hub



\* UCM Calling licenses are assigned/applied on CUCM/Unity and not in Control Hub



# Analytics Best Practices



# UC Analytics (1)







 Data from UCM and IM&P servers

- Jabber Telemetry<sup>2</sup>
  - Data from Jabber clients

- Insights into current UC deployment & usage
  - Active Users, Client Versions and OS Versions
  - Calls Volume, Types, Experience
  - Messages Sent, Types
  - Asset Usage
  - Call Traffic Analysis & Locations
  - Trunk Utilization
- Data for Migration planning
- Tools to assist with migration
- Analytics before/during/after migration
- Day-to-day operational capabilities



## CCUC Key Features

#### Service Management Changes to these settings will take a short time to take effect. Analytics Enabled Directory Service Certificate Management Enabled-Operational Metrics Webex app Provisioning for Unified CM Calling Disabled Deployment Insights Enabled-Borderless CTI Enabled Rich Presence Enabled.

- What's New in Webex Cloud-Connected UC
- Webex Cloud-Connected UC
- Analytics for Your Webex Cloud-Connected UC

Analytics

(call quality, traffic analysis, trunk usage, device usage)

**Directory Service** 

(UCM to Wxldentity for AzureAD etc.)

Certificate Management

(central view/distribute across apps/clusters)

Ops Dashboard with WebRTMT

(near-real-time view in CH not thick-client of last hour's call status & audio quality for top 5 UCM clusters)

Troubleshooting

(CX CSA integration for SDL logs in CH)

Also requires Webex Serviceability Connector

Touchless WxApp (auto-)provisioning

(enduser self-provision via just login to WxApp with UCM calling)

"Migration" to Webex

(understand Jabber usage, enable wizards under CH->Migration)

Borderless CTI

(enduser controls IP phone via WxApp CTI over MRA not VPN)

Rich Presence

(UCM-registered in-call phone status synced to WxApp presence)





# Cloud-Connected UC (CCUC)

- Enables insights into CUCM and IM&P deployment and usage (messages, calls)
- Enables day-to-day operational capabilities for UCM Calling
  - Control Hub Analytics, CUCM Certificate Management, Web-based RTMT, Troubleshooting, Auto-Provisioning of Webex App
- Provides data to assist with migration planning (Users, Phones, Jabber clients)
- Enables Control Hub migration tools
  - CUCM Users and Contacts, Users' Personal Contacts, CUCM to Webex Calling, CUCM phones from to Webex Calling, Import Personal Contacts from generic devices/clients
- What's New in Webex Cloud-Connected UC
- Webex Cloud-Connected UC
- Analytics for Your Webex Cloud-Connected UC





## Jabber Telemetry

- Enables insights into the Jabber client usage patterns (messages and calls)
- Primarily for Messaging and UCM Calling migrations
- Provides data to assist with Jabber user migration planning

- Reference Links:
  - Analytics for Your Cloud Collaboration Portfolio (see "Jabber" tab)
  - Feature Configuration for Cisco Jabber 12.8 Telemetry with Cisco Jabber Analytics
  - Feature Configuration for Cisco Jabber 14.0 Telemetry with Cisco Jabber Analytics

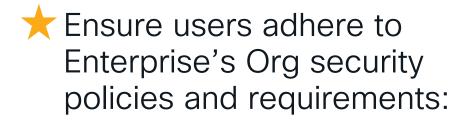


# Control Hub Setup Best Practices



### **User Security Compliance**





- Verifying Domains
- □ Claiming Domains
- Claiming Users



# "Verify" & "Claim" Domain(s)

#### Verify Domain(s)

- Identify which domain(s) belong to a Webex Org "prove" who owns the domain(s)
- Enable Admins to move existing Webex users using their Org's domain(s) from other Orgs to their Org

#### Claim Domain(s)

- Ensure new users using the Org's email domain are automatically added to the Webex Org, including users who sign themselves up for the Webex App - existing users not impacted
- Allows for Administrators to manage Webex services for all users in the Enterprise
- Allows for automatic user activation with SSO
- Manage your Domains Add, Verify and Claim
- Prevent Users from Self-Registering with your Domain



### "Verified" vs "Claimed"

	Verified Domain	Claimed Domain
Process	Control Hub, DNS based validation (TXT record)	Control Hub, Verify 1 <sup>st</sup> then Claim
Exclusive	Domain users <u>can</u> exist in and can be added to other organizations	Domain users <u>cannot</u> be added to other organizations  Domain users existing prior to claim are not affected
Sideboarding	Domain users can be sideboarded into consumer organization	Sideboarding into consumer organization, can be disabled*  Directory Connector: No sideboarding!
Conversion	Domain users can be converted from consumer organization Delayed conversion if email domain is not verified nor claimed	
Directory Connector	Can add users from domain	Can add users from domain

<sup>\*</sup> Prevent-Users-from-Self-Registering-with-your-Domain

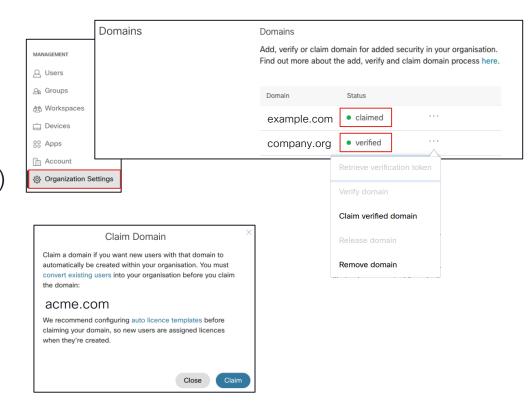


### "Verified" and "Claimed" Domains

 Use Control Hub to "claim" and "verify" domains

 Domains verified via Control Hub (DNS validation via TXT record)

 Domain claim requires that domain has been verified first





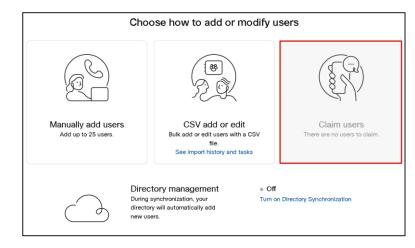
### Claim Users

- Ensure all Enterprise users have a consistent collaboration experience and access to the same features/capabilities
- Ensure the security and integrity for the organization

Move existing users using Org's email domain(s) from other Orgs to their Org,

including from the free consumer Org

- Reference Links:
  - Claim Users to Your Organization (Covert Users)
  - Disable Delayed Claim for Your Organization





### Auto License Templates



#### Use License Templates to assign the correct collaboration services to users

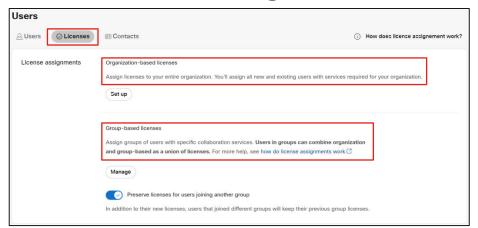
- Automates & simplifies user onboarding and license management
  - Newly created user accounts will be automatically licensed for selected services
- Licenses updates/changes can be for:
  - New users only
    - -- or --
  - · New and existing users



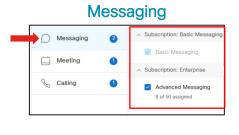
- Reference Links:
  - Set Up Automatic License Assignment Templates in Cisco Webex Control Hub

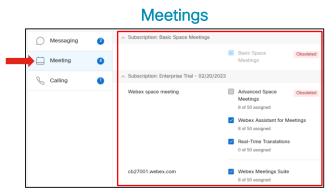


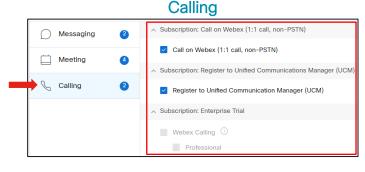
### License Management



- Use License Templates to assign licenses for each workload (Messaging, Meetings and Calling)
- License Assignment options:
  - Entire Org (Org-based assignment)
     and/or
  - By Groups (Group-based assignment)



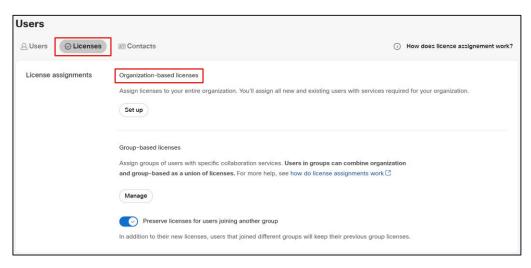






## Org-based Template

- Single template
- For the entire Org
- License assignments apply to <u>ALL</u> users

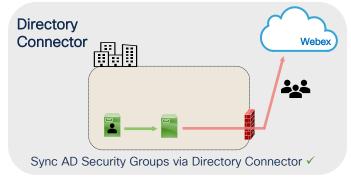


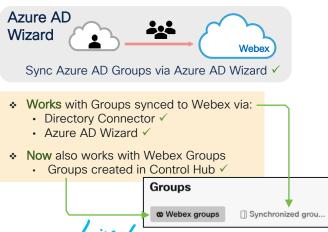
 New user accounts added to the Org will be automatically assigned licenses in template



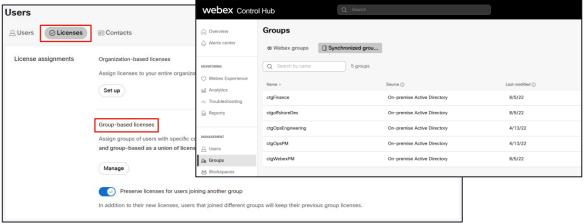
### Group-based Templates







- Assign different licenses to different groups of users
- Applied at Group level
- Different License Templates for each Group
- New user accounts <u>added</u> or <u>sync'd</u> to a group will be automatically assigned licenses to that group



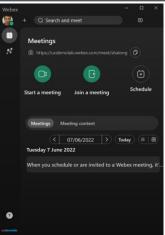
### Service Entitlement

- Services can be checked/unchecked within each license (per Org, Group, or User)
  - To deploy a Meetings ONLY client, remove the messaging and calling services
  - To deploy a Calling ONLY client, remove the messaging and meetings services

#### BEWARE!

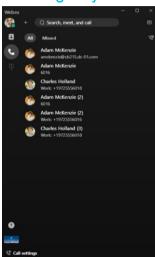
- Removing messaging will also remove space meeting functionality (e.g. scheduling)
- Users existing messages/files will be retained as per your orgs retention policy

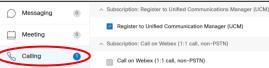




**Meetings Only Client** 

#### **Calling Only Client**







### **User Authentication**

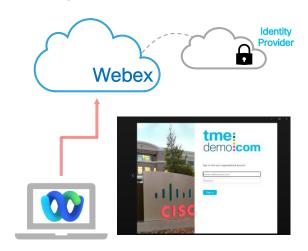
#### **Basic Authentication**

- Email & Webex password
- Optional integration with Duo for MFA



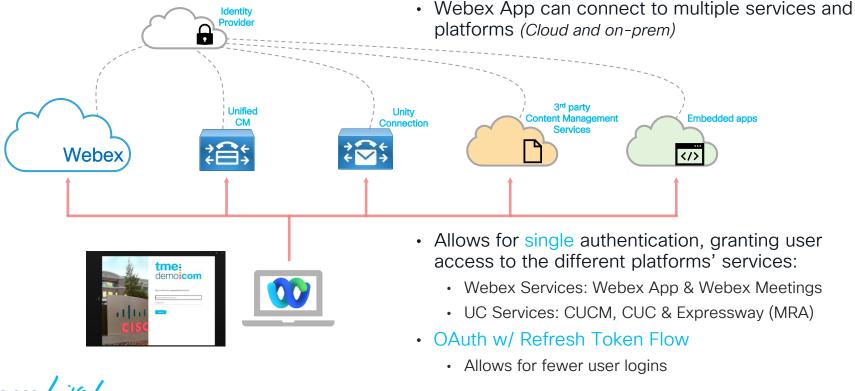


- Any auth type supported by the IDP
- MFA
- Common user identity across all services/ platforms





## SSO: Simplify User Experience



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### SSO: Webex Control Hub

🜟 Enable if enabled for Jabber users - maintain user experience

Tenable if enabled for Webex Meetings (Site Admin) - maintain user experience

Site Admin	Control Hub	Webex app Experience
Basic Authentication	Basic Authentication	Password is linked
SSO Enabled	Basic Authentication	SSO login
SSO Enabled	SSO Enabled	SSO login (RECOMMENDED)
Basic Authentication	SSO Enabled	Not Supported

- Provides the Best user experience: single set of credentials for ALL Webex services
- Reference Links:
  - Single Sign-On Integration in Control Hub
  - Configure Single Sign-On for Cisco Webex Site (Meetings workload only)
  - Control of activation emails in Control Hub (Requires SSO with Directory Connector)



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# Single Sign On (SSO)

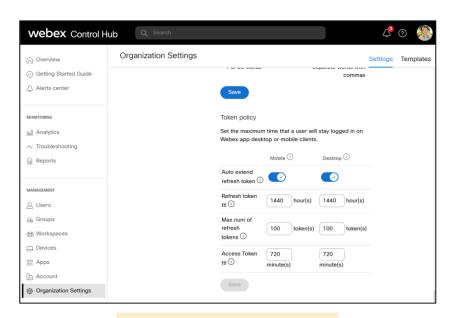
- SAML 2.0 based (SP initiated form-based REDIRECT/POST authorization code authorization flow)
- Validated configuration guides for:
  - Active Directory Federation Services (ADFS)
  - Duo
  - F5 Big-IP
  - Google Apps
  - Microsoft Azure
  - OKTA
  - PingFederate
  - Shibboleth
  - SimpleSAML

Links to configuration guides for IdPs listed on this page:

https://help.webex.com/en-us/article/lfu88u/Single-Sign-On-Integration-in-Control-Hub



### Webex OAuth Token Management



\* Requires Webex Pro Pack

- Webex service issues 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 settings best for your environment
  - Note: Previously Auto Extend was set to 'On', now default is 'Off'
- Default Webex Refresh token = 60 days
  - Consider the UCM default Refresh token setting (60 days)



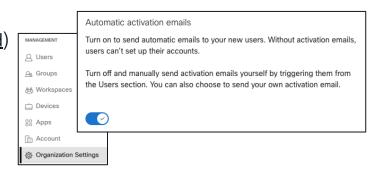
### User Activation with SSO

- Default: New users receive validation email to activate
  - User validates activation
  - · User sets their password
  - User provides some personal details



#### Recommended: New users automatically activated w/out user intervention

- Directory Connector + SSO + disable automatic activation emails
  - Validation of user activation not required if domain is associated with given organization (<u>domain is verified</u>)
  - Setting password is <u>not required</u> with SSO
  - Providing user details is <u>not required</u> with Directory Connector





### Webex User Provisioning

- Users must be in Webex Control Hub to consume Webex services
- Users <u>must</u> be in the Webex Directory service to be searchable
- Critical to maintain an up-to-date and accurate Webex user directory
  - User provisioning is IMPORTANT for the correct user experience of the Webex App
- Reference Links:

Ways to add users to your Control Hub organization

Add Users Manually in Control Hub

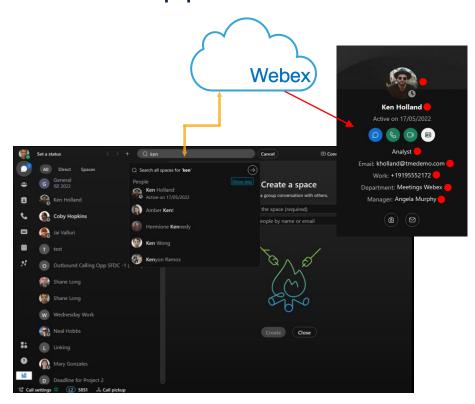
Edit Service Licenses in Control Hub for Individual
Users

Add Multiple Users in Control Hub with the CSV Template

Modify Users in Control Hub with the CSV Template
People API



### Webex App User/Contact Search & Resolution

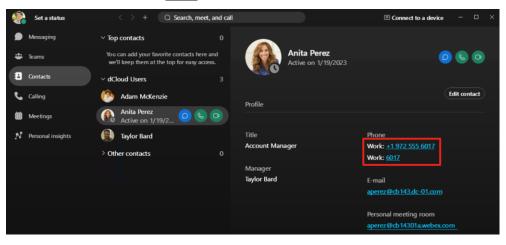


- Webex App will perform directory queries against the Webex Directory Search Service
  - User Search
  - User Resolution
  - Phone Number Resolution
  - Avatar Display
- Ensure all necessary users and user attributes are imported/synced to Webex via user provisioning process
- UCM Calling does NOT search CUCM UDS or LDAP



### User's Phone Number for Calling

- Work number <u>must</u> be configured in Control Hub to call via directory search (click-to-call)
  - Webex App supports user's work number <u>and</u> work extension\*



- For UCM Calling:
  - Users' work number in Control Hub must be based on CUCM dial-plan
    - E-164
    - Extension dialing
    - · Site dialing
  - Add/Update via user provisioning method
  - Recommend syncing CUCM/CUC and Webex from same source



See the Directory Sync Comparison reference for which options support work extension

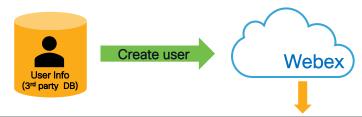


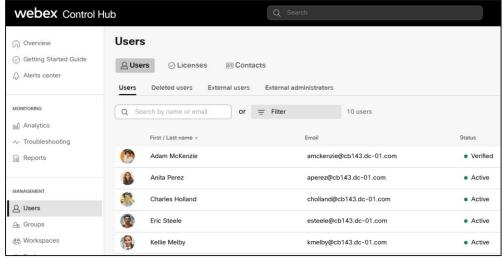
## Configure Users' Phone Numbers

- Add/Update phone number for individual users or multiple users
- Add/Update via Control Hub UI, Control Hub CSV import or Webex APIs
  - Options available to synchronize phone numbers with users (see Directory Sync)
- Reference Links:
  - Change Users' Phone Numbers
  - People API
  - Deployment Guide for Cisco Directory Connector (see "Map User Attributes" and "Active Directory and Cloud Attributes" sections)
  - Synchronize Azure Active Directory Users into Control Hub (see "Map User Attributes from Azure to Webex" section)
  - Synchronize Okta Users into Cisco Webex Control Hub



### Webex User Provisioning





#### Webex User Attributes

- avatar
- buildingName
- (
- departmentNumber
- displayName
- ds-pwp-account-disabled
- employeeNumber
- employeeType
- externalID
- facsimileTelephoneNumber
- givenName
- iabberID
- •
- locale
- manager
- mobile
- O

- ou
- phoneNumbers;typework extension
- physicalDeliveryOfficeName
- postalCode
- preferredLanguage
- pronoun
- sipAddresses;type-enterprise
- sn
- st
- Street
- telephoneNumber
- timezone
- title
- uid\*





### Webex User Provisioning Options







Secondary Considerations

> Additional Options

	= Recommended
Method	Description
Directory Connector	Automatic method for creating, updating and deactivating user accounts and groups via Active Directory or AD LDS
Azure AD Wizard	Automatic method for creating, updating and deactivating user accounts via Azure AD
SCIM (e.g. Okta)	Automatic method for creating, updating and deactivating user accounts via Okta (or Azure AD)
CUCM User <u>Sync</u> 1/Import	Create Webex user accounts based on CUCM end-users
CSV file	Admin can create and update users by importing a CSV file into Control Hub. Bulk user management.
API	Admin can create, update delete and list users by using Webex API's. Use own or 3 <sup>rd</sup> party scripts/tools for user management
SAML JIT	Automatic account creation based on SSO login
Manual	Admin can use Control Hub to manage individual user accounts
Self Registration	User can self register to create their Webex account in a claimed org
Social Login	Automatic account creation via sign in to third party service for claimed domain (Apple, Google, Facebook, Microsoft)
Meetings Site User Linking	Automatically link Site Admin user accounts to Control Hub



### Webex User Provisioning - Comparison

#### **Directory Sync Options**

\*Recommended over Azure AD App (SCIM)

\*\* Most user attributes available with AD Directory Connector

	Sync from On-prem AD <u>Director Connector</u>	Sync from Azure AD Azure AD Wizard*	Sync from Azure AD Azure AD App (SCIM)	Sync from Okta Directory Okta (SCIM)	
Moves, Adds, Changes	++ Automatic – Based on sync schedule	++ Automatic - Immediate in Control Hub	++ Automatic – Immediate in Control Hub	++ Automatic - Immediate in Control Hub	
Ease of use	Initial setup required with on-prem Windows Server	++ All configurations done in Control Hub	+ Setup in Control Hub and Azure AD	+ Setup in Control Hub and Okta tenant	
Infrastructure Requirements	o Directory Connector	++ None	++ None	++ None	
Flexibility	+ Customization possible (groups, avatars, attribute mapping)**	+ Customization possible (groups, avatars, attribute mapping)	o Limited attributes (attribute mapping; no groups or avatars)	- Minimum attributes possible (~8 attributes; no attribute mapping, groups or avatars)	
Integration into business processes	Yes, if users are managed by Active Directory	None	None	None	

- ++ Highly Positive Impact
- Positive Impact

- Neutral Impact
- Negative Impact
- -- Highly Negative Impact



### Webex User Provisioning - Comparison

#### Other Options

	Manual Provisioning	Control Hub Tool	Bulk Provisioning (CSV)	API	
Moves, Adds, Changes	 Users one-by-one	o Multiple users	+ Multiple users	++ Multiple users (based on integration)	
Ease of use	++	+ Initial setup to configure	o Process setup (data source, data format,)	 Learning curve, requires DevOps to integrate	
Infrastructure Requirements	++ None	o CCUC	+ CSV files	 Servers for coding and integration	
Flexibility	++	o Customization possible (users, groups & org contacts	+ Managing CSV file	++ Increased API for more options	
Integration into business processes	None	None	Possibly limited integration via customized data export/import	Tight integration possible	

++ Highly Positive Impact

+ Positive Impact

o Neutral Impact

- Negative Impact

-- Highly Negative Impact



### Directory Sync

- Use directory synchronization to SIMPLIFY user provisioning and management
  - Directory Connector
  - Azure AD Wizard

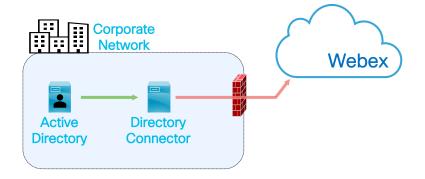
- SCIM (Okta, Azure AD App\*)
- CCUC (LDAP/AD, UCM Endusers)
- Sync Control Hub, CUCM and CUC users from same directory source
- (New) Sync users from Webex Common Identify (CI) services to CUCM and CUC via CCUC
- · Reference Links:
  - Webex Cloud-Connected UC Directory Service support for Unified CM
  - Webex Cloud-Connected UC Directory Service support for Unity Connection



### Directory Connector vs. Azure AD Wizard/SCIM



#### **Directory Connector**



#### · Reference Links:

Deployment Guide for Cisco Directory Connector

#### Azure AD / SCIM



#### · Reference Links:

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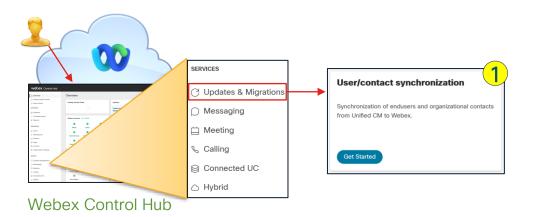
- Set up Azure AD Wizard App in Control Hub (Recommended)
- Synchronize Azure Active Directory Users into Control Hub
- Manage Synchronized Azure Active Directory Users
- Synchronize Okta Users into Cisco Webex Control Hub



### Directory Sync - Comparison

1 SCIM-based 2 Azure AD Logs 3 SCIM 2.0 API

2nd Work Number/Extension Attribute       ✓       X       X       (Q3 CY23)³         Full & Incremental sync options       ✓       X       X       X         Manual/Force sync option       ✓       X       X       ✓         On-Demand User Provisioning       X       ✓       X       X         Dry-Run (pre-check)       ✓       ✓       X       X         Sync report       ✓       ✓       ✓       ✓         Support multiple sync source       X       ✓       ✓       X         Exclusive sync source/Single source of truth       ✓       X       X       X         SSO Configuration       X       ✓       ✓       ✓       ✓         Domain Verification       X       ✓       ✓       X       X         User's Manager       ✓       ✓       X       X       X         Sync Org Contacts       ✓       X       X       X		•			
Allows local Webex user creation   x	Functions / Features				Okta <sup>1</sup>
Filter/Select users or groups-of-users to sync	Sync Users (Create, Delete, Update)	✓	✓	✓	✓
Soft-Delete/Recover Inactive User         ✓         ✓         ⊕ (Q3 CY23)³         ⊕ (Q3 CY23)³<	Allows local Webex user creation	×	✓	✓	✓
Sync Groups         ✓         ✓         ⊕ (Q3 CY23)³         ⊕ (Q3 CY23)³           Sync Avatar         ✓         ✓         ×         ×           Attribute Sync/Mapping         ✓ (30)         ✓ (15)         ✓ (15)         ✓ (6)         ⊕ (23 - Q3 CY23)³           2nd Work Number/Extension Attribute         ✓         ×         ×         ×         ⊕ (Q3 CY23)³           Full & Incremental sync options         ✓         ×         ×         ×         ×           Manual/Force sync option         ✓         ×         ×         ×         ✓           On-Demand User Provisioning         ×         ✓         ×         ×         ×           Dry-Run (pre-check)         ✓         ✓         ×         ×         ×           Sync report         ✓         ✓         ✓         ×         ×         ×           Support multiple sync source         ×         ✓         ✓         ×         <	Filter/Select users or groups-of-users to sync	✓	✓	✓	✓
Sync Avatar         ✓         ✓         ×         ×           Attribute Sync/Mapping         ✓ (30)         ✓ (15)         ✓ (15)         ✓ (6)         ⊕ (23 - Q3 CY23)³           2nd Work Number/Extension Attribute         ✓         ×         ×         ×         ✓         ⊕ (Q3 CY23)³           Full & Incremental sync options         ✓         ×         ×         ×         ✓           Manual/Force sync option         ✓         ×         ×         ✓         ✓           On-Demand User Provisioning         ×         ✓         ×         ×           Dry-Run (pre-check)         ✓         ✓         ×         ×           Sync report         ✓         ✓         ✓         ×           Support multiple sync source         ×         ✓         ✓         ×           Exclusive sync source/Single source of truth         ✓         ×         ×         ×           SSO Configuration         ×         ✓         ✓         ×         ×           Domain Verification         ×         ✓         ×         ×         ×           User's Manager         ✓         ✓         ×         ×         ×           Sync Org Contacts         ✓ <td< th=""><th>Soft-Delete/Recover Inactive User</th><th>✓</th><th>✓</th><th>✓</th><th>(Q3 CY23)<sup>3</sup></th></td<>	Soft-Delete/Recover Inactive User	✓	✓	✓	(Q3 CY23) <sup>3</sup>
Attribute Sync/Mapping  √(30)  √(15)	Sync Groups	✓	✓	(Q3 CY23) <sup>3</sup>	(Q3 CY23) <sup>3</sup>
Attribute Sync/Mapping         ✓ (30)         ✓ (15)         ✓ (15)         ⊕ (23 - Q3 CY23)³           2nd Work Number/Extension Attribute         ✓         ×         ×         ★         ★         ★         ★         ★         ★         ★         ★         ★         ★         ★         ✓         ★         ★         ✓ <t< th=""><th>Sync Avatar</th><th>✓</th><th>✓</th><th>×</th><th>×</th></t<>	Sync Avatar	✓	✓	×	×
Full & Incremental sync options  Manual/Force sync option  On-Demand User Provisioning  x  V  X  X  X  On-Demand User Provisioning  X  Dry-Run (pre-check)  Sync report  Support multiple sync source  Exclusive sync source/Single source of truth  SSO Configuration  X  X  X  X  X  X  X  X  X  X  X  X  X	Attribute Sync/Mapping	<b>√</b> (30)	<b>√</b> (15)	<b>√</b> (15)	<b>√</b> (6) <b>(</b> 23 - Q3 CY23) <sup>3</sup>
Manual/Force sync option  On-Demand User Provisioning  x  V  Dry-Run (pre-check)  Sync report  Support multiple sync source  Exclusive sync source/Single source of truth  SSO Configuration  Domain Verification  V  X  X  X  X  X  X  X  X  X  X  X  X	2 <sup>nd</sup> Work Number/Extension Attribute	✓	×	×	(Q3 CY23) <sup>3</sup>
On-Demand User Provisioning  x  Dry-Run (pre-check)  Sync report  Support multiple sync source  Exclusive sync source/Single source of truth  SSO Configuration  Domain Verification  X  X  X  X  X  X  X  X  X  X  X  X  X	Full & Incremental sync options	✓	×	×	×
Dry-Run (pre-check) ✓ ✓ ✓   Sync report ✓ ✓ ✓   Support multiple sync source × ✓ ✓   Exclusive sync source/Single source of truth ✓ × ×   SSO Configuration × ✓ ✓   Domain Verification × ✓ ✓   User's Manager ✓ ✓ ×   Sync Org Contacts ✓ × ×	Manual/Force sync option	<b>✓</b>	×	×	✓
Sync report  Support multiple sync source  x  Exclusive sync source/Single source of truth  SSO Configuration  Domain Verification  x  User's Manager  Sync Org Contacts	On-Demand User Provisioning	×	✓	×	×
Support multiple sync source  Exclusive sync source/Single source of truth  SSO Configuration  The sync source of truth  T	Dry-Run (pre-check)	✓	✓	×	×
Exclusive sync source/Single source of truth  SSO Configuration  Domain Verification  V  V  V  V  Sync Org Contacts  V  X  X  X  X  X  X  X  X  X  X  X  X	Sync report	✓	✓	√2	√2
SSO Configuration  x  V  Domain Verification  x  V  x  V  x  User's Manager  Sync Org Contacts  x  x  x  x	Support multiple sync source	×	✓	✓	×
Domain Verification   User's Manager   Sync Org Contacts	Exclusive sync source/Single source of truth	<b>✓</b>	×	×	×
User's Manager  ✓  Sync Org Contacts  ✓  ×  ×  ×  ×  ×  ×  ×  ×  ×  ×  ×  ×	SSO Configuration	×	✓	✓	✓
Sync Org Contacts ✓ × × ×	Domain Verification	×	✓	✓	×
	User's Manager	✓	✓	×	×
Multiple Emails	Sync Org Contacts	✓	×	×	×
	Multiple Emails	(Q3 CY23)	(Q3 CY23)	×	(Q3 CY23) <sup>3</sup>



- Directory Sync for Users (Recommended)
- Alternate Options:
  - 1 Sync Users from UCM onpremise<sup>1,2</sup>

Synchronize User and Organizational Contacts

2 Import Users using CSV file<sup>3,4</sup>
Migrate Users to Webex



<sup>&</sup>lt;sup>1</sup> Not required if Directory Sync is deployed

<sup>&</sup>lt;sup>2</sup> Requires CCUC

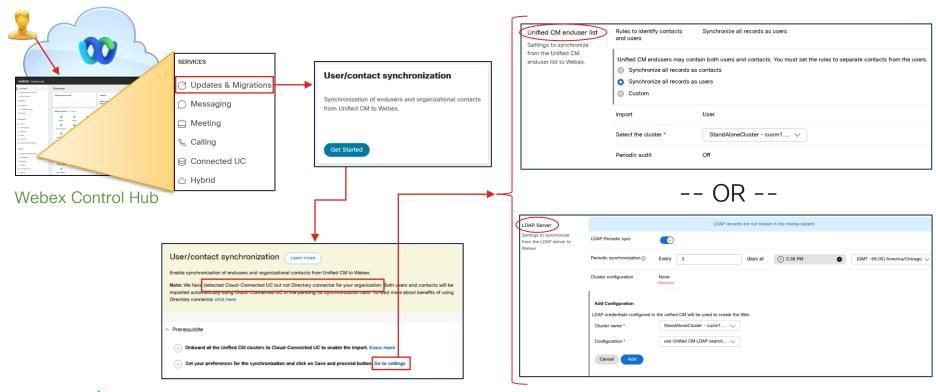
<sup>3</sup> CUCM BAT Export

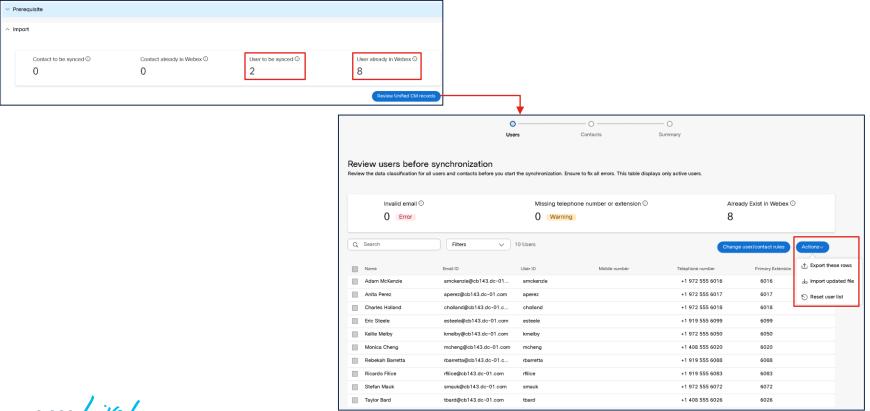
<sup>&</sup>lt;sup>4</sup> Directory Sync and CCUC cannot be deployed

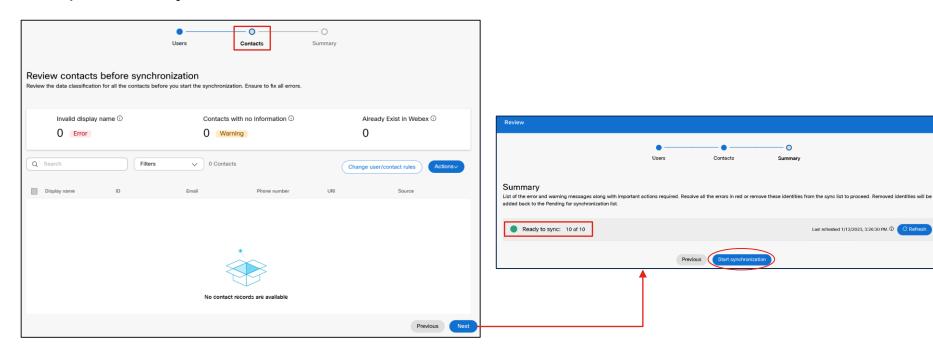
# Option 1 Sync Users

- \* Requires CCUC
- \* Directory Sync is **NOT** deployed

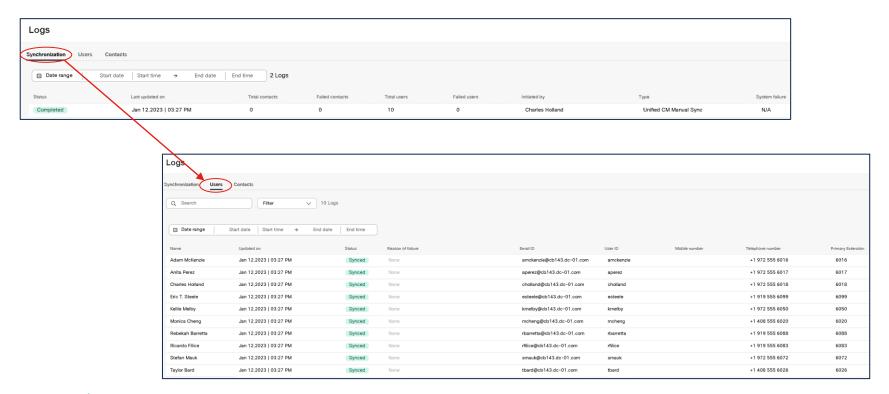








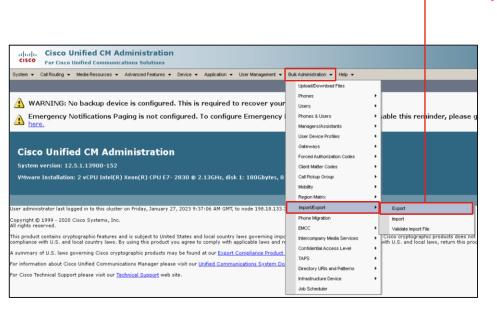


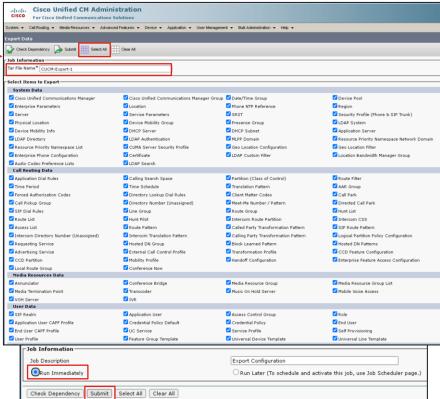




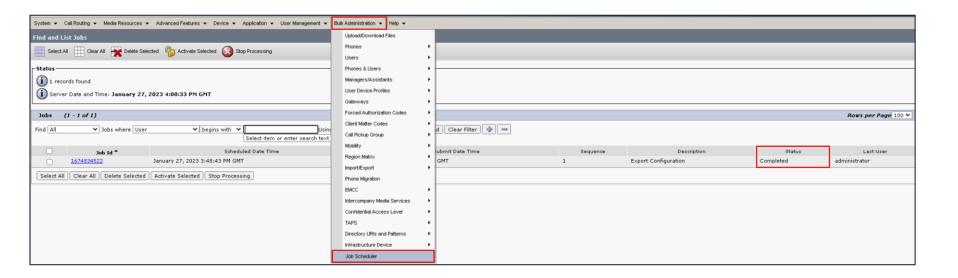
- \* Directory Sync and CCUC are NOT deployed
- \* Uses BAT Export from CUCM



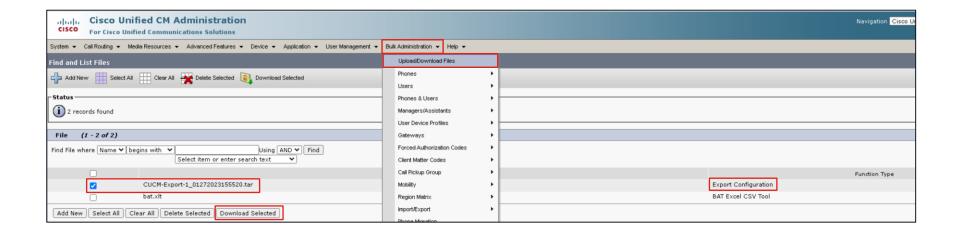






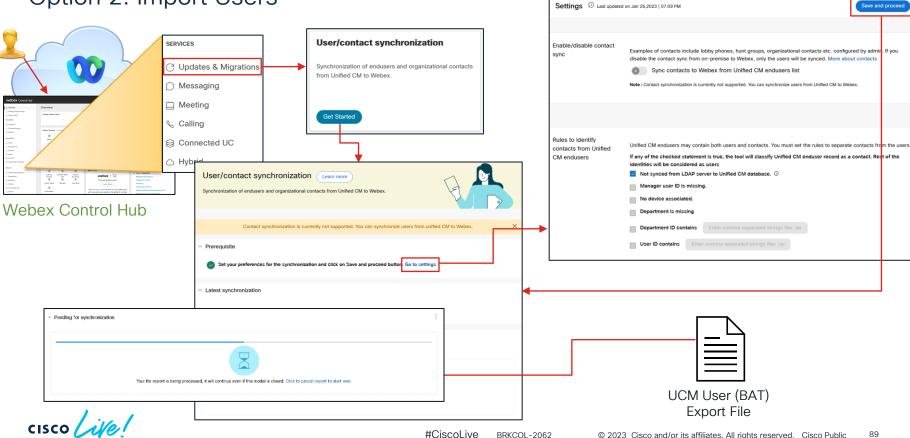




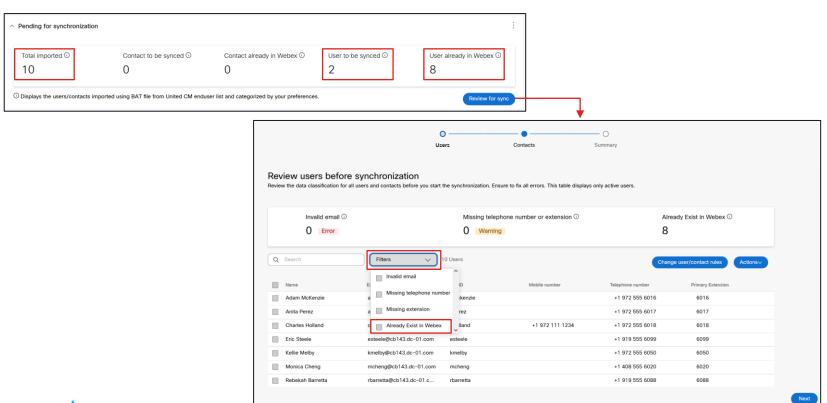




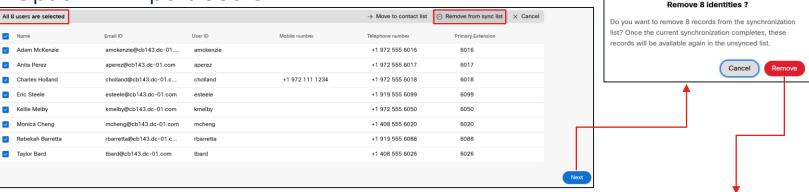
Option 2: Import Users

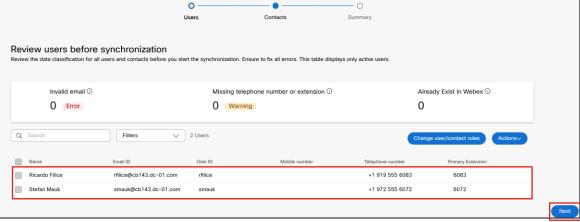


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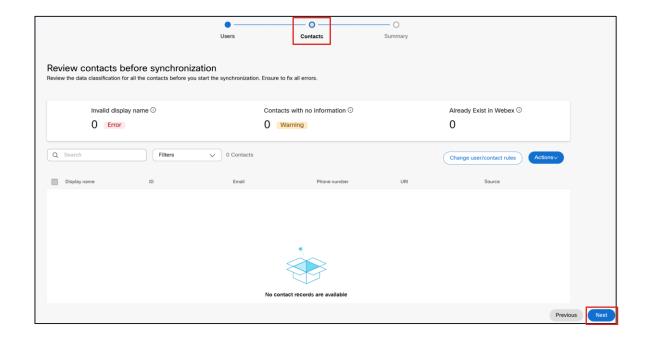




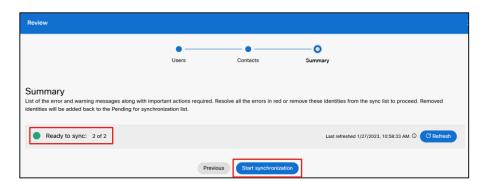


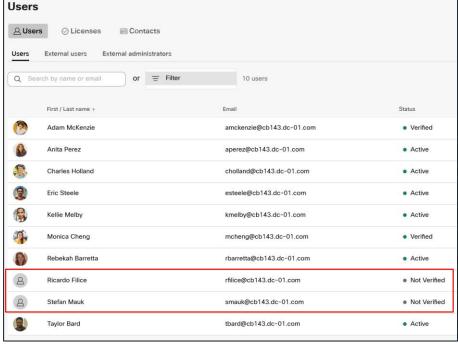














# Meeting Calendar



### Hybrid Calendar Integration



Deploy if users had calendar integration with their Webex Meeting Desktop App (WDA)

- Integrates user's calendar with the Webex App calendar
- Simplifies scheduling and joining Webex Meetings
- Hybrid Calendar Services:
  - On-prem Microsoft Exchange
  - Office 365
- Reference Links:
  - Deployment Guide for Cisco Webex Hybrid Calendar Service
  - Cisco Webex Hybrid Calendar Service with Microsoft Exchange Integration Reference
  - Cisco Webex Hybrid Calendar Service with Office 365 Integration Reference
  - Cisco Webex Hybrid Calendar Service with Google Calendar Integration Reference



Preferred site set by user. Calendar service creates scheduled meeting on this site

Start user's personal room

Join meeting by entering meeting number, SIP URI or URL

Launch Outlook to schedule a Personal Room meeting

Meetings on user's calendar and can be seen only if user has Hybrid Calendar Service enabled

Join button pops up 5 mins before meeting starts. User clicks it to join meeting

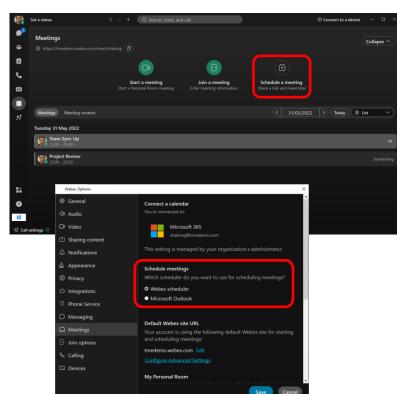


### Scheduling a Webex Meeting

- Multiple ways to schedule a Webex Meeting:
  - Via Webex Site
  - Webex Scheduler (M365 add in) / Productivity Tools<sup>1</sup>
  - Hybrid Calendar Service (@webex, @meet, etc.)
  - Webex for Google Workspace
  - In-App Scheduler In-app initiated
  - Microsoft Outlook

User set their scheduling preference in the app

<sup>1</sup> End-of-Life for Productivity Tool: 42.6 last release (June 2022)
Migrate from Productivity Tools to the Webex Scheduler add-In



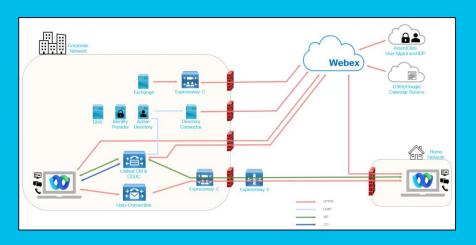


Network & Security Readiness Best Practices



# Network & Security Requirements

User Quality of Experience



- On-Prem Users:
  - Verify network requirements (ports, protocols, firewall rules, whitelist URLS, bandwidth, etc.)
  - Review/Reuse existing peering connections (e.g. Edge Connect)
- VPN Users:
  - Optimize AnyConnect Split Tunnel for Cisco Webex
- Remote/Mobile Users:
  - · Deploy MRA for UC voice services
- Critical to work with InfoSec/Security teams early



### **Network Connectivity**

 Ensure the Enterprise network allows for the appropriate protocols, ports, bandwidth and security policies to allow the Webex App to connect to the Webex cloud services

- Reference Links:
  - Network Requirements for Webex, Webex Meetings, and Cisco Jabber
    - Network Requirements for Webex Services
    - How Do I Allow Webex Meetings Traffic on My Network?
    - Bandwidth Planning in your Cisco Webex Meetings Environment White Paper
    - Cisco Webex Hybrid Services Bandwidth Management
  - Cisco Webex Network Test



### Webex Network Requirements Tool

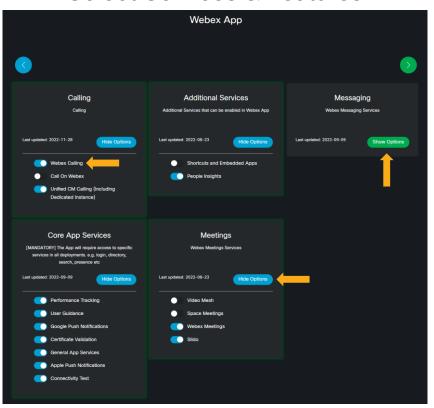
# Quickly identify network requirements for deploying Webex App

Avoid researching multiple docs and help articles





#### Select Services & Features



### Webex Network Requirements Tool

# Quickly identify network requirements for deploying Webex App

Avoid researching multiple docs and help articles





#### Results



#### Validate Voice Domains

#### DNS

- ★ Verify DNS SRV and A records for service discovery
- If migrating from Jabber, records should already be in place but verify

#### Internal/External Voice Domains



- Can have multiple voice domains for different groups of users
  - But <u>must</u> be the same internally and externally for each group

#### · Reference Links:

- Cisco Collaboration Solution Analyzer
  - ➤ Use the "SRV checker" to check your public domains for the correct service records
- UC Manager Profiles in Cisco Webex Control Hub
- Deploying Calling in Webex App (Unified CM) Configure DNS SRV Records



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## Application Readiness Best Practices



#### **UC Premise Software**

Unified CM, Unity Connection, Expressway

 Critical to upgrade to version(s) that provide the required admin/user experience and meets all security requirements

Minimum:

<u>UCM</u>: 11.5(1)SU3 or 12.5(1) Expressway: X8.11.4 or X12.5.0

Unity: Same version as UCM servers

 Secure Calling - signaling & media (SIP OAuth):

UCM: 12.5(1) or later



Best Desktop, Mobile & User Experience (including SSO):

<u>UCM</u>: 12.5(1)SU7+ or 14.0(1)SU3+

- Minimum :12.5(1)SU3+ for iOS Push Notifications
- IP Phone/Webex Presence Sync

Expressway: X14+ later

Unity: Same version as UCM servers

MRA failover:

UCM: 14.0 or later

Expressway: X14.0 or later



#### **UC Premise Authentication**

Unified CM, Unity Connection

- Must use the same authentication method
  - Legacy SSO
  - OAuth SSO
  - Non-SSO

• Must use the same user credentials



#### **UC Premise SSO**

Unified CM, Unity Connection, Expressway



Enable for a consistent/simplified user experience

- Required on Expressway if enabled on CUCM for Mobile and Remote Access (MRA)
- Required on CUC if enabled on CUCM
- Provides the Best user experience: single set of credentials for ALL UC services
- Reference Links:
  - SAML SSO Deployment Guide for Cisco Unified Communications Applications: Release 11.5(1), Release 12.5(1), or Release 14
  - Mobile and Remote Access Through Cisco Expressway Deployment Guide: ("SAML SSO Configuration" section): X12.7, or X14.0.1
  - Cisco Unity Connection Quick Start Guide for SAML SSO Access: 11.x, or 12.x
  - SSO SAML Configurations & Configure SAML SSO on Cisco Unified Communications Manager with ADFS 3.0



#### UC Premise SSO OAuth Token Refresh

Unified CM, Unity Connection, Expressway

★Enable for best user login experience

Reference Links:

(Note: The following links reference Jabber documents but they also apply to the Webex App)

- System Configuration Guide for Cisco Unified Communications Manager, Release 12.0(1)

  See "Configure Refresh Logins for Cisco Jabber" in the "Cisco Jabber Configuration Task Flow" section
- Deploying OAuth with Cisco Collaboration Solution Release 12.0

For CUCM see "Enabling Unified CM & IM&P" section on page 15
For Unity see "Enabling Unity Connection" section on page 15
\* Parameter for both CUCM and CUCM is 'OAuth with Refresh Login Flow'



### 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



#### Migration Activities

#### Migration Prep:

- Discover/Design & Deploy/Configure
  - CUCM
  - CUC
  - Expressway
  - □ App

#### Migration:

- Migrate
- Decom



# CUCM Configuration Best Practices



#### **CUCM Configurations**

- Review <u>Deployment guide for Calling in Webex App (Unified CM)</u> for CUCM features/capabilities with the Webex App
  - Push Notifications
  - Moving a Call to a Meeting
  - Emergency Calling (E911 or RedSky)
  - Multiline / Multi Call Window
  - Move Call to Mobile
  - Appendix
    - Supported Jabber Config XML policy parameters
    - Calling protocol handlers
  - Etc...



# App Deployment Best Practices



#### Webex App

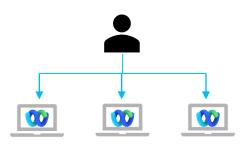
#### User Install



- User downloads the .exe/.dmg installer from Webex.com
- User runs the installer
- Webex App is installed to C:\users\userID\AppData\Local\CiscoSparkLauncher
- Admin permissions NOT required

https://www.webex.com/downloads.html

#### **Admin Install**



- Admin installs using MSI/DMG file
- Leverage deployment tools (e.g. SCCM)
  - msiexec /i webex.msi ALLUSERS=1 /quiet
- Webex App installed to C:\Program Files\Cisco Spark\
- Admin permissions ARE required
- Required to support QoS best practices

https://help.webex.com/en-us/article/nw5p67g/Webex-App-%7C-Installation-and-automatic-upgrade

\* Recommend using the default deployment locations



# Contact Migration Best Practices



#### **User Contact Migration**

- Migrating users' contacts from Jabber to Webex App
  - Normal Contacts
  - Custom Contacts
- Migration Options:
  - End-user driven
     Configure Users to Move Jabber Contacts and Common Settings to Webex
     Jabber | Move Contacts and Common Settings to Webex
  - Admin driven
     Migrate Personal Contacts to Webex





#### Option 1: End-user Driven Migration

- Admin enables for Users
- Users migrates their Jabber contacts and common preferences to the Webex App

Note: Webex App must be installed on user's laptop prior to starting the migration

#### Contacts:

- Directory Contacts
- Custom Contacts and photos
- XMPP Federated Contacts

#### Preferences:

- Chat notification settings (including mute all)
- Call notification settings (including mute all)

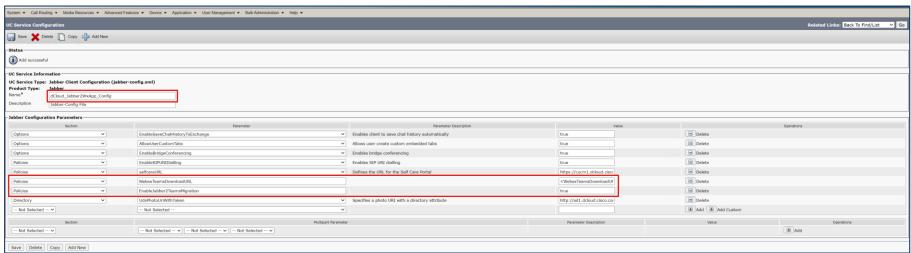
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- Audio device and video device selection (except for VDI)
- Video preferences for incoming calls (start with video or no video)



#### Option 1: End-user Driven Migration

**UC Services** 



- Add migration parameters (EnableJabber2TeamsMigration and WebexTeamsDownloadURL) to the UC Service profile on UCM:
  - Use existing UC Service
  - Create a new UC Service

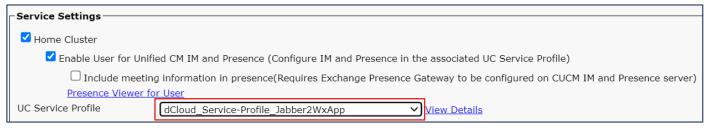


#### Option 1: End-user Driven Migration

#### Service Profile



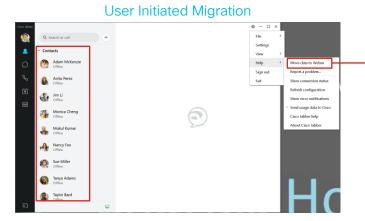
#### **End User Configuration**



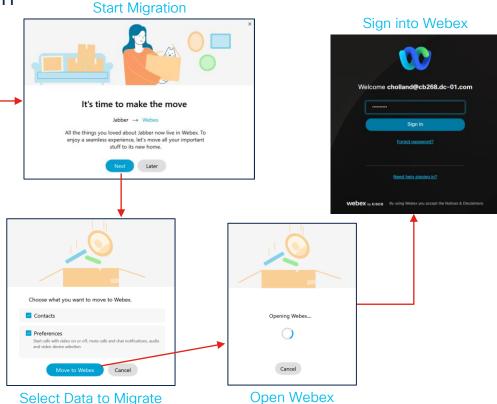
- Set the new UC Service as the 'Jabber Client Configuration Profile' in a NEW Service Profile
- Apply the new Service Profile to users as you migrate them



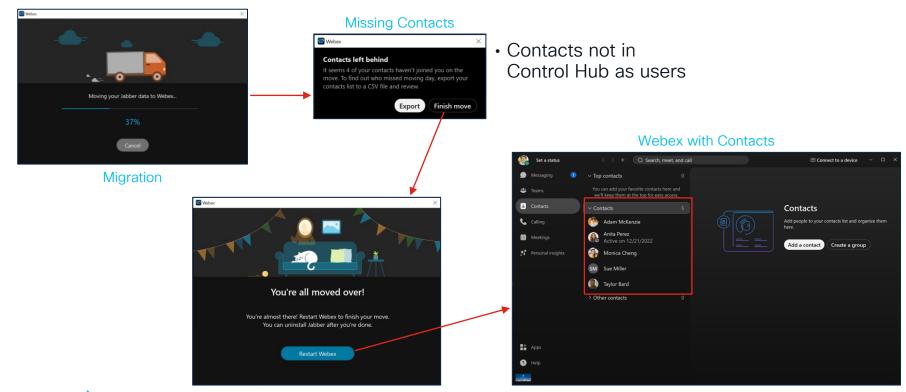
Option 1: End-user Driven Migration



- Migration automatically starts for user between 5 minutes to 3 hours after user signs into Jabber
- User can initial migration



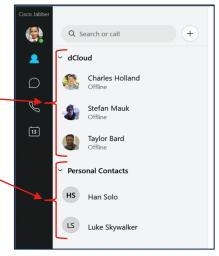
#### Option 1: End-user Driven Migration



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#### Option 2: Admin Driven Migration

- Admin migrates users' Jabber contacts to the Webex App using Control Hub tools
  - IM&P Contacts (Normal Contacts)-
  - Non-Presence Contacts (Custom Contacts)
- Common user preferences are NOT migrated



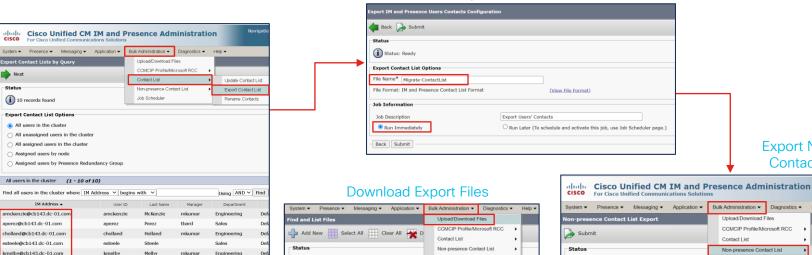
**Jabber Contacts** 

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Option 2: Admin Driven Migration

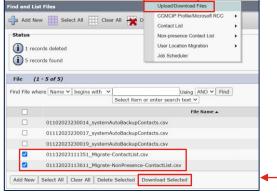
Marketing

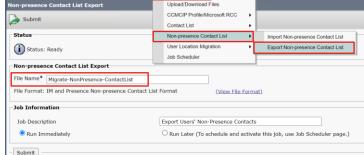
Marketing



**Export Non-Presence** Contacts (if required)

Diagnostics ▼ Help ▼





**IM&P** - Find Contacts

Cheng

Barretta

Mauk

mcheng

rbarretta

rfilice

smauk

tbard



mcheng@cb143.dc-01.com

rbarretta@cb143.dc-01.com

smauk@cb143.dc-01.com

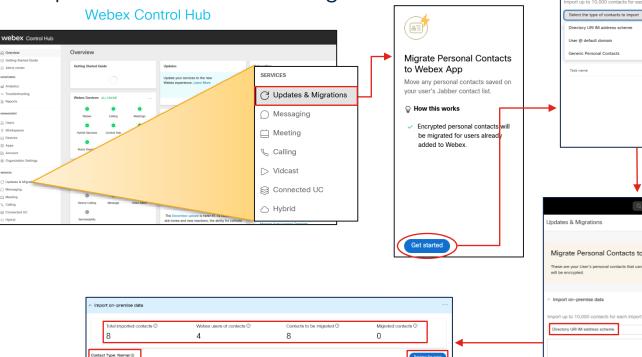
tbard@cb143.dc-01.com

rfilice@ch143.dc-01.com

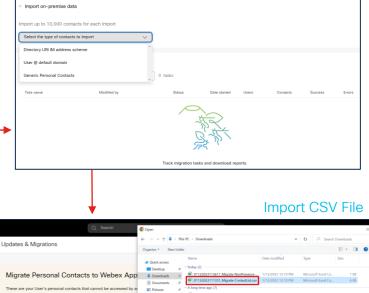
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**Export Contact List** 

Option 2: Admin Driven Migration



#### **Import Options**



Call Volume Status, Jabber Win Model, 16... 11/14/2022 4:10 PM Call Volume Status\_UCSF Model\_166846...

© Call Volume Status Jahher Series 166846... 11/14/2022 4:07 PM Federalet Adoption 1668463504497376... 11/14/2022 4:05 PM

File name: 01132023111351\_Migrate-ContactList.csv

10/4/2022 8:50 AM

11/17/2020 2-25 PM

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Drag and drop contact cay file here or browse for files to import Unified CM IMED data

■ Videos

This PC

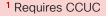
Network

**User Contact Migration Option Create Migration Tasks** Option 2: Admin Driven Migration Migrate Records You are migrating 8 contacts for 4 users. Provide a task name to start synchronization. All migration progress will be saved Migrate user's personal contacts under this name. Total imported contacts (1) Webex users of contacts ① Contacts to be migrated ① Migrated contacts (1) Task name Start Jabber-ContactList Migration Confirm and Migrate 8 contacts are ready to be migrated to the Webex app Migrate now to continue with these records You're all set! Track migration progress Q Search Filter by status 1 tasks Contacts in Webex App Modified by Date started Contacts Success Set a status Jabber-ContactList Charles Holland Jan 13.2.. Q Search, meet, and call Messaging v Top contacts Migration Status Teams **Normal Contacts** 2 Contacts Track migration progress Charles Holland Calling Repeat process for Q Search Filter by status √ 1 tasks Stefan Mauk Non-Presence Task name Modified by Errors N Personal insights Taylor Bard Contacts Jabber-ContactList Charles Holland Jan 13,20. > Other contacts Personal Contacts HS Han Solo LS Luke Skywalker **Custom Contacts** 

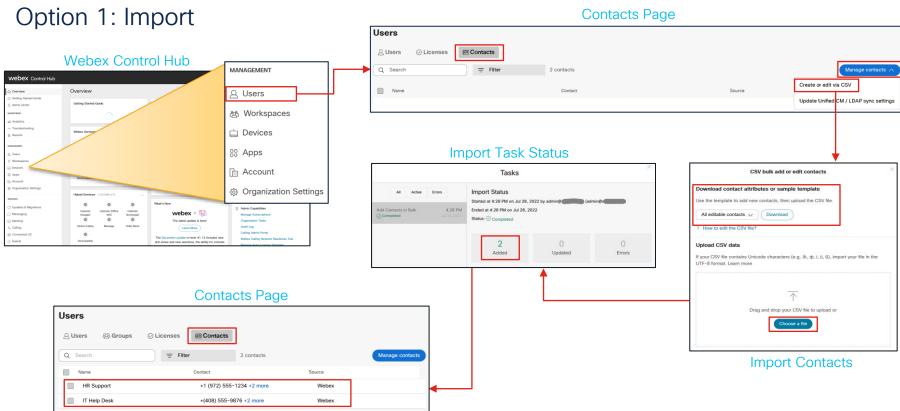
#### **Org Contact Migration**

- All users can search for and call Organizational contacts (e.g. HR, IT Support, etc.)
- Webex Admin manages (add/modify/delete) the organizational contacts
- Migration Options:
  - 1. Import (CSV file)

    Manage organization contacts in Control Hub
  - 2. Sync (from UCM or LDAP/AD)<sup>1</sup>
    Synchronize User and Organizational Contacts

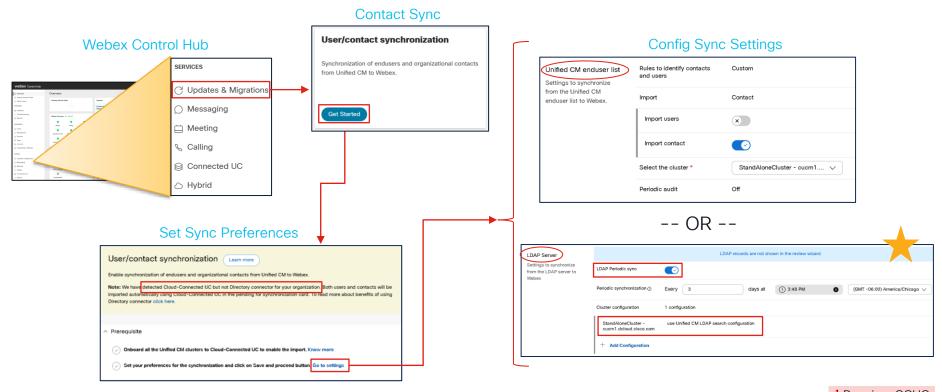






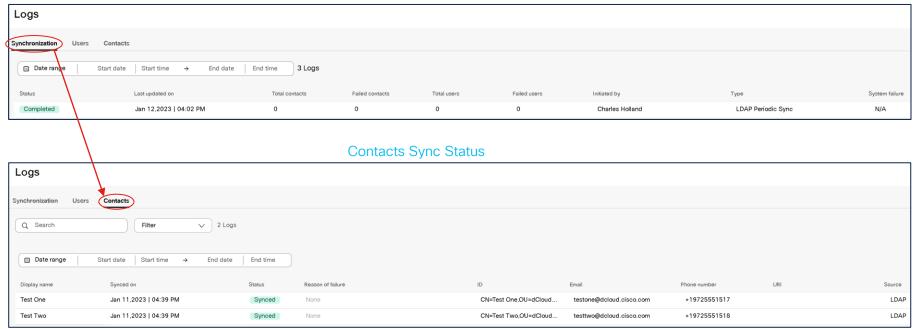


Option 2: Sync<sup>1</sup>



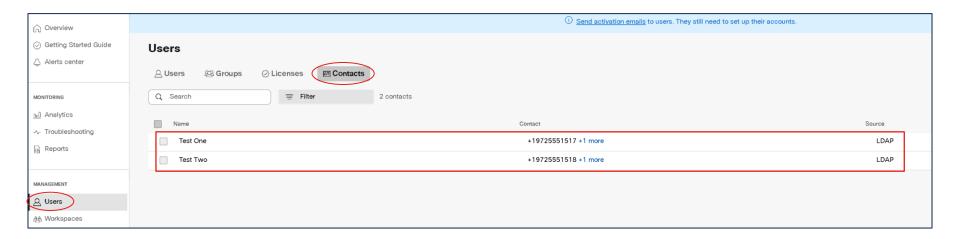
Option 2: Sync<sup>1</sup>

#### Synchronization Task Status





Option 2: Sync<sup>1</sup>

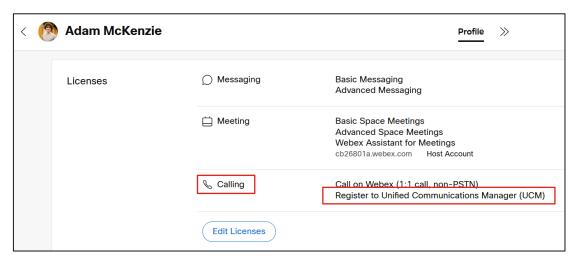




# User Migration Best Practices



Enable UCM Calling licenses for users migrating



This can be set with Auto License templates (Recommended)

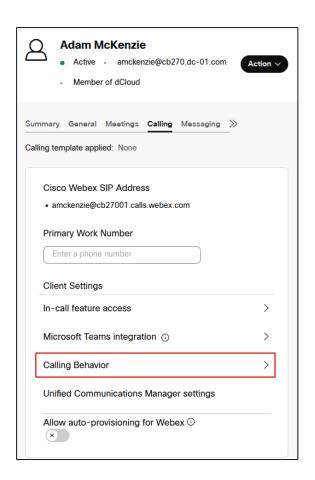


#### **User Calling Behavior**

Sets voice domain

#### Apply at:

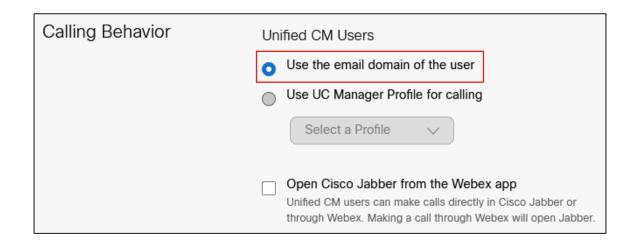
- Org Level
- Group Level
- User Level





#### Org Level

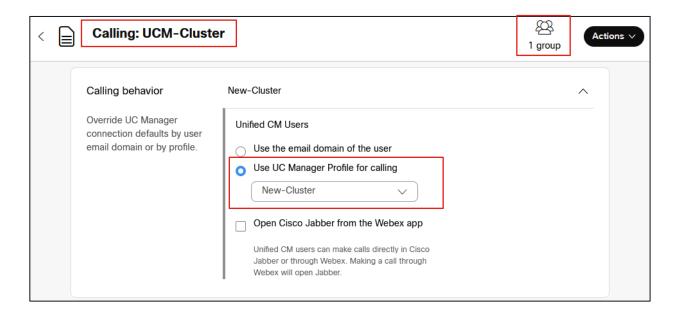
Services > Calling > Client Settings > Settings: Calling Behavior





#### Group Level

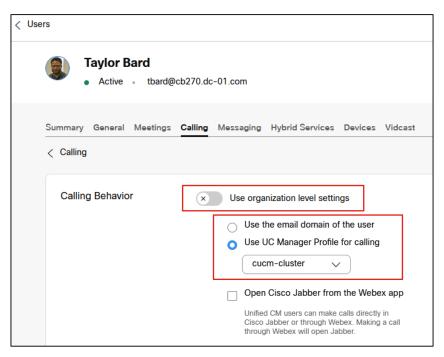
Services > Calling > Client Settings > Templates: Calling Behavior





#### Individual Level

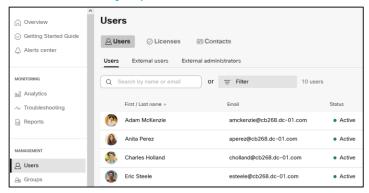
Management > Users > {User} > Calling: Calling Behavior





#### **User Migration Options**

#### Manually update individual users



#### Bulk/Batch updates with templates



#### Migrate Jabber to the new Webex (Control Hub Tool)<sup>1</sup>

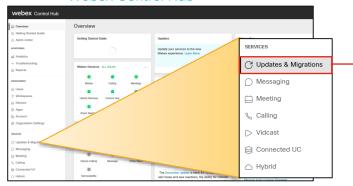


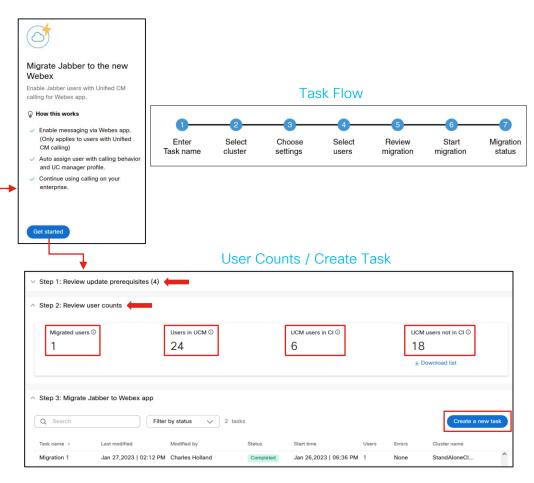
<sup>1</sup> Requires CCUC



## Migrate Users Using the Control Hub Tool

#### Webex Control Hub

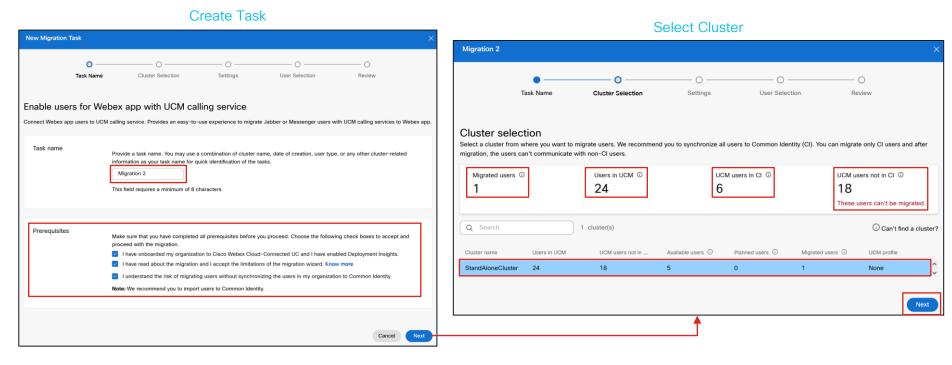






## Migrate Users

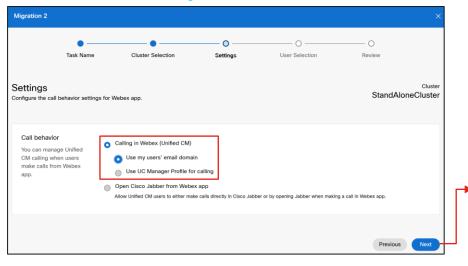
# Using the Control Hub Tool

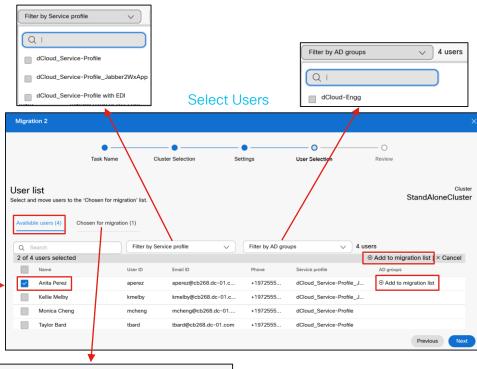


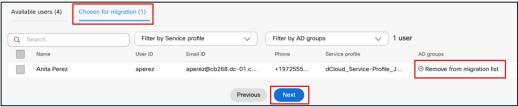


# Migrate Users Using the Control Hub Tool

Settings - Call Behavior





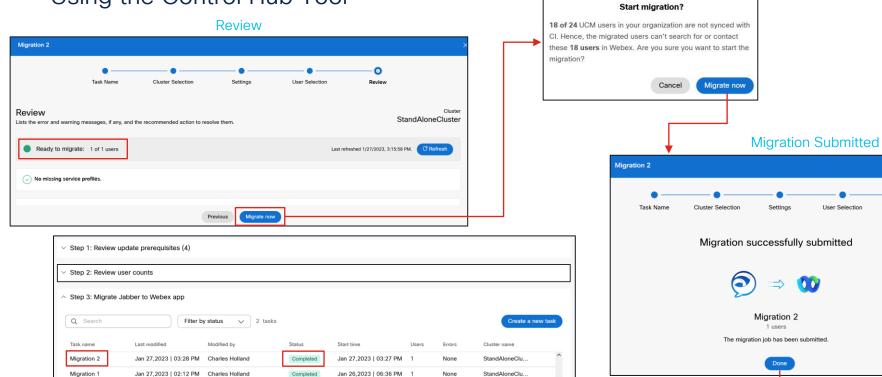




Review

### Migrate Users

#### Using the Control Hub Tool

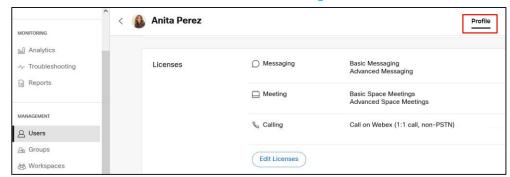




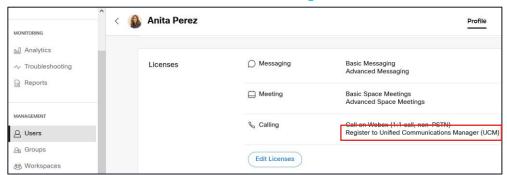
User Selection

## Migrate Users Using the Control Hub Tool

#### User's License Before Migration



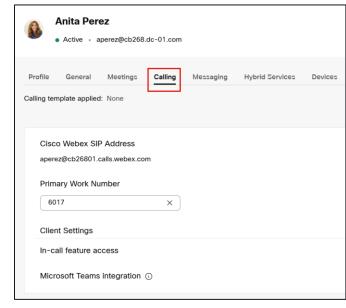
#### User's License After Migration



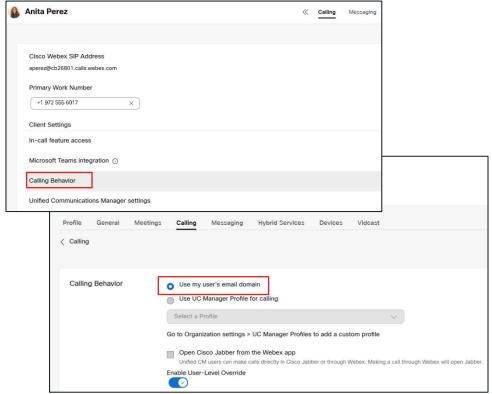


## Migrate Users Using the Control Hub Tool

#### User's Calling Settings Before Migration



#### User's Calling Settings





## Decommission



#### App and Sever Decommission

- Remove applications from from users' devices
  - Jabber Laptop, Mobile
  - WDA Laptop

- Decommission UC servers not required post-migration:
  - IM&P
    - Archive persistent chat



## Conclusion





#### Key Take Aways

- Start now
  - Connect on-prem to Webex Cloud
  - Complete Base Webex configuration
- Structured, repeatable approach
- Address longer activities (SSO, User Directory Sync, etc.)
- Leverage tools and/or partner services

# Additional Education



#### Cisco Live US 2023

#### Other Recommended Sessions

- BRKCOL-2198: Deploying the Webex App to your Organization
- BRKCOL-2007: Authentication, Authorization and Provision for Cisco Collaboration
- BRKCOL-3009: Troubleshooting UCM Calling in the Webex App Like a TAC Engineer
- BRKCOL-3012: Troubleshooting the Webex client Login
- BRKCOL-2057: Understanding Network Security Requirements for Webex Traffic
- BRKCOL-3117: Troubleshooting Webex Authentication and Provisioning
- BRKCOL-2006: Converting Meeting Site Management from Site Admin to Control Hub



#### Fill out your session surveys!



Attendees who fill out a minimum of four session surveys and the overall event survey will get **Cisco Live-branded socks** (while supplies last)!



Attendees will also earn 100 points in the **Cisco Live Challenge** for every survey completed.



These points help you get on the leaderboard and increase your chances of winning daily and grand prizes



# Continue your education

- Visit the Cisco Showcase for related demos
- Book your one-on-one Meet the Engineer meeting
- Attend the interactive education with DevNet, Capture the Flag, and Walk-in Labs
- Visit the On-Demand Library for more sessions at www.CiscoLive.com/on-demand



## Thank you



# Cisco Live Challenge

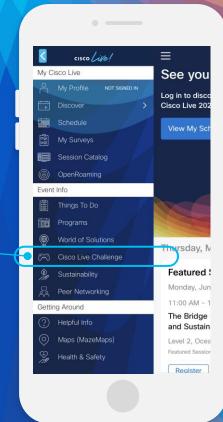
Gamify your Cisco Live experience! Get points for attending this session!

#### How:

- Open the Cisco Events App.
- 2 Click on 'Cisco Live Challenge' in the side menu.
- 3 Click on View Your Badges at the top.
- 4 Click the + at the bottom of the screen and scan the QR code:







# Let's go cisco live! #CiscoLive