Upgrade to Cisco Unified Communications Manager Release 15 with Confidence!



Cisco Webex App

Questions?

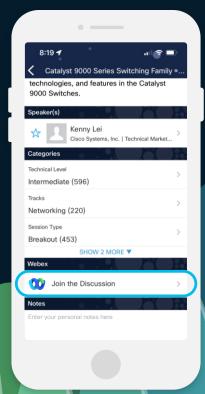
Use Cisco Webex App to chat with the speaker after the session

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 7, 2024.

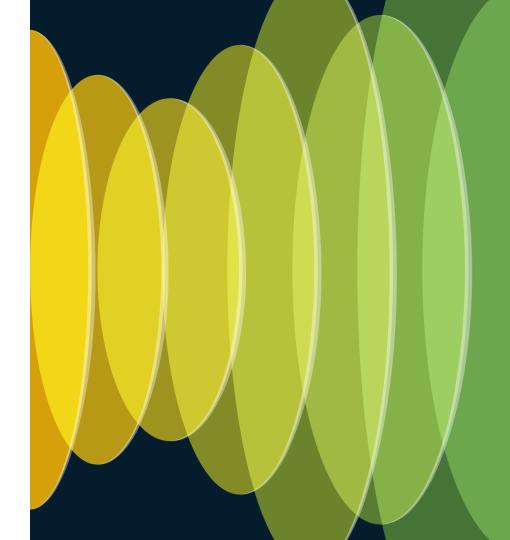
https://ciscolive.ciscoevents.com/ciscolivebot/#BRKCOL-2076





Join us on Slido!





cisco live!

Agenda

- Cisco Calling Overview and Strategy
 - Options for customers in their transformation journey
- Cisco Unified Communication Solution Release Plan and Roadmap
- Getting Started Planning to go to UCM 15
- VMware / Hardware Specs & Readiness
- How to go to UCM 15? Install, Direct Upgrade, Direct Migrate
- Conclusion



Cisco Calling

30M+

50M+
Cisco Cloud
(Cisco and partner hosted)

15M+
Webex Calling

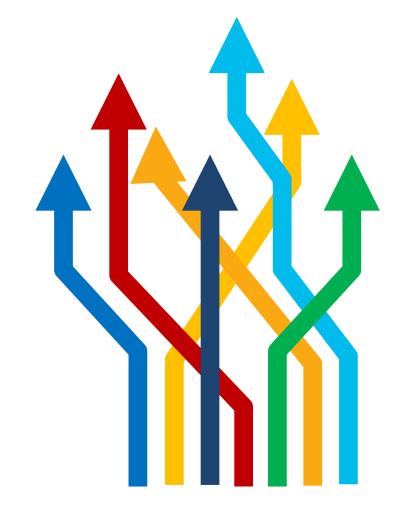
Market leadership

Customer choice and flexibility

Commitment to ongoing investment

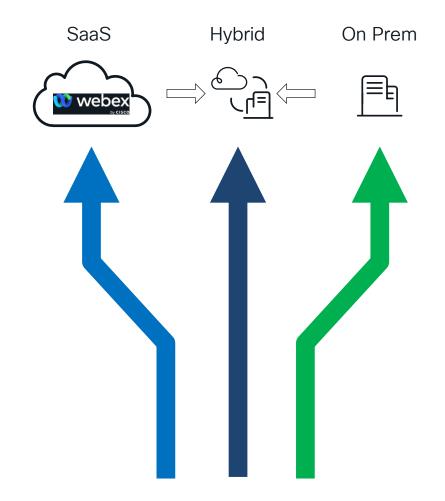


What is the WAY *Forward?*

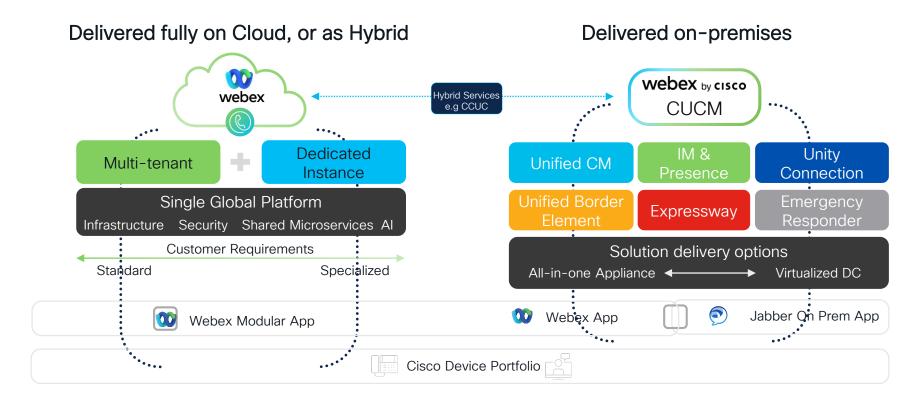




Cloud FIRST but NOT Cloud ONLY....

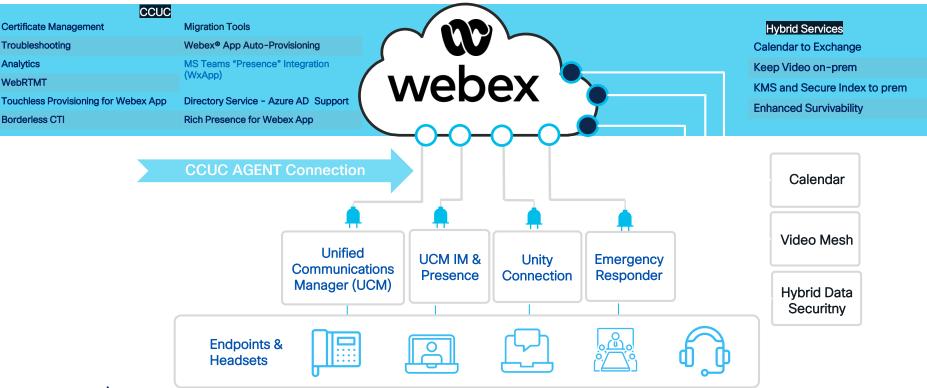


Calling in Webex Suite - Flexible options



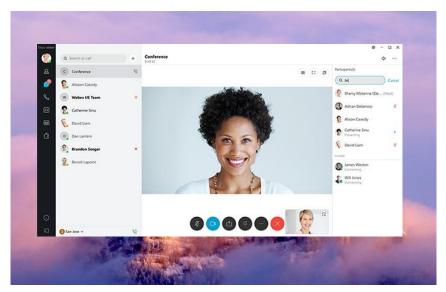


Webex Cloud-Connected UC & Hybrid Services



Flexible Client Options - Calling features you need, available anywhere



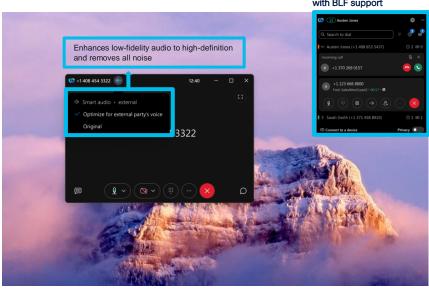


Air-gapped deployments



Webex App

Companion Multi-call Window with BLF support



Hybrid deployment with UCM or Webex Calling

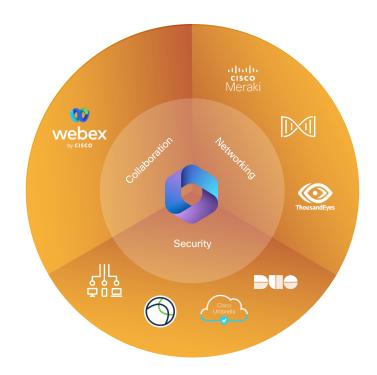
Latest AI and innovations through Webex Platform



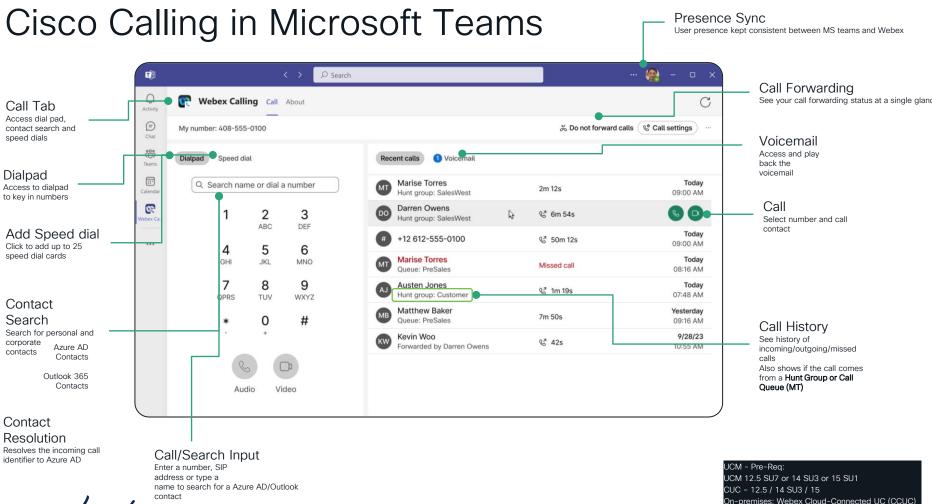
Living in a joint Microsoft and Cisco World

What are the Options?

- I need some services from both vendors
- How can I give my users the best experience?
- How can I maximize my investment?
- What services can I get from Cisco Webex?
- How can these applications interoperate with Microsoft?



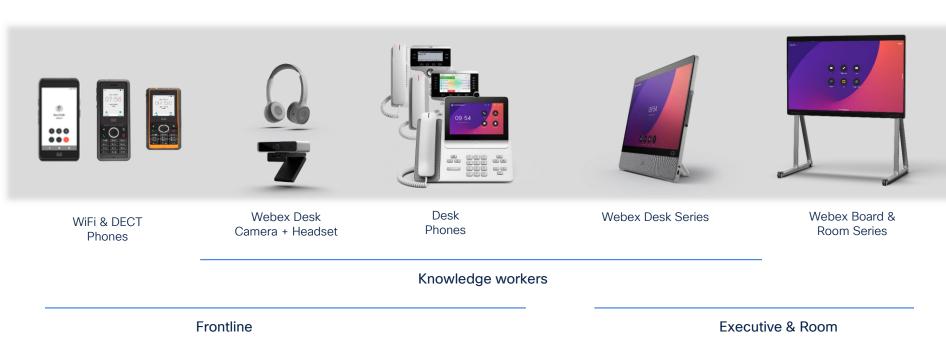




cisco Wel

Immersive calling and collaboration devices

For any worker, anywhere, any device, including 3rd party devices



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INTRODUCING

Cisco Desk Phone 9800 Series









Desk Phone 9841

Desk Phone 9851

Desk Phone 9861

Desk Phone 9871

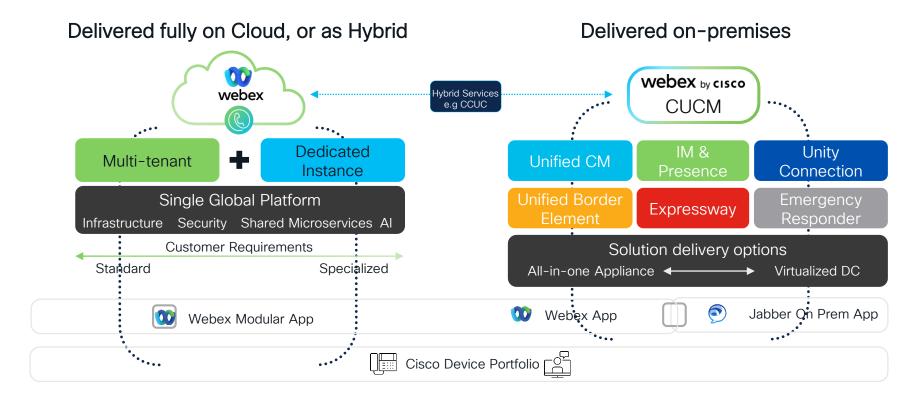
SECURE | MANAGEABLE | SUSTAINABLE

MORE THAN A PHONE. POWERED BY PHONEOS.



BRKCOL-2076

Calling in Webex Suite - Flexible options

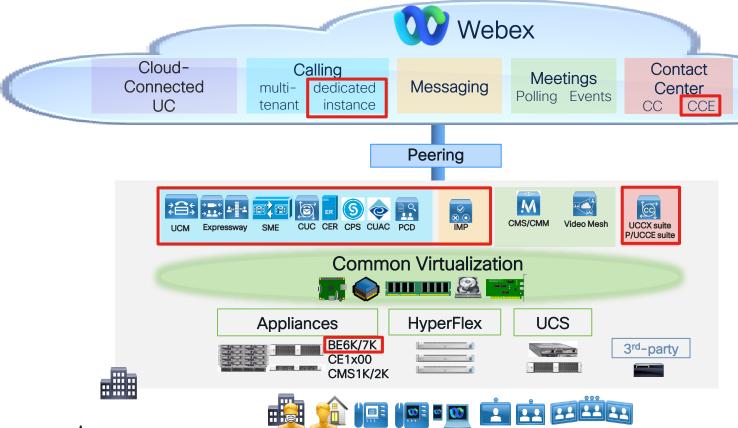




UCM technology in Collaboration Portfolio

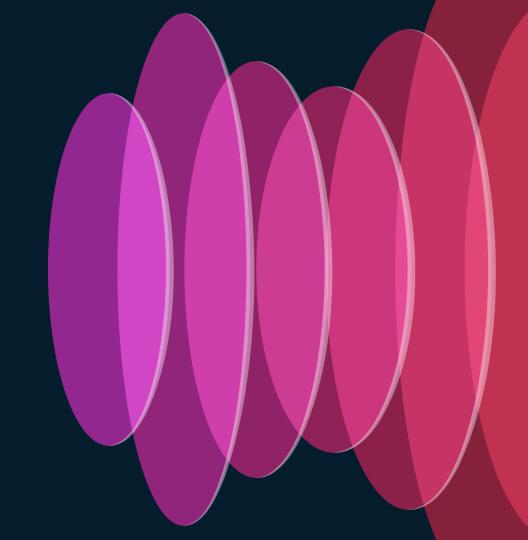


Where UCM technology is used





UCM Release Strategy



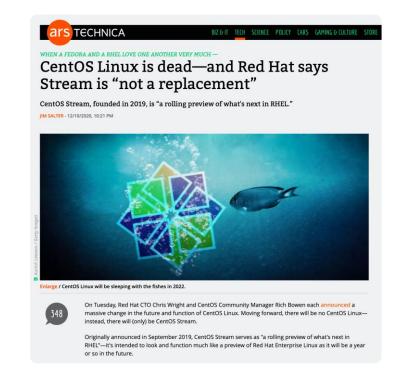
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End of Support for CentOS Linux distro

Overview

- Support for CentOS Linux was expected to continue until at least 2029
- However, the CentOS Project announced the discontinuation of CentOS in 2020
- As a result of CentOS discontinuation, endof-support will occur in 2024
- CentOS will not be a reliable platform for business use after end-of-support
- Cisco is focused on providing customers with a reliable and stable platform for the future





Cisco UCM - Release Strategy

End-of-life milestones by version

- Products that this timing applies to: SME - Session Management Edition
- UCM Unified Communications Manager IM&P - Instant Messaging & Presence service
- CUC Unity Connection
- CER Cisco® Emergency Responder
- PCD Prime Collaboration Deployment
- Elements of Webex Calling Dedicated Instances, UCMC-G. Webex Contact Center Enterprise

UCM 11.5

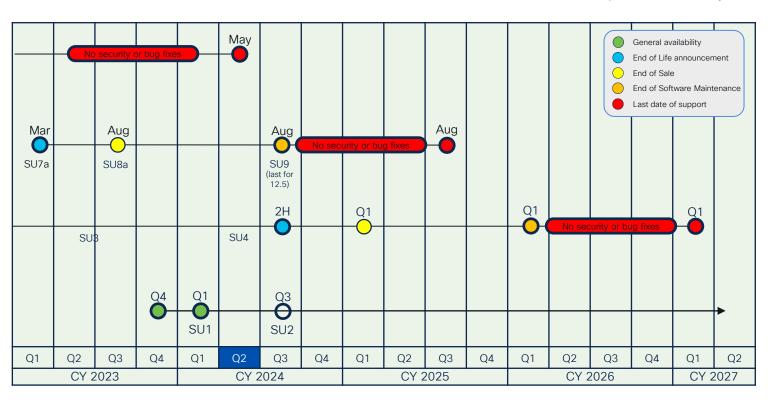
UCM 12.5

UCM 14

These dates are subject to change.

UCM 15

These dates are subject to change.





Cisco UCM 15 SU 1 now generally available

Coming soon to Dedicated Instance End of Support of 11.5 (LDOS 31st May 2024)

End of Support of 12.5 (LDOS 31st Aug 2025)

Find more about 15 SU1 GA - Here!













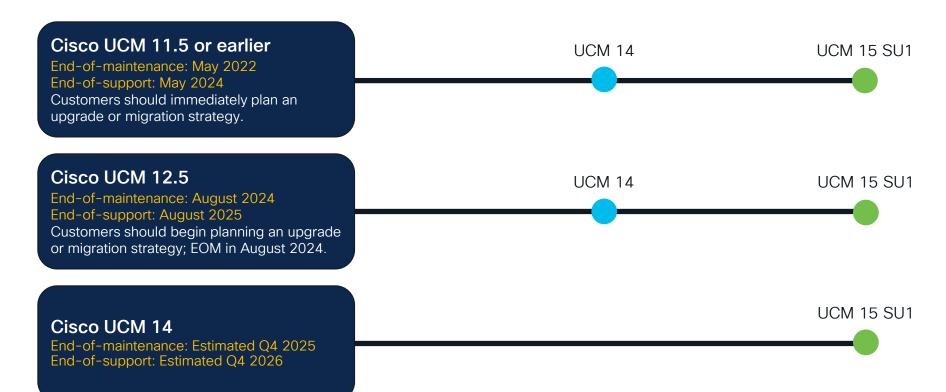


		ER		→ !! ←
UCM+IMP 15 SU1	Unity Connection 15 SU1	CER 15 SU1	PCD 15 SU1	Expressway X15.0.1
Release Notes	Release Notes	Release Notes	Release Notes	Release Notes
Pre-upgrade Check COP	Pre-upgrade Check COP	Pre-upgrade Check COP		
<u>Upgrade Guide</u>	<u>Upgrade Guide</u>	<u>Upgrade Guide</u>	Admin Guide	
Security Guide				
SW Compatibility Matrix				

Collaboration System Release 15 Compatibility Matrix
www.cisco.com/go/cst
www.cisco.com/go/quotecollab



Upgrade options for Cisco UCM

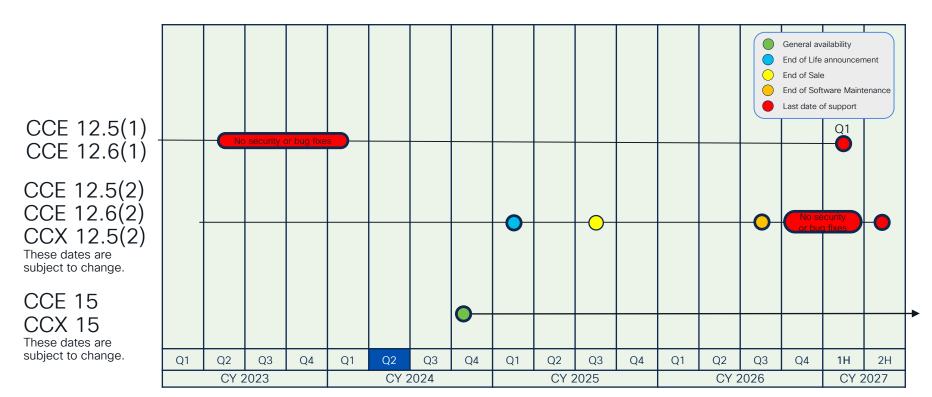




Cisco CCX/CCE - Release Strategy

End-of-life milestones by version

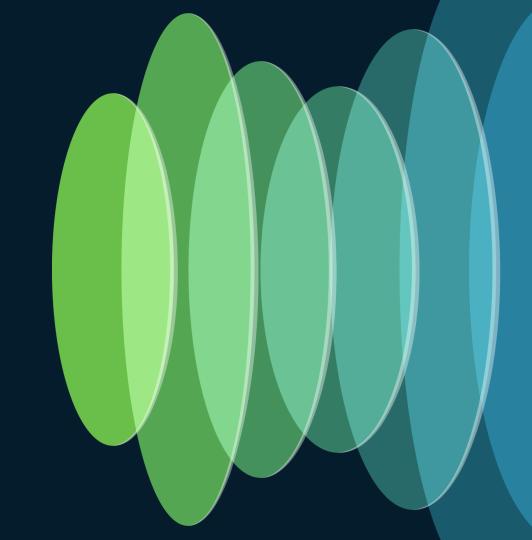
- CCE 12.6, CCE 12.5, CCX 12.5 are compatible with CUCM 15.
- This EOL cycle applies to the entire CCE 12.6 / 12.5 solution (Windows and VOS components)



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UCM 15 and Applications



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UCM Strategy - Continued investment in CUCM

Unified Communications Manager Development Themes Simplifying UC administration Enhancing security and compliance Delivering the best user experiences Connections to Cloud



CUCM 14 Content

Base for CUCM 15

	Simplified Administration	Security / Compliance	Better User Experience	Connected to Cloud
14	Simple Phone refreshHigher cluster scaleFresh Install w/ Data import	 E911 compliance Simple Phone Security (oAuth) and revocation Simple certificate mgmt. 	 MRA HA – Expressway & LTE/Wifi failover Jabber zero downtime Headset based EM login 	 Cloud-Connected UC - Analytics IM&P Open Federation Unified Messaging w/ Google and O365
14 SU1	 Serviceability for Jabber/ MRA, Persistent chat mgmt TFTP large file download BAT support for VG 420 	 E911 for remote worker PLR Support for licensing SHA-2 for SCCP analog gw and conf bridge 	Wx App Self provisioningIPv6 over MRAOpus transcoding	CCUC - Jabber App Migrtaion, Self Enable, Analytics, Certificate Management. Operations Dashboard, WebRTMTm
14 SU2	 Expressway Smart Licensing (w/ PLR/SLR) Cluster s/w location for simple upgrades 	 National suicide prevention Hotline (988) Redsky E911 loc service EST for Cert enrollment Authenticated SMTP 	Borderless CTI for MRAAccessibility enhancements	 CCUC - Troubleshooting, Touchless provisioning of Webex Ap, Migrations,
14 SU3	 Classic SRST and Webex Calling SGW colocation. CUC Scale >100K 	 DTMF interworking for Secure Media MTP HA for oAuth Refresh Token renewal CRL enhancement ExpWay - ECDSA ExpWay - Select > 2500 	 iOS Local Push Notification Presence, DND and Call History sync w/ Wx App VDI Support for Webex app Webex Calling Dedicated Instance - Remote Survivability Node 	 CCUC - Borderless CTI, Presence Synchronization, Azure AD support for UCM/CUC, DND Sync MS Teams integration - Call History, Presence, Voicemail

Quality – Automation, Library/Platform updates Cisco Product Security Baseline, Federal Certification

CUCM Solution - 15

User Experience

- Improved Webex App experience with persistent CUCM login flow
- Push notification service stability enhancements
- Enhanced noise cancellation for Voicemails

Admin Simplicity

- Core Linux Transition
 - Python 3
 - IDS
 - Kernel crypto
 - FIPS Toolkit
- 64-bit Support
- Support for VG410
- New devices for Switch Port Tracking

Security & Compliance

- Certificate based Multi Factor Authentication for RTMT
- FIPS 140-2 certification
- USGv6 R1 certification

Bridges to the Cloud

 Microsoft Teams integration

Low new Feature Content Focus on Platform and Quality

Accelerate migration to CUCM 15

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CUCM Notable Roadmap

User Experience

- Jabber blur backgrounds
- Multi-line for Webex App mobile
- Webex App centralized call history
- Webex Al Codec support
- Expressway 88XX and 78XX Series Phone Failover
- Native Transcription service

Admin Simplicity & Platform Updates

- IPv6 Support
- PAWS API s for Simple Upgrades
- Enhanced survivability Additional nodes, and TAPI support
- Megacluster Survivability via Higher Node Count.
- Higher scale/density (via 64-bit-app)

Security & Compliance

- Enhanced Accessibility
- TLS 1.3
- DOD-IN APL Certification
- Secure Communications Interoperability Protocol (SCIP) support – UCM & CUBE
- FIPS 140-3 support
- Common Criteria
 Certification UCM &
 Expressway
- IPv6 only for UCM & CSR apps

Bridges to the Cloud

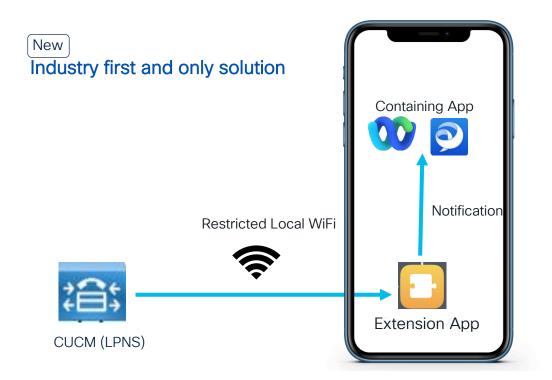
Microsoft Teams
 Integration (via CCUC) –
 Call History, Voicemail, Bidirectional Presence, Call Forwarding Status and more

Webex Cloud-Connected UC

 Directory Services (Azure AD support) – near realtime delta sync based on Webex CI Notification services



iOS Local Push Connectivity for calls (LPNS)



Benefits

 Reliable & Secure way to notify Webex App / Jabber users on iOS devices of incoming VoIP call when iOS devices operate in a WiFi constrained network when there is no internet connection and doesn't have access to APNs

Key Features

- To the user, LPNS and APNS notifications will be identical
- Mission critical / Time critical Local notifications get delivered when App is suspended and running in background
- Persistent connectivity to LPNS service

Supported Releases:

- Cisco UCM: 15, 14SU3 onwards
- Webex App 43.6
- Jabber: 14.2



Improved Webex App experience with persistent CUCM login flow

Problem Summary

- Webex app registered to CUCM Registered prompts user to login every 60 days to maintain phone service.
- User may cancel login for phone service and still have access to messaging, meetings, and internal calls as the account is still authenticated with IdP on Cisco Webex cloud
- If the user on Webex app is not authenticated by CUCM:
 - Phone service disconnects which results in Missed calls
 - Mixed calling User Experience. Internal calls may work as connectivity to Cisco Webex cloud is maintained, but PSTN calls don't.

Solution

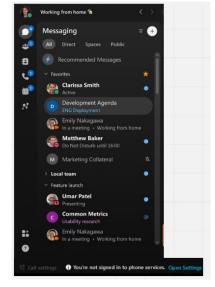
- •The refresh token in Webex App is automatically renewed without user intervention so that the user does not get logged out of the phone service.
- •Expressway will be able to pass through the auto-renew parameter for refresh token so that the clients will renew the tokens automatically

Benefits

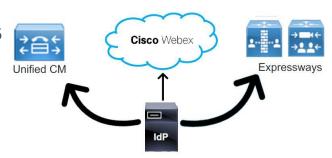
•Improved Webex App user experience resulting in end users not missing calls due to phone service disconnects

Supported Releases:

- UCM 15, Expressway X15
- Webex App 43.8



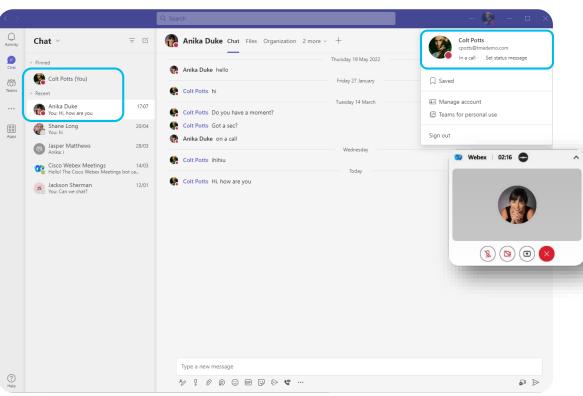




MS Teams: Bi-directional Presence Sync

User's presence status on either application (MS Teams / Webex App) will now be kept in sync with the other application for the below presence states:

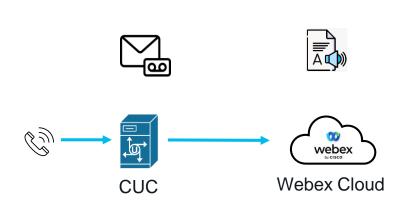




Webex Cloud-Connected UC (CCUC) required Supported Releases

- UCM 15, 12.5 SU7+ , 14 SU3+
- CUC 15, 12.5, 14 SU3

Cisco Unity Connection SpeechView - Migration to Webex in-house Transcription Service



https://gobeta.webex.com/key/cucm

The value of the feature to the customer/what does it solve for (WHY):

With SpeechView, users can receive both voice mail and its transcript in their email. This feature is useful when users cannot listen to voice mail but have access to email.

The 3rd party service used for transcription is shutting down end 2024.

Solution:

Migration of SpeechView transcription service from third party service to Webex in-house transcription will enable Cisco to continue the service, reduce the complexity of configuring SMTP and leverage the capabilities of Webex.

Specific Platform releases/dates:

CUC 14 SU4: July 2024 CUC 15 SU2: Sep 2024

Pre-requisite: Cisco Unity Connection onboarded to Webex Cloud-

Connected UC (CCUC)

Caveats/Limitations on feature:

Transcription available for English and specific foreign languages.



Cisco Jabber Roadmap

Cisco Jabber 14.3 - Dec CY23

- macOS Sonoma support
- Android 14 support
- Replace IE with Microsoft Edge (WebView2)
- Outlook Calendar integration for CMS meetings
- [Android] Cisco Jabber presence status changes to "Away" when it is in the background

Cisco Jabber 14.3.1 - March CY24

- Apple local push notifications over private LTE/5G network
- Admin control to hide all room for persistent chat

Cisco Jabber 15.0 - 2H CY24

- Accessibility enhancement
- TLS 1.3 support
- Secure LDAP channel binding
- Compliance
 - Common Criteria Certification
 - DOD-IN APL Certification



Jabber to Webex App

Webex App offers cloud accelerated experience and cloud speed innovation

> Integration with Webex Meetings & Messaging

Webex Device Proximity (control and sharing capabilities)

Advanced AI (e,g, Near end & remote PSTN noise removal)

Advanced calling features with Webex Calling linked to cloud service integration (RedSky E911, Call Recording, WebexGo Mobile etc.)



		Webex App (Unified CM)	Cisco Jabber
	IM-only Share		
Messaging	Remote Desktop Control (Mouse & Keyboard)	☑	☑
Device	Desk-phone Control	◩	ゼ
	HD Video & Audio Softphone Contacts (Corporate, Personal, Local Search)	전	☑
	In-a-call Presence, DND	☑	
	Hold/Resume, Consultative Transfer, Conference	\square	
	Call History	Ø	
	Voicemail (Visual & MWI & Call VM)	Ø	☑
	Hunt Group	₩	
	Call Pickup	◩	☑
Calling	Call Park	☑	☑
	Extend & Connect & Dial-via Office	⊠ ⊠	⊠ ⊠
	In-Call Sharing Call Recording	⊠	☑
	Multi-Line	M M	☑
	FECC (Far End Camera Control)	Ø	◩
	ICE Media Optimization	_	_
	3 rd Party Headset Control	ゼ	Ø
	CTI-Control by Other Application	\square	
	Enterprise Contact Center (UCCE/X) Support	☑	☑
	Virtual Desktop Integration (VDI)	Ø	☑



Webex app on UCM calling Roadmap

Q1CY24

 Far-End Camera Controls (FECC) support dual camera

Desktop

 High-Definition audio for external calls (enhance low fidelity audio)

Q2CY24

Desktop

- Multi-Call Window Enhancements

 docking, resize, HD-voice
 support
- Hide recording option on Webex app for CTI application-controlled recording

Mobile

- High-Definition audio for external calls (enhance low fidelity audio)
- Disable Calling tab on mobile for those customers who don't deploy MRA

Q3CY24

- Common Call History across devices
- E911 LLDP Support

Desktop

 Shortcut key to copy number outside of Webex app and initiate a call

Mobile

Multiline on mobile

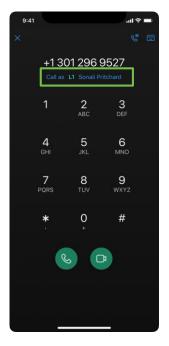
Multiline on Webex App mobile

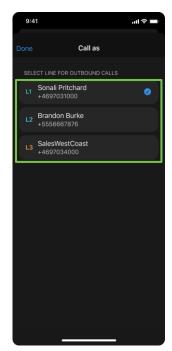
Enables enterprise power users to handle multiple calls simultaneously, increasing efficiency and productivity

- Enhanced User Experience
- Up to 8 lines supported
- o Android, iOS devices (mobiles and tablet)

Specific Platform releases/dates:

- o Webex App on mobile 44.9
- o UCM:15 SU2







Webex Smart Audio -HD Voice

HD Voice improves quality of incoming calls by

- 1) removing background noise
- 2) converting narrowband audio to wideband for improved speech intelligibility.

Incoming caller audio type	HD Voice Enhancement
Narrowband (e.g., PSTN G.711)	Noise removal & narrow-to-wideband conversion
Wideband	Noise removal



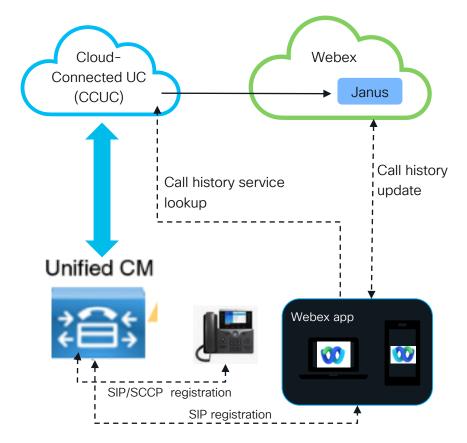
Demo Video





Common Call History (UCM)

- With local call history, when users are not signed in to the Webex app on one device, it causes inconsistency across the devices.
- With this feature, users will get the synchronized call history across Webex apps and devices which are registered to UCM.
- Pre-requisite:
 - Webex Cloud-Connected UC (CCUC)
 - UCM 14 SU4 / 15 SU2
 - Webex app 44.9





Multi Call Window - Calling Dock

- While users greatly appreciate the convenience of having the floating Multi Call Window accessible for making and handling calls, some users may prefer to conceal it and then effortlessly reopen it as needed temporarily.
- Docking will allow users to pin the window to the edge of the screen and easily reopen it.
- Multi-call window now is referred to as "Calling Dock"
- Windows only (Mac coming later).





SpeechView - Transition to native Webex solution



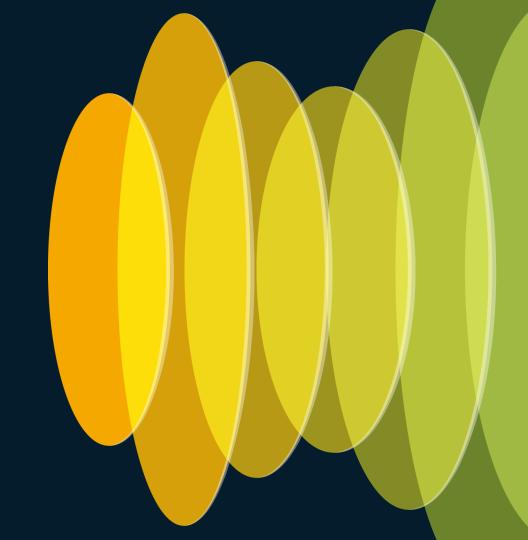
- SpeechView, enables users to receive voice mail transcript in their email so they can read through their voicemail instead of listening to it
- The 3rd party Cloud service used for transcription is shutting down end of CY 2024 (Dec)
- UCM is transitioning to native Webex service to avoid interruption for user service, and long-term supportability
- Solution will be available in Cisco Unity Connection 14 SU4 (Jul 2024), and 15 SU2 (Q4 2024)

** Call to Action **

- Look out for more detailed information to be published shortly
- Beta participation (https://gobeta.webex.com/key/cucm)
- Plan for Upgrade to CUC releases as soon as they are available
- Plan for onboarding to Webex Cloud-Connected UC as a pre-requisite to the solution



Planning for UCM 15



Getting Started - Basic Discovery Checklist for Migration Prep

Product Support Entitlements

- Collaboration FLEX Subscription (Webex Suite or Calling)?
- SWSS on perpetual license?

On Prem Applications

- Review apps, for compatibility, API, dependencies planning
- Identify 3rd party, homegrown integration applications
- Review other Cisco products (SDWAN, Meraki, IOS UC etc.)

Scope of Upgrade

- Is there more than version upgrade?
- Ex: redress apps, change capacity, change VM specs, replatform, ESXI upgrade

VMWare / ESXi Version

- UCM 15 supported only on ESXi 7.0 or 8.0U1
- Identify commercial offer Ex: BE6k/7K Embedded Virtual offers are EOL

Hardware

- BE6K/7K Appliance ? General purpose UCS/Hyperflex?
- Or 3rd Party Which CPU, How much RAM/Disk GB

End Points / Devices

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IP Phone Models ? Jabber/Webex App versions ? Meetings devices ?

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Perform Detailed Discovery Early!

No readdressing. Complete MoP & schedule. Typical time to upgrade = ~1 weekend / cluster. (day only, Fri pm thru Sun pm).

ESXi upgrade NOT required. Licensing ok

SU1

 Ω

get to

Server refresh / upspec NOT required.

No site/DC moves.

Personas & how they use the phone system are understood.

For unsupported devices, either refresh or migrate to Webex App.

Admin work

~130 **Application Nodes**

20 VMware ESXi hosts

20 **Physical Servers**

> 100s sites

~40K total Calling users

> ~65K total devices



Customer admins create MoP with Cisco Advanced Services input. Customer then manages outsourced vendor of ~4 HC to execute.



7 clusters v12.5, 11-15 nodes each (92 UCM VMs, ~28 CUC/CER VMs)

Active Collaboration Flex subscription, renewal not till next year

No 3rd-party integrations.

vmware VMware-direct perpetual licensing, renewal not till next year. ESXi 7.0 U3 and vCenter with Enterprise Plus feature-level. No other VMware products used.



HPE DL380P G9/10 (mixed 2S/12C, 2S/16C hardware specs validated v15-ready)









Data Centers

Manufacturing Centers

Offices/Campuses



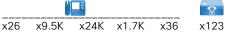


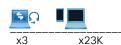




Factory Workers

Workers





x5.5K

Analog Phones

69xx 78xx 79xx 88xx 99xx **IP Phones**

ATA

CIPC WxApp/CSF Softphones

Get your coverage ready BEFORE upgrading

Cisco Smart Licensing

Setup Smart Account & Virtual Account(s) with CSSM inventory.

Active Flex Subscription in CCW-R

...including CSSM inventory containing correct Smart Licensing entitlements.

Clean up any of this early!

- Legacy perpetual license key and/or CSSM entitlements?
- Legacy temp license key and/or CSSM term entitlements?
- No SWSS or Flex?
- Have SWSS or Flex, but expired or undercovered,?
- Have Flex, but renewal is before/during upgrade project timeline?



Planning your move to 15...

Release Set & Compatibility Matrix

Collaboration System Release 15

x-app 15/14/12.5 compatibility matrices Cluster Scale

15 = 14

15/14 better than 12.5

Future SUs may increase and/or reduce cluster VM count. VM Specification & Guest OS Changes

1vcpu VMs going away.

vram/vdisk GB increases.

New vmx & Guest OS type

Special handling for tech debt

ESXi Compatibility

15 / 14: ESXi 8.0, 7.0 6.7 EOL!

12.5: ESXi 7.0 6.7 EOL! No 8.0! ESXi/HW Compatibility, VM placement, Min HW specs

> 64-bit grows min HW footprint.

CPU min HW specs same as 14 / better than 12.5.

ESXi 8.0 requires more RAM GB than 7.0/6.x.

Install, Direct Upgrade, Direct Migrate

New Install options.

12.5/14 > 15 NOT Refresh Upgrade!

Automation options



Compatibility Planning - v15 Release Set

Calling



CUCM



SME



CUC 15



CFR 15



Expwv





CUACS/A 14.0.2.20





CUBF 17.12.2

Messaging/ Teams

Meetings

CMS

■ VMN

TMS 15.13.3

Contact

Center



IMP 15

Webex App 43.12

Endpoints & Cloud Interop

Jabber 14.2



Webex CCUC No admin action needed



IP Phones 7800/8800 14-2-1-0101-26



Headsets

320: 1-1-0001-9 520/530: 15-18-30 560: 2-4-0001-15 720/730: 1-12-0-154



Video Endpoints CE 9.15 / Vid 14.2

See also:

Compatibility Matrix for Cisco Unified Communications Manager and the IM and Presence Service, Release 15x @

https://www.cisco.com/c/en/us/td/docs/voice_ip comm/cucm/compat/15 x/cucm b compatibilit v-matrix-cucm-imp-

15x.html#reference E1369DFDFE37D48FD562D DD09987FA4B

* Not vet FCS. For now use:

UCCX 12.5(1) SU3 ES04

UCCE 12.6(1-2) or 12.5(2) with ES12 on CCMP

PCCE 12.6(1) or 12.6(2) +ES27

PCCE 12.5(2) +ES38.

** Compatible with UCM 15.



Compatibility Planning (cont'd)

Planned Calling/CC

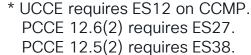
1. if UCM version is...

2. ...then other app can be version(s)



(cc)

	UCM 12.5	UCM 14	UCM 15			
SME	12.5	14 / 12.5	15 / 14 / 12.5			
IMP	12.5	14	15			
CUC	15 / 14 / 12.5	15 / 14	15			
CER	15 / 14 / 12.5	15 / 14	15			
PCD	15 /14 / 12.6	15 / 14	15			
Expressway	X14.3	X15 / X14.3	X15 / X14.3			
CPS	14.4.x	14.4.x	15 / 14.21.1			
CUAC Std/Adv	14.0.2.10+	14.0.2.10+	14.0.2.20			
P/UCCE suite	15 / 12.x	15 / 12.x	15 / 12.6(1-2) / 12.5(2)*			
UCCX suite	15 / 12.x	15 / 12.x	15 / 12.5(1) SU3 ES04			





Compatibility Planning (cont'd)

UCM 15 APIs

- In general, UCM R supports APIs R, R-1, R-2.
- v15 is not changing external API definitions.
- 3rd-party validation "Gold/Silver/Bronze" for v15.



Compatibility Planning (cont'd)

UCM 15 endpoint support vs. deprecation

UCM 15 will NOT deprecate any additional endpoints.

List of deprecated phones through UCM 14 applies to 14:

https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/

cucm/trouble/14 0 1/fieldNotices/cucm b deprecated-phones-14.html

Usual caveats apply for "not Deprecated, but End of Support"

- Can't buy spares. Cisco can't repair/replace.
- Cisco will not issue bug fixes or security fixes for endpoints End of Software Maintenance or End of Support.
- Cisco will not test UCM with End-of-Life phones.
- UCM bugs related to End-of-Life phones will not be fixed unless replicated on a phone that is not End of Life.



Capacity Planning

Scale, Node density, Cluster node count

UCM 15 FCS through 15 SU1

Same as UCM 14 SU3 (which is improved over UCM 12.5)



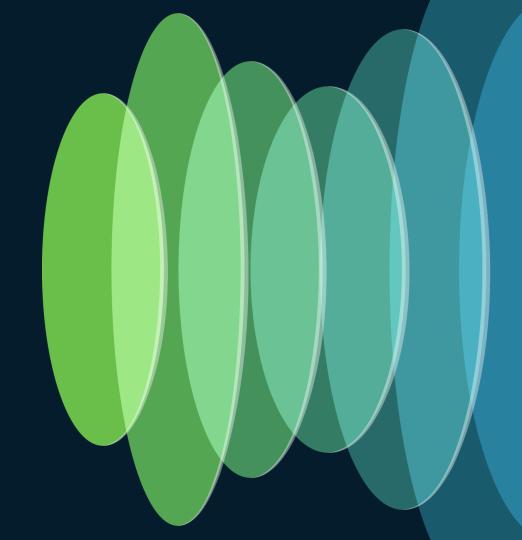
Cisco Collaboration Sizing Guide for Release 15

UCM 15 SU2+ possibilities (not committed)

	Density/node	Scale/cluster	Max callP nodes/cluster
Higher scale-up	Higher	Higher	Fewer
Higher scale-out	Same as 15SU1	Same as 15SU1	More (to cover more sites/buildings)



Virtualization (VMware) / Hardware Specs & Readiness



Compatibility & support planning On-prem Calling vs. FSXi vs. Hardware

On-prem Calling vs. Lon vs. Hardware									
CSF	.6 CSR 12.8			CSR 14			CSR 15		
UCM 10.5, 12.0 eoSupp now 11.5 eoSupp MayCY24 12.5 eoMaint AugCY24 14 EOL Announce 1HCY24	10.5	11.5		12.5 SU2+		14			15
VMware ESXi 6.7/older eoSupp now 7.0 eoGS AprCY25 8.0 eoGS date TBD	6.5	6.7 6.5	6.7 6.5	7.0	6.7	7.0	8.0	7.0	8.0
UCS M7 EmeraldRapids / SapphireRapids (+Genoa select apps)									
UCS M6 Ice Lake (+Milan select apps)									
UCS M5 CascadeLake / Skylake BE6K/7K M5 eoSupp CY28									
UCS M4 Broadwell / Haswell BE6K/7K M4 eoSupp JunCY23									
UCS M3 Sandy Bridge / Ivy Bridge BE6K/7K M3/older eoSupp now C220/C240 M3 eoSupp now									

Countdown to EOL Something's NOT supported!

Good to go...

Unsupported combos

· Any issues isolated to "because esxi 6.7/older". • No 10.5 on esxi 6.7+

• No 11.5 on esxi 7.0+ • No 12.5 on esxi 8.0+

 No 14 on esxi 6.5 No 15 on esxi 6.7

Only some apps support these: New CPUs on UCS M7

- AMD CPUs

ESXi 7.0 vs. 8.0 considerations to date

	ESXi 7.0	ESXi 8.0
UCM compatibility	15, 14, 12.5 (no 12.0/11.5/older)	15, 14 (no 12.5/older)
VMware.com End of General Support on https://lifecycle.vmware.com/#/ (VMware's end of bug/sec fix, end of phone support even to Cisco TAC)	2-Apr-CY25	TBD
Minimum physical RAM	4GB min 8GB reco'd	8GB non-production 12 GB production



ESXi's VMware Tools vs. Open VM Tools

What is it?

- "Drivers" in the guest OS layer. See vmware.com doc links: <u>here</u> and <u>here</u>.
- VMware Tools = "VMware-native", VMware-provided.
- Open VM Tools = open-source, guest OS-provided.

Open VM Tools is recommended for UCM.

- Better compatibility control UCM controls version.
- Better quality avoid issues from surprise vmtools version changes.
- Reduced admin burden updates handled as part of UCM updates. No "4-legged admin" with ESXi team.

What does UCM support?

- UCM 15+ only Open VM Tools.
- UCM 14+12.5 either Open VM Tools or VMware Tools.
- UCM 12.0/older only VMware Tools.

```
utils vmtools status
utils vmtools switch*

admin:utils vmtools status

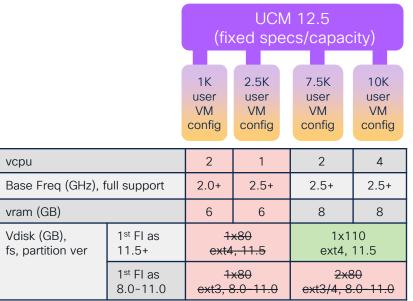
Version: 9.4.0.25793

Type: native VMware Tools
admin:utils vmtools switch
utils vmtools switch native
utils vmtools switch open
```

utils vmtools refresh

admin:utils vmtools

UCM 15 VM Configurations / Specs / Footprints



UCM 14 (reco'd starting points)						
Small	Med	Large				
2	2	4				
2.0+	2.0-2.5 (run CST)					
6	8	8				
1x-80 ext4, 11.5	1x110 ext4, 11.5					
1x80 ext3, 8.0-11.0	2x ext3/4, 8	~ ~				

UCM 15 (reco'd starting points)							
Small	Med	Large					
2	2	4					
2.0+	2.0-2.5 (run CST)					
10	12	14					
1x 110 ext4, 15	1x 110 ext4, 15						
N/A	N/	'A					

Cluster built out of 2-22 VMs. Each VM same config for full cluster scale & node density.

Higher density/scale for same VM count.

15 min vmv / vmx 17 (13 in 12.5/14) Guest OS type = "Other 4.x or later Linux (64-bit)"

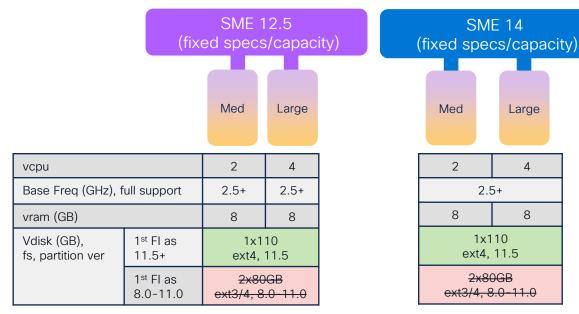
CAN direct upgrade to 15 or 15 SU.

15 SU2+ might support higher node counts at same cluster/node capacities.

Can NOT direct upgrade to 15 or 15 SU. See next slide for alternatives. #CiscoLive BRKCOL-2076

15 SU2+ might reduce VM count.

SME 15 VM Configurations / Specs / Footprints



SMF 15 (fixed specs/capacity) Med Large 2 4 2.5+ 12 14 1x 110 ext4, 15 N/A

Same capacity as SME 14.

Cluster built out of 2 to 22 VMs. Each VM same config for full cluster scale & node density.

CAN direct upgrade to 15 or 15 SU.

Can NOT direct upgrade to 15 or 15 SU. Same alternatives as for UCM. #CiscoLive

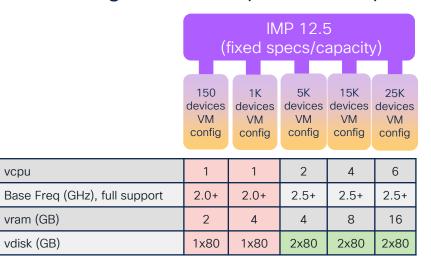


Large

4

8

IMP 15 VM Configurations / Specs / Footprints



IMP 14 (fixed specs/capacity)								
150	416	FI	4514	0514				
150 devices VM config	1K devices VM config	5K devices VM config	15K devices VM config	25K devices VM config				
1	1	2	4	6				
2.0+	2.0+	2.5+	2.5+	2.5+				
2	4	4	8	16				
1x80	1x80	2x80	2x80	2x80				

IMP 15 (fixed specs/capacity)								
Extra- Small (≤1K devices) VM config	Small (≤5K devices) VM config	Medium (≤15K devices) VM config	Large (≤25K devices) VM config					
1	2	4	6					
2.0	2.5	2.5+	2.5+					
6	10	14	18					
1x110	2x80	2x80	2x80					

Cluster built out of 2-6 VMs. Each VM same config for full cluster scale & node density.

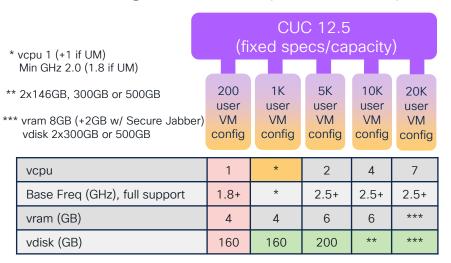
CAN direct upgrade to 15 or 15 SU.

Can NOT direct upgrade to 15 or 15 SU.

Move to another VM config.

cisco live!

CUC 15 VM Configurations / Specs / Footprints



CUC 14 (fixed specs/capacity)						(fixed	CUC spec	2 15 s/capa	icity
200 user VM config	1K user VM config	5K user VM config	10K user VM config	20K user VM config		Extra Small VM config	Small VM config	Medium VM config	Larg VN con
1	*	2	4	7		2	2	4	7
1.8+	*	2.5+	2.5+	2.5+		1.8+	2.5+	2.5+	2.5
4	4	6	6	***		10	12	12	16
160	160	200	**	***		160	200	**	**:

Cluster built out of 2 VMs. Each VM same config for full cluster scale & node density.

CAN direct upgrade to 15 or 15 SU.

Can NOT direct upgrade to 15 or 15 SU. Alternatives TBD.

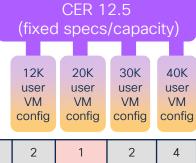
Maybe NOT direct upgrade to 15 or 15 SU. Check hardware CPU pcores.

#CiscoLive



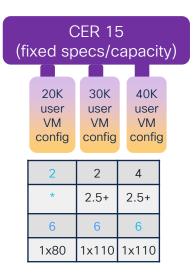
CER 15 VM Configurations / Specs / Footprints

* Min GHz is: 2.0+ for max 12K users. 2.5+ for max 20K users



vcpu	2	1	2	4
Base Freq (GHz), full support	2.0+	2.5+	2.5+	2.5+
vram (GB)	4	4	6	6
vdisk (GB)	1x80	1x80	1x110	1x110

CER 14 (fixed specs/capacity) 12K 20K 30K 40K user user user user VM VM VM VM config config config config 2 4 2.5+ 2.0+ 2.5+ 2.5+ 6 6 4 4 1x80 1x80 1x110 1x110



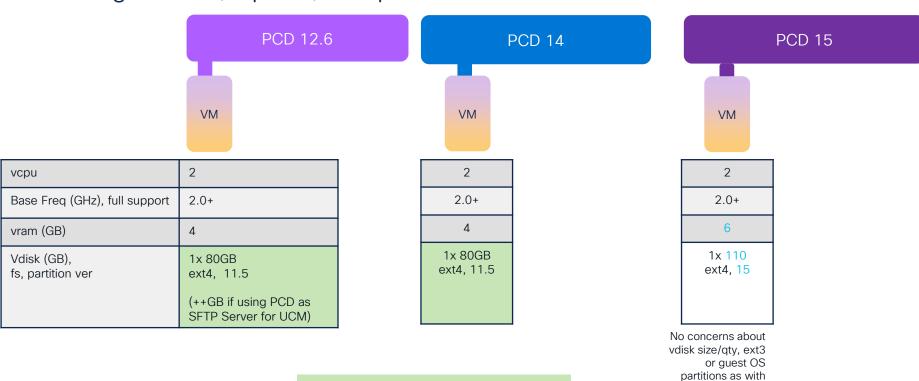
Cluster built out of 2 VMs. Each VM same config for full cluster scale & node density.

CAN direct upgrade to 15 or 15 SU.

Can NOT direct upgrade to 15 or 15 SU. Move to another VM config.



PCD 15 VM Configurations / Specs / Footprints



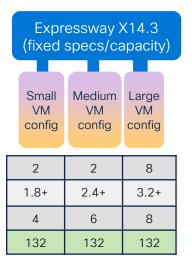
CAN direct upgrade to 15 or 15 SU.

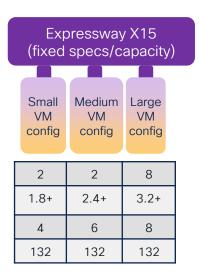


UCM.

Expressway X15 VM Configurations / Specs / Footprints



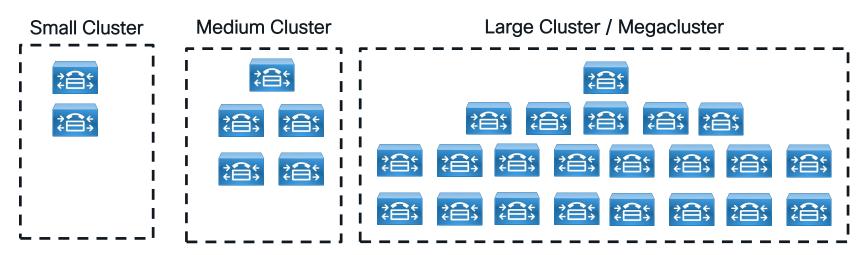




Cluster built out of 2 VMs. Each VM same config for full cluster scale & node density.

CAN direct upgrade to 15 or 15 SU.

Clustering / VM Placement Planning

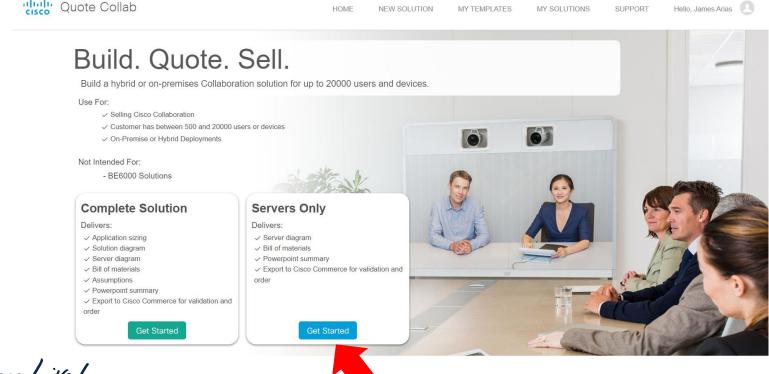


- Release 15 does NOT change rules for App/ESXi/HW Compatibility, VM Count/Placement or how we determine Physical Hardware specs.
- Expect increased Physical Hardware Footprint (vcpu/vdisk on low-end, vram all sizes).
- As always...use QuoteCollab <u>www.cisco.com/go/quotecollab</u> or infrastructure requirements at https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/uc_system/virtualization/cisco-collaboration-infrastructure.html



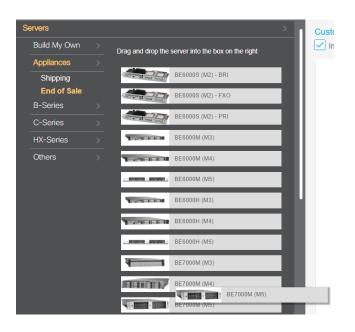
Use QuoteCollab tool to visualize your upgrade

www.cisco.com/go/quotecollab

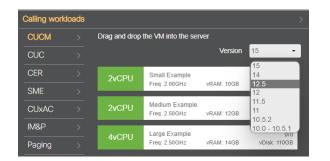


Use QuoteCollab to...

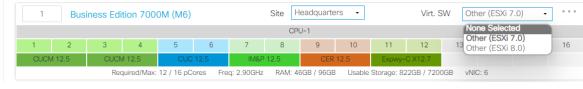
1 Pick the hardware being used.



2 Pick the applications in use, along with their versions & capacity points.

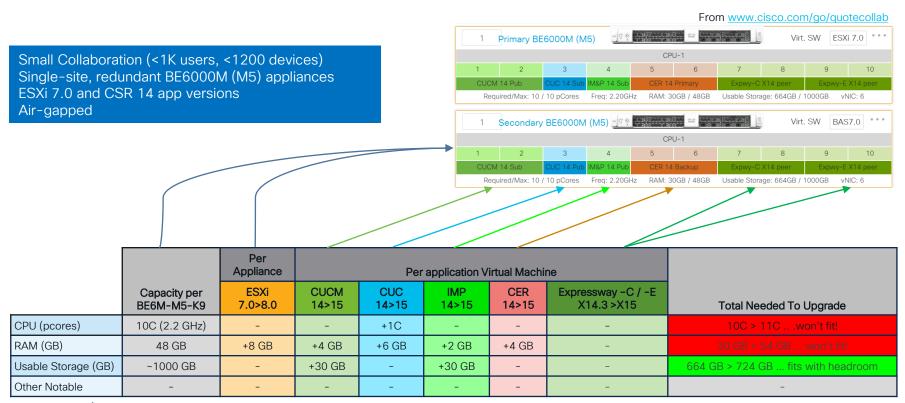


3 Review if hardware can handle upgrades to CSR 15 + ESXi 8.0.





Hardware capacity planning Example #1 - Small Collaboration





Hardware capacity planning Example #1 - Small Collaboration (cont'd) with BE-6000

Mitigations explored:

- Is cloud calling an option? No (airgapped).
- Would migrating IMP VM's to Webex cloud messaging help? No (airgapped). Otherwise would free up 1 pcore & 6GB RAM.
- Can I up-spec the HW? No (CPU swap not supported, and if can't fix CPU/pcores, trying to add RAM is moot).

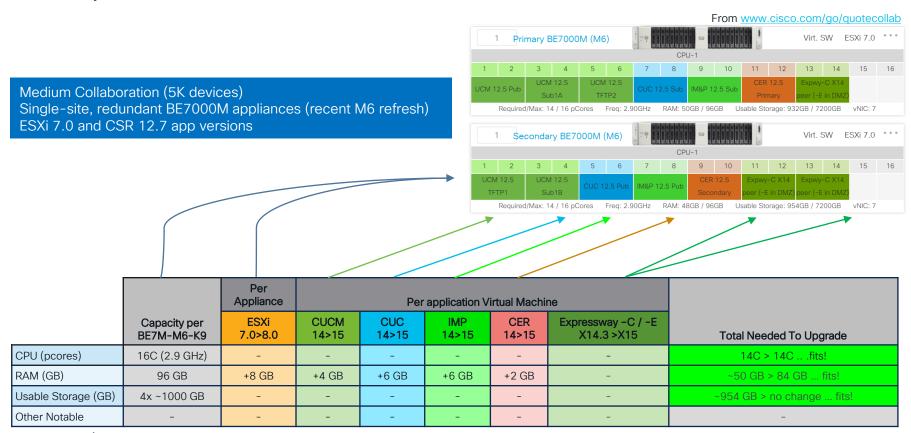
Solution:

- Add another appliance. Provides better redundancy, more expansion headroom, easier change management.





Hardware capacity planning Example #2 - Medium Collaboration





Hardware capacity planning Example #3 - Large Collaboration

Large Collaboration (20K-30K devices)
Dual-DC farms of B200 M4 blade servers.
ESXi 6.x and CSR 11.6 app versions
HW and all SW vers end of support!



		Per Appliance		Per	application V	irtual Machi		
	Capacity per B200 M4	ESXi 7.0>8.0	CUCM 14>15	CUC 14>15	IMP 14>15	CER 14>15	Expressway -C / -E X14.3 >X15	Total Needed To Upgrade
CPU (pcores)	20C (2.6 GHz)	-	-	-	-	-	-	~18C / blade > no change fits!
RAM (GB)	94 GB	+8 GB	+6 GB	+6 GB	+6 GB	+2 GB	-	~58 GB / blade > 96GB fits if rearrange VMs
Usable Storage (GB)	Shared Storage	-	-	-	-	-	-	Off-blade Shared Storage
Other Notable	-	-	-	-	-	-	-	



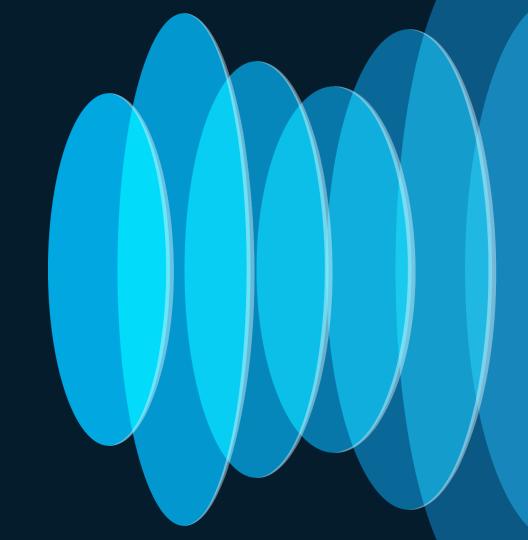
From www.cisco.com/go/quotecollab

CARL !

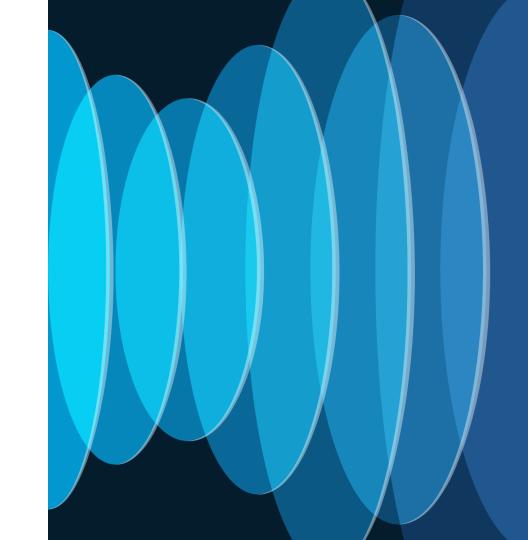
CARL

How to go to Release 15?

Install, Direct Upgrade, Direct Migrate



Pre-upgrade Checks



cisco Life!

Run all the Upgrade Readiness COP files!

3 different files that check Direct Upgrade readiness (10.0-15) > 15.

Software Download

Downloads Home / Unified Communications / Call Control / Unified Communications Manager (CallManager) / Unified Communications Manager Version 15 / Unified Communications Manager Utilities - COP-Files

For UCM+IMP 15:

Upgrade Readiness COP file to run pre upgrade tests. ciscocm.preUpgradeCheck-00043.cop.sha512
Advisories \(\Gamma_1^7\)

Downloads Home / Unified Communications / Unified Communications / Messaging / Unity Connection / Unity Connection 15 / Unity Connection Utilities- COP-Files

For CUC 15:

The COP file to support Pre upgrade checks for Cisco Unity Connection.

ciscocm.cuc_preUpgradeCheck-005.cop.sha512
Advisories 「

7

Downloads Home / Unified Communications / Telephony Extensions / Emergency Responder / Emergency Responder 15 / Emergency Responder Updates - COP-Files

For CER 15:

COP file to check upgrade readiness. ciscocm.cer_preUpgradeCheck-4.k4.cop.sha512

Advisories [7]

cisco like!

What are they checking?

www.cisco.com/web/software/286319173/139477/Post_Upgrade_COP_00043_Readme.pdf

- Virtual Network adapter type
- Network status (intra-cluster connectivity, DNS/NTP reachability, NTP stratum clock drift)
- Database sanity & cluster status (non-standard entries?, node authN state, replication state)
- License status
- Using deprecated features? (IMP Remote Call Control with Microsoft Lync Server Feature, UCM H.323 Gatekeeper Control)

- VM Tools type (VMware or Open)
- Store Installed COPs, Services
 Status, Service+Enterprise
 Parameters, Trunk Status,
 (un)Registered Phone+CTI Endpoint counts.
- Date of last backup
- Check disk space & if stale vdisk, partitioning, filesystem type
- Common Security Password length
- · Deprecated phones?



Do what the Upgrade Readiness COP files say!

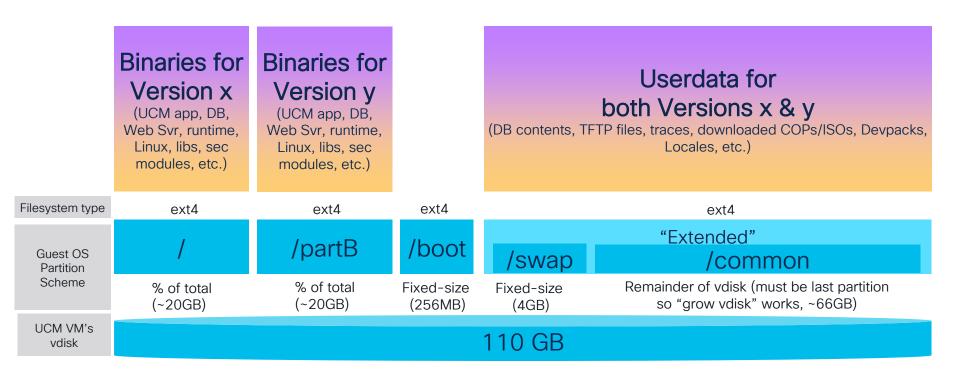
- Expect to iterate:
 - Run, get output file. Fix any CRIT, FAIL. WARN might need fix or be ok.
 - Re-run until all checks are PASS or explainable WARN.
 - After upgrade, run post-upgrade-COP (different file) for before/after comparison of certain items "before".

- FAIL on legacy vdisk layouts, guest OS partitions, swap or certain ext3 means you must either:
 - Direct Migrate to 15
 - Backup/Restore all nodes, then you can Direct Upgrade to 12.5
 - · No shortcuts/hacks!



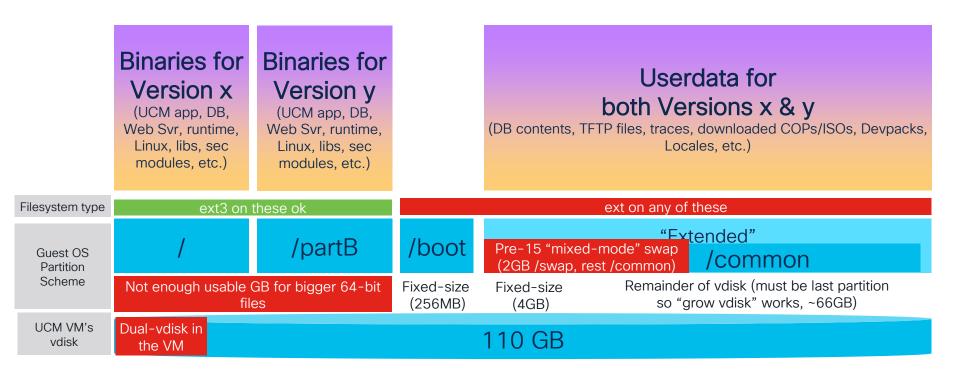
Upgrade Readiness

What UCM 15 supports & expects from inactive version



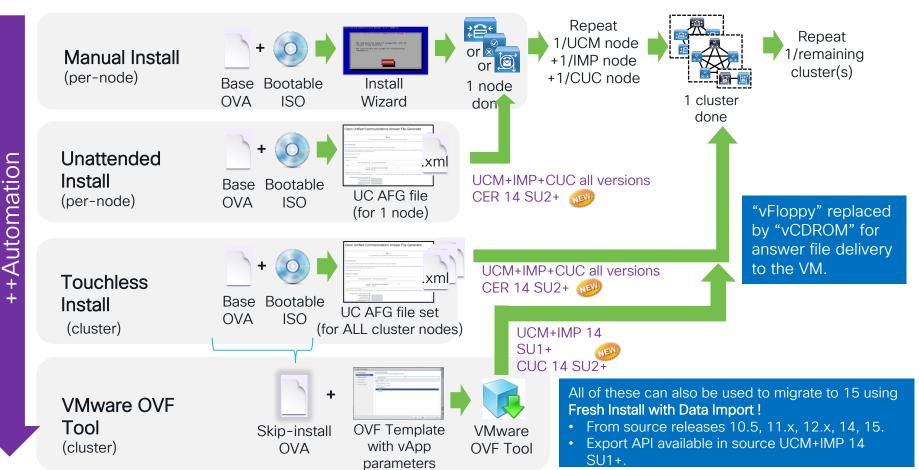


Upgrade Readiness (cont'd) What will block Direct Upgrade to UCM 15



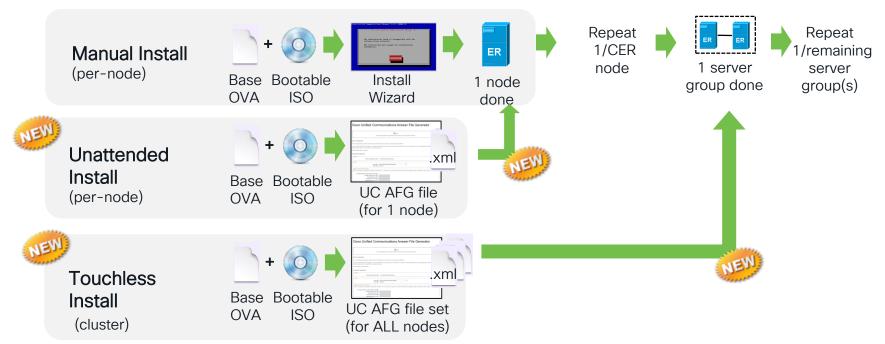


UCM 15 Install Automation Options



New Install Automation options for CER 14 SU2+

- Theme = automation for WxC dedicated instance + catchup CER install options to UCM.
- Start with AFG and Touchless options.
- Considering Fresh Install with Data Import.



Review: Upgrade/Migration Mechanisms
(as defined in Upgrade and Migration Guide for Cisco Unified Communications Manager and the IM and Presence Service, Release 15 and SUs)

			In these versions	Admin	/ Devops Ex	perience	Duration	Service Impact	Admin Touch
Old UCM Version	Direct Upgrade (Standard) Direct Upgrade (Refresh/RU)	New UCM Version	All (default experience)	App- native	API or UI	Per-node only	Slower	Downtime	High- touch
	Direct Upgrade (PCD Upgrade Task)		Source 10.5+ Dest 11.5+	Separate mgmt app	No API, UI only	Cluster & Multi- Cluster	Slower	Downtime	Medium- touch
	Direct Migrate (PCD Migration Task)		Source 10.5+ Dest 11.5+	Separate mgmt app	No API, UI only	Cluster & Multi- Cluster	Faster if HW + Readdress	↓Downtime if HW + Readdress	Medium- touch
	Direct Upgrade (Simple Upgrades)		Source 12.5+ Dest 12.5+	App- native	No API, UI only	Cluster	Fastest	Least Downtime	Least- touch
	Direct Migrate (Fresh Install w/ Data Import)		Source 10.5+ Dest 12.5su5+	App- native	API or UI	Cluster & per-Node	Faster	Less Downtime	Lower- touch



BRKCOL-2076

When to consider Direct Migration instead of Direct Upgrade

Use Direct Upgrade if...

...only changing UCM/CUC/IMP versions



Use Direct Migration if multiple changes..

Upgrading UCM/CUC/IMP and...

Changing IP/hostname.

Making mandatory guest OS partitions / filesystem type changes.

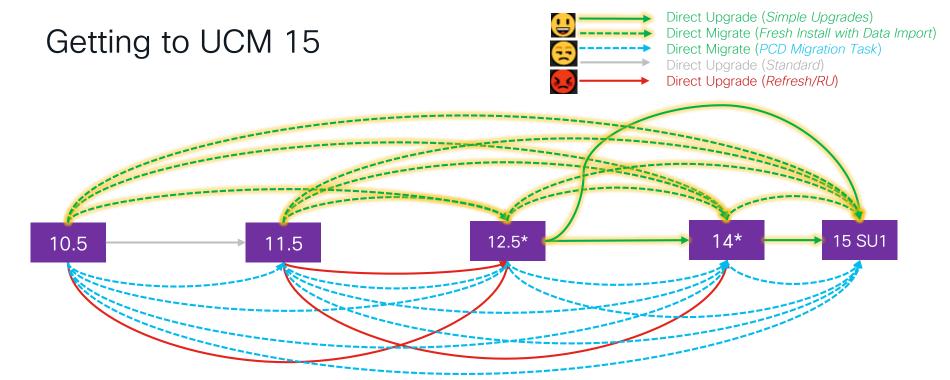
Making mandatory vdisk layout changes.

Upgrading ESXi.

Refreshing / Replatforming Hardware.

Site move.



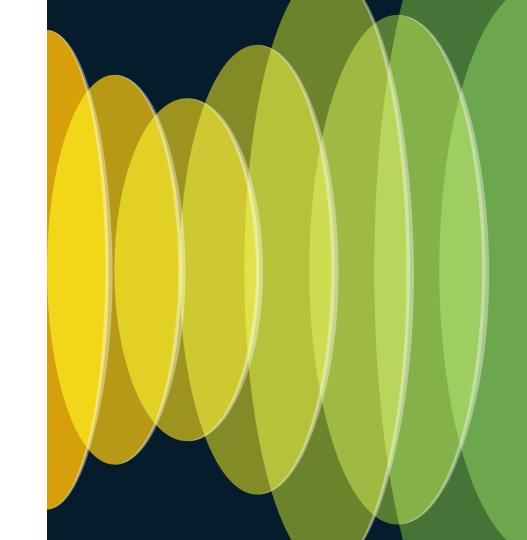


Recommendation:

• Simple Upgrades where you can, Fresh Install with Data Import where you can't.



11.5 to 15 Example



cisco Life!

On UCM 11.5 (bad, end of TAC support May CY24)

No IP / hostname changes (good).

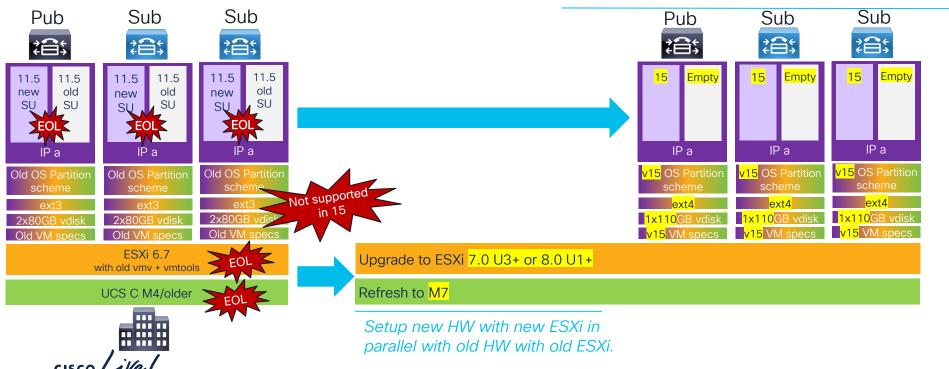
UCM also has legacy guest OS elements & vdisk layout (bad, not supported in 15, must modernize).

ESXi version is end of support (bad, must upgrade).

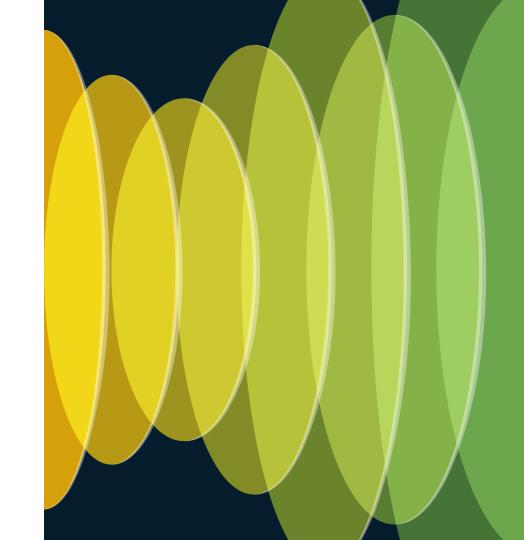
Hardware is end of support (bad, must refresh).

No site change (good).

Direct migration to 15 across nodes using required sequencing rules.



12.5 to 15 Examples



cisco Life!

On UCM 12.5 (bad soon ... end of bug/sec fix Aug CY24)

No IP / hostname changes (good).

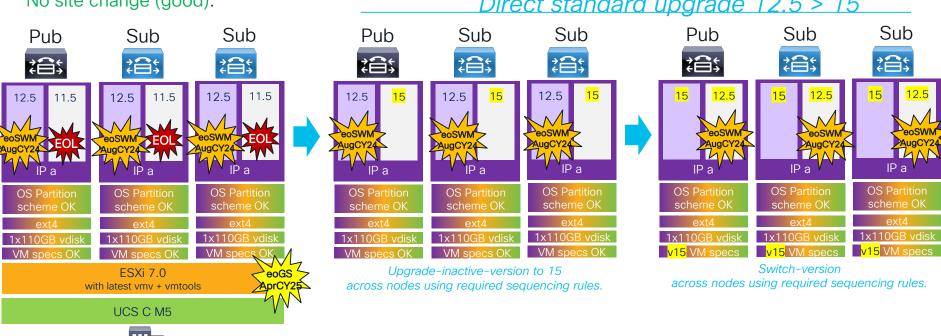
UCM has latest guest OS elements & vdisk layout (good).

ESXi version still supported (good).

Hardware still supported (good).

No site change (good).

Direct standard upgrade 12.5 > 15





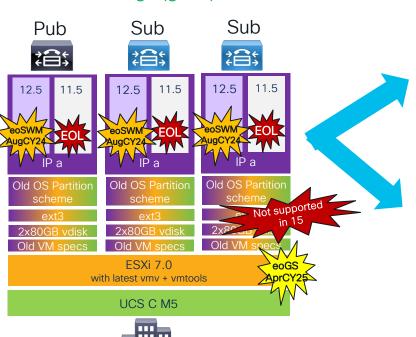
On UCM 12.5 (going bad ... end of bug/sec fix Aug CY24)

No IP / hostname changes (good).

UCM also has legacy guest OS elements & vdisk layout (bad, not supported in 15, must modernize). ESXi version still supported (good).

Hardware still supported (good).

No site change (good).



Direct migrate to 15

Backup 12.5, reinstall/restore 12.5, direct upgrade to 15



On UCM 12.5 (going bad ... end of bug/sec fix Aug CY24)

(cont'd)

No IP / hostname changes (good).

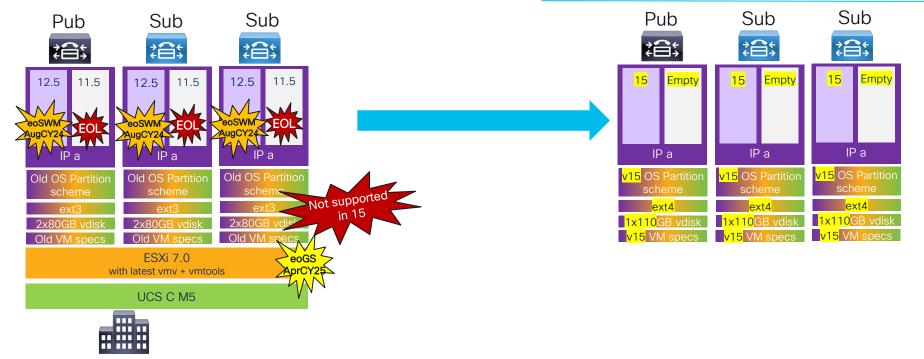
UCM also has legacy guest OS elements & vdisk layout (bad, not supported in 15, must modernize).

ESXi version still supported (good).

Hardware still supported (good).

No site change (good).

Direct migration to 15 across nodes using required sequencing rules.



On UCM 12.5 (going bad ... end of bug/sec fix Aug CY24)

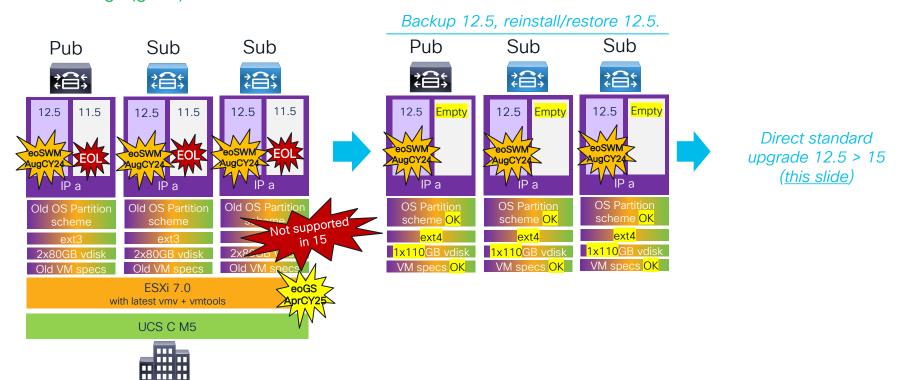
(cont'd)

No IP / hostname changes (good).

UCM also has legacy guest OS elements & vdisk layout (bad, not supported in 15, must modernize). ESXi version still supported (good).

Hardware still supported (good).

No site change (good).



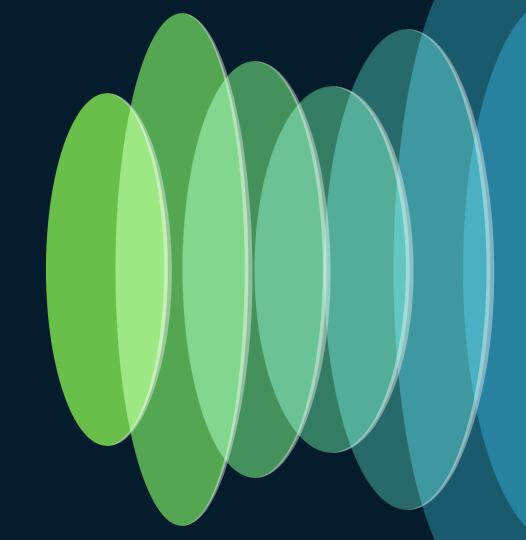
If Direct Upgrade, when do I change VM settings?

For (12.5 or 14) direct upgrade to (15) ...

- Change these pre-switch-version
 - vcpu qty, vram GB, single-vdisk GB, vmv/vmx to 17+
 - Make sure enough physical HW vs. VM placement with new VM specs!
 - Reminder dual-vdisk to single-vdisk can only be done via UCM DRS or Direct Migration.
- Change Guest OS type post-switch-version.
 - VM's for 12.5/14 need to have Guest OS type = CentOS7 (64 bit)
 - VM's for 15 need Guest OS type = Other 4.x or later Linux (64-bit) (if don't see, upgrade vmv/vmx)
- All of these changes made the same way...
 - Power down VM, edit spec, power up.
 - E.g. ESXi 8.0 detailed procedure on vmware.com: https://docs.vmware.com/en/VMware-vSphere/8.0/vsphere-esxihost-client/GUID-8BC61426-9C80-495D-B53F-F2309DBD524A.html



Conclusion



Take aways and next steps

- CentOS 7 End of Support this June. 11.5 End of Support this May.
- Time to get upgraded.
- 15SU1 just released.
- Conservative path is to go with CUCM 14.
- Save a double upgrade by going directly to CUCM 15SU1.
- Lots of tools, tips, and techniques to help execute your migration are available.
- Webex Calling is a viable option if you struggle keeping pace with necessary upgrades.
- Webex Calling is a viable option to mitigate any Broadcom/VMware concerns.



Cloud Calling - The way you want it









Calling Sessions

BRKCOL-2065: Webex Calling - How do I begin?
BRKCOL-2062: Best Practices for a Successful Migration from Jabber to the Webex App
BRKCOL-2487: Successful Migrations from Unified CM to Webex Calling
BRKCOL-2076: Upgrade to Cisco Unified Communications Manager Release 15 with Confidence!
BRKCOL-2064: Migrating IP phones from Unified Communications Manager (on-premises) to Webex Calling (cloud) by a TAC Engineer
BRKCOL-2787: Planning and Designing Successful Cloud Calling Deployments with Webex Calling
IBOCOL-1120: Webex Calling: What Do You Want to Know?
BRKCOL-1005: Understanding the Webex Customer Experience Basic & Essential Solutions, Configurations and Supervisor/Agent Experience
BRKCOL-2068: Cisco IP Phones, Headsets, and Webcams: The Product Updates that we all Need to Know
IBOCOL-2010: Cloud Connected UC: The Bridge to Migrate Your On-Premises Solution to Webex Calling
BRKCOL-2812: Troubleshooting Webex Calling Premises-based PSTN
BRKCOL-2067: Calling Interoperability with Microsoft Teams
IBOCOL-2420: Calling Migrations: an Interactive Session to Share Experiences, Ideas, Solutions, and Best Practices
BRKCOL-2314: CUBE v14 Updates
BRKCOL-2390: Cisco Video Endpoints Update
BRKCOL-3009: Troubleshooting UCM Calling in Webex App Like a TAC Engineer



Plan a collaboration strategy for the future

UCM 15 ebook: http://cs.co/ucm15



Stay on Premises - UCM 15

- Connect to Cloud with Cloud Connected UC
- Migrate to Cloud with Enhanced Survivability Dedicated Instance
- Enterprise Grade Cloud Calling Innovation with Webex Calling multi-tenant

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Contact us at this session's Webex space (see slide 3; moderated until June 7, 2024)



Thank you

