Cisco Unified Communications Manager Version 12.5

Cisco® Unified Communications Manager is the heart of Cisco collaboration services, enabling session and call control for video, voice, messaging, mobility, instant messaging, and presence.

Product overview

What if you could collaborate more effectively with customers and partners on any network? With any device? From anywhere? Cost-effectively, reliably, and securely? With Cisco Unified Communications Manager (UCM) you can.

Today's workplace challenges the collaboration environment in unprecedented ways. We are becoming more connected, often on mobile devices. Most of us are spending more time in meetings and Web and Video conferencing is intersecting.

Cisco Unified Communications Manager is the core of Cisco's collaboration portfolio. It delivers people-centric user and administrative experiences while supporting the full range of collaboration services including, video, voice, instant messaging and presence, messaging, and mobility on Cisco as well as third-party devices. UC Manager is the industry leader in enterprise call and session management platforms, with more than 300,000 customers worldwide, and more than 120 million Cisco IP phones and soft clients deployed.

What's new with Cisco Unified Communications Manager Version 12.5

Release 12.5 is the latest feature release in market leading Cisco Unified Communication Manager. This release will further extend Cisco Unified Communication Manager's leadership through features that enrich user experiences, simplify administration workloads, enhance security while providing pathways for customers to migrate to cloud collaboration.

Table 1 lists major features in Cisco Unified Communications Manager Version 12.5

Table 1. High-level features in UCM Version 12.5

Feature	Benefits
Simplified Administration	
Simple Upgrades	● Reduction in upgrade duration, service impact, manual touch points and sequencing complexity through improvements to native upgrade experience of Unified Communications Manager and Instant Messaging & Presence Service 12.5.
	● Automated pre-upgrade and post-upgrade checks for 10x,11x, 12x upgrading to 12.5(1) or later. Providing early detection and resolution of issues that could fail an upgrade.
	● Database replication moved to pre-reboot, simplifying change management and reducing user/device impact of post-reboot updates.
	● One-touch cluster-wide upgrade and reboot controlled by UCM Publisher, reducing manual touch points by 90%, simplifying maintenance window planning and further shortening overall duration (as much as 50% for large systems).
	● Prime Collaboration Deployment batch COP install and task chaining to reduce manual touch points for multistage Operations.

Feature	Benefits
Activation Code Based Device On-Boarding	• Activation Code Onboarding allows an administrator to create phone records in CUCM without needing to know phone's MAC address in advance. • Phone onboarding is controlled using a simple 16-digit one time use activation code that is generated for each phone record when the administrator creates phone records without MAC addresses in CUCM. • Reduces cost of Phone installation as any phone can be distributed to users without associating user to phone with specific MAC address. • Simple activation that can be carried out by the end users without admin help. • Supported for On-Premise Phones in 12.5, MRA based endpoints support coming in future Service Update.
Jabber Configuration File Management	• Supports admin to centrally manage Jabber configuration through CUCM administration interface. • Enables admin to create multiple Jabber configuration templates based on deployment need, for install per site, per user group. • Eliminates need for configuration file upload, tftp service reset and XML file editing.
Smart Licensing - BE6000 Mode	• Enable CUCM in BE6000 mode and assign Starter pack licenses to it. • Starter pack licenses can be in UCL, UWL mode.
Quick device add and Unified Device Template Enhancement	• Allows creation of device not tied to a user (e.g. conference room phone) and associating Universal Device template. • Supports import and export of Universal Device/Line templates so that admin can easily customize the templates per site with minor modifications.
CMR for SIP Trunk Calls	• Supports writing of Voice Quality Metrics in CUCM Call Management Records (CMR) for SIP trunk calls which terminate on Cisco Unified Border Element (CUBE) or Cisco IOS Gateways.
RFC 2833 on Conference Bridge	• Supports RFC 2833 DTMF on SCCP conference bridges. Removes the need to insert a MTP for DTMF interworking in scenarios where a conference participant supports RFC 2833 DTMF only.
Native Voice XML	• Native Voice XML support for Mobile Voice Access since ISR 4K does not support Voice XML. Native VXML coexists with legacy on same CUCM.
Enhanced User Experiences	
Search Conference Rooms via UDS Proxy	• UDS Proxy facilitates searching of conference rooms represented as Room objects in OpenLDAP server. • Allows Cisco Jabber Client to search conference rooms by name and dial number associated with the conference Room.
Extension Mobility Feature Enhancements	**User control of Max Login time** • Enables CUCM administrator to extend maximum login time for EM and EMCC from existing cluster level to user level for a group of users or individual users. • End users can set the value using Self-Care Portal. • Maximum login time at the user level supersedes the configuration at the Cluster level. **Multi-device login consistence between EM and EMCC** • Extension Mobility Cross Cluster multiple login behavior is consistent with the Extension Mobility multiple login behavior. • Multiple login behavior applies to logins within the same cluster or on a different cluster so that it is easy for the users to frequently travel intra and inter-cluster.
IM/P Enhancements	**Persistent Chat support on Mobile** • Extends Persistent Chat support to Jabber client on Mobile devices, similar to Jabber on Desktop. • Support mute/unmute at Global or Individual room level, @mention notifications even for muted rooms. **Encrypted Message Archival for Chat Messages** • Instant Messages are archived in external MS SQL database. Messages are encrypted before archival. • Helps enterprises meet compliance requirements.
Anonymize External Name and Number	• Users can anonymize outbound calls to show an external presentation name and number instead of their Direct Inward Dial (DID) numbers.
Security and Compliance	
OAuth Support for SIP Line Side	• Uses OAuth tokens on SIP line side for device registrations. • Allow secure SIP signaling and SRTP media without CAPF exchange. • Secure SIP and SRTP enables ICE over Expressway-MRA with Media Path Optimization. • Remove B2BUA from Expressway. • Lowers total cost of ownership by increasing Expressway capacity. • Supported only on Jabber clients in this release.

Feature	Benefits
CUCM Network Based Recording (NBR) to support Multi-forking	● Cisco Unified Communication Manager supports simultaneous, multiple stream recording using Cisco Unified Border Element (CUBE) as a Media Proxy. ● Media Proxy forks the recording streams to upto 5 recording servers. ● Recording Source, Phone Built-in-Bridge or Gateway based, continues to be same. ● Adds redundancy and failover recorders to recording solution. ● Provides additional media streams for additional media processing, like speech analysis and monitoring. ● Enables MiFiD compliance in regulated verticals like financial customers where requirement mandates recording of end-user calls on multiple recording server for redundancy.
Call Recording for Authenticated Calls	● Enables recording of calls from "Authenticated" phones to a non-secure recorder or to a secure recorder with SRTP fallback capability. ● Allows calls made from phones NOT in Encrypted mode to be recorded in some deployments where Encryption on device is not enabled for any reason.
Smart Licensing – Specific License Reservation	● Feature for highly secure environment with no ability to connect to Cisco Smart Software Manager service (CSSM). The Customer Smart Account must be entitled for License Reservation. ● Authorization Code generated can be installed on CUCM, no regular synchronization needed if product runs within specified license consumption limit. ● New Authorization Code need to be installed on the Product which provides an Acknowledgement Code. Changes are not activated until Acknowledgement Code from the Product is updated on CSSM. ● Any increase or decrease in reserved licenses requires re-reserving licenses in CSSM.
Smart Licensing – Privacy support	● Supports using device Unique Identifier instead of hostname or IP address during License registration and synchronization with Cisco Smart Software Manager or Satellite.
Elliptic Curve Cryptography Support	● Elliptic Curve Cryptography (ECC) provides comparable cryptographic strength to RSA but with a smaller key size. ● SIP TLS and HTTPS web access would negotiate an ECDSA-based cipher suite on 7800,8800 series phones, other interfaces continue to use RSA.
Granular Access Control	● Enables different levels of restriction for security related configuration settings. For example, a certain admin user or group of admin users can add new enduser, change enduser password.
Security Enhancements	● **Automatic Endpoint Certificate Enrollment with Enterprise CA (MS)** - Allows an external CA in online mode to sign Locally Significant Certificate to be uploaded to the Phone, thereby reducing manual steps. ● **Cipher control** - Enables an admin to configure recommended ciphers for SIP, HTTP or All TLS and SSL connections. For SSH interface, cipher, key exchange and MAC can be configured. Helps disable weak ciphers. ● SAML SSO Support for CUCM Web Interfaces (OSAdmin and DRS). ● Minimum Version of TLS can be set to 1.2. ● Remote account security and enduser credential security has been enhanced. ● Better Session Management with admin control to. ◦ Limit maximum concurrent session per user per application. ◦ Terminate active sessions of user.
Cloud Connected	
Cisco Unified Communications Manager Cloud (UCM Cloud)	● Enterprise-grade cloud calling and team collaboration offered through a flexible subscription model, hosted and operated by Cisco in North America, Europe, the Asia Pacific region, and Japan. ● Voice, video, messaging, meeting, and mobility solutions with the features and benefits of Cisco IP phones, mobile devices, and desktop clients. ● Ideal for customers wanting to move infrastructure to the cloud, but who need highly customizable solutions, retention of admin control over applications, and maintaining familiar admin experiences.

Ordering Cisco Unified Communications Manager Version 12.5

- Starting with CUCM 12.0 and continuing with CUCM 12.5, **only Smart Licensing is supported.** Licenses are Smart Entitlements. Customers must create a Smart Account.
- Cisco Smart Licensing in Unified Communications Manager Overview: https://www.cisco.com/c/dam/en/us/products/collateral/unifiedcommunications/unified-communications-licensing/presentation-c97-739389.pptx.
- Cisco Smart Licensing: https://www.cisco.com/c/en/us/buy/smart-accounts/software-licensing.html.
- Cisco Smart Software Manager: https://www.cisco.com/web/ordering/smart-software-manager/index.html.
- Cisco Smart Software Manager satellite https://www.cisco.com/go/smartsatellite.
- Cisco Smart Accounts: https://www.cisco.com/web/ordering/smart-software-manager/smart-accounts.html.

Table 2 shows a list of top level ordering SKUs. Refer to the Cisco Unified Communications Solution Ordering Guide for a list of all orderable parts.

Software Options (New Expansion or Upgrade)	
CUCM-VERS-12.5	CUCM Software version 12.5
CUCM-VERS-12.5-XU	CUCM Software version 12.5 Unrestricted
New and expansion UCM Version 12.5 orders	
UCL-UCM-LIC-K9	Top-level SKU
Feature option SKUs	
LIC-UCM-12X-ENHP	UC Manager-12.x Enh Plus Single User
LIC-CUCM-12X-ENH	UC Manager-12.x Enhanced Single User
LIC-CUCM-12X-BAS	UC Manager-12.x Basic Single User
LIC-CUCM-12X-ESS	UC Manager-12.x Essential User License User
LIC-TP-12X-ROOM	TelePresence® Room Based Endpoint, Single or Multi-Screen
Upgrade order (for customers without SWSS)	
UCL-UCM-UPG-K9	Top-level SKU
Feature option SKUs	
UPG-CUCM-ENH	Migration to UC Manager Plus (Smart Entitlements)
UPG-CUCM-USR	Migration to UC Manager Enhanced (Smart Entitlements)
UPG-CUCM-BASIC	Migration to UC Manager Basic (Smart Entitlements)
UPG-CUCM-ESS-USR	Migration to UC Manager Essential (Smart Entitlements)
UPG-TP-ROOM	Migration to UC Manager TelePresence Room based endpoint (Smart Entitlements)

Migrating Cisco Unified Communication Manager 10.x and newer versions (PLM-based licenses) to UCM 12.5

- Customers must create a Smart Account. For more details, refer to https://www.cisco.com/c/dam/en/us/products/collateral/unifiedcommunications/unified-communications-licensing/presentation-c97-739389.pptx.
- Customers need to first migrate their existing classic PAK or PLM to the Smart Account and Virtual Account.
- Customers with active Software Support Service (SWSS) can convert classic licenses to Smart Entitlements through the Cisco Smart Software Manager (CSSM) portal at https://software.cisco.com/#SmartLicensing-LicenseConversion.

- Two types of migration are supported:
  - PAK-based – Migration can be done for already fulfilled, partially fulfilled, and unfulfilled PAKs.
  - Device-based – This can be used to convert the PLM-based licenses to Smart Entitlements.

For more details, refer to https://www.cisco.com/c/en/us/buy/smart-accounts/software-licensing.html.

How to upgrade to a Smart-License-enabled version without a SWSS contract

From v9, v10, and v11 (user-based licensing) upgrade to Smart Licenses. Order a-la-carte upgrade SKUs along with SWSS.

From versions before version 9 (DLU) upgrade to Smart Licenses:

- Order a-la-carte upgrade SKUs based on an LCU report from the classic server
- Add SWSS. Additional new licenses may be ordered

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For more information

For more information on installation or upgrading from older versions of Unified Communications Manager, visit: https://www.cisco.com/c/en/us/support/unified-communications/unified-communications-manager-callmanager/products-installation-guides-list.html.

To view Unified Communications preferred architecture guides, visit: https://www.cisco.com/c/en/us/solutions/enterprise/design-zonecollaboration/index.html.