Cisco Unified Communications Manager 9.0

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

Product Overview

In this post-PC era where users bring their own devices (BYOD) to the work place, today’s organization is challenged in unprecedented ways. These changes in work styles and the ever increasing need for collaboration require organizations to have an integrated productivity solution that enables users to communicate from anywhere, using any device, on any network in a cost-effective, reliable, and secure manner. With more than 120,000 customers worldwide, over 50 million Cisco IP phones and another 10’s of millions of soft clients deployed, Cisco Unified Communications Manager (Unified CM) is the industry leader in enterprise call and session management platforms. It delivers people-centric user and administrative experiences while supporting the full range of collaboration services including video, voice, IM and presence, messaging, and mobility on Cisco as well as third-party devices.

New with Cisco Unified Communications Manager Version 9.0

Cisco Unified Communications Manager Version 9.0 builds on the voice and video enhancements of Version 8.6 by:

- Extending flexibility that fits your business: Cisco Unified Communications Manager Version 9.0 offers a centralized tool for license management, reporting, and compliance, as well as a new user-centric licensing structure. Fixed mobile convergence improvements will help integrate mobile and desk phones using standards-based IP Multimedia Subsystem (IMS) integration. Cisco Jabber™ integration with Cisco Unified CM version 9.0 provides for a common feature base, regardless of the device or the operating system that is used.

- Bridging systems to improve interoperability by taking advantage of the network to work transparently with other standards-based solutions and devices: Session Initiation Protocol (SIP) normalization and transparency enhancements allow better interoperability between different endpoints and solutions. Call Admission Control (CAC) enables intelligent video bandwidth management. The email style end-user dialing option helps ensure that call-control platforms will be compatible with future versions by providing the ability to reach Internet-addressable users and devices. IM and presence client configuration is simplified and is now integrated into the Cisco Unified Communications Manager installation. In addition, the Cisco Extend and Connect feature enables you to integrate your third-party endpoints into your Cisco Unified Communications environment.
• Protecting investments and reusing existing infrastructure while incrementally adding Cisco Unified Communications features and functions: End-user device configuration and management have been optimized to be more intuitive and user-friendly. Native queuing adds to the functions of Cisco Unified Communications Manager for small workgroups by providing basic hunt group and call queuing capabilities. Enhanced E911 captures remote locations for emergency call routing. Voice call recording complements contact center functions by offering productivity enhancements for your existing infrastructure.

Table 1 lists major features in Cisco Unified Communications Manager Version 9.0.

Table 1. High-Level Features in Cisco Unified Communications Manager 9.0

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<th>Benefits</th>
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| Licensing        | • Licensing usage and reporting is simplified, and is now based on user licensing.  
                  | • User licensing - based on user profiles - aligns with UCL/CUWL purchasing models (http://www.cisco.com/go/uclicensing).  
                  | • Centralized license management with the introduction of Enterprise License Manager - provides at-a-glance view of compliance.  
                  | • Improved reporting and management of compliance with a compliance grace period.  
                  | • Centralized management allows for redistribution of licensing amongst supported products.  |
| Platform enhancements | • Continued optimization for higher density per Cisco Unified Communications Manager Virtual Machine.  
                          | • Ability to take advantage of latest Cisco Unified Computing System™ (Cisco UCS®) offerings by providing additional Cisco UCS SKUs.  
                          | • Platform Administrative Web Service Interface (PAWS), which allows applications to initiate and monitor upgrades on multiple Cisco Unified Communications Manager clusters from a single management client; it centralizes software version management and enables remote upgrades, reducing complexity and facilitating large-scale deployment and upgrades.  |
| Video            | • Unified voice and video capabilities on one platform.  
                  | • Directory Uniform Resource Identifier (URI) Dialing extends reachability to users and devices by enabling dialing using email addresses.  
                  | • Multi-tiered CAC, which provides location-spaced CAC to manage bandwidth pools.  
                  | • SIP normalization and transparency enhancements that allow better interoperability between video endpoints.  
                  | • Enhancements in Real-Time Transport Control Protocol (RTCP) and presentation channel allow Cisco Unified Communications Manager to open the ports used by the presentation channel or Binary Floor Control Protocol (BFCP) or Far-End Camera Control (FECC) whenever a media resource is inserted into a video call, so that these capabilities function as they do in a direct connection between endpoints.  
                  | • RTCP Pass-Through, which provides lip-sync and other runtime metrics when a Media Termination Point (MTP), trusted relay point (TRP), or Resource Reservation Protocol (RSVP) agent is in a video call path.  
                  | • IX Channel support that will provide better interworking with conferencing infrastructure.  |
| Native IM and presence | • Software alignment within Voice, Video, IM and Presence for an integrated deployment model allows endpoints to negotiate multiplexed media near channels for exchanging data like conference roster and opens channels for many more endpoint and conferencing applications.  
                          | • Simplifies experience by offering common collateral and ordering.  
                          | • Reduces operating expense with common install, administration, and licensing.  
                          | • Offers common documentation and Cisco Technical Assistance Center (TAC) support.  |
| Mobility         | • Provides improved mobility user experience with video calling.  
                  | • Offers ability to receive video or participate in a video conference in both Wi-Fi and cellular modes, allowing users to move voice and video sessions between mobile and desk phones.  
                  | • Offers session resumption capability for Dial via Office Reverse Call-back (DVO-R) and Single Number Reach scenarios so that end users can call back to the final target.  
                  | • Provides consistent user experience for voice-over-IP (VoIP) and cellular modes for mobile devices.  
<pre><code>              | • Enhances the overall DVO-R user experience.  |
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| Directory enhancements                       | • Directory enhancements reduce the number of configuration steps required to deploy Cisco Jabber™ client in a multicluster environment.  
• A client or endpoint auto-discovery mechanism detects the user’s home cluster and retrieves cluster-specific settings, thus reducing the configuration steps required from the end user.  
• Clients and endpoints have the ability to discover services (such as voicemail, IM, and WebEx® meeting applications) and be notified of any changes in those services.  
• A new interface enables web-service applications to interact with end-user information by supporting user directory search and preferences settings.  
• Custom directory attributes (Flex Fields) can be added and synchronized. |
| Telephony feature enhancements                | • Secure Cross-Cluster Extension Mobility provides the ability to make encrypted calls when using the Extension Mobility Cross Cluster (EMCC) feature.  
• Pause in Speed Dials enables users to configure the phone speed-dial button with strings, including directory number (DN), Forced Authorization Code (FAC) or Client Matter Code (CMC), dual-tone multifrequency (DTMF) digits, and dialing pauses.  
• Native queuing allows users to queue calls to hunt pilot using top-down, circular, longest-idle, and broadcast methods. It also provides the flexibility to configure queue depth and hold time, play unique announcements and Music on Hold (MoH), log in and log out users from a queue and basic queue statistics (from the phone).  
• Multilevel Precedence and Preemption (MLPP) is supported on SIP-based phones.  
• Connected number support for hunt pilot will allow users to send the answered party number from a hunt list versus the pilot in a configurable way.  
• G.clear for Cisco Unified Communications Manager Basic Rate Interface (BRI) interfaces prevents the dropping of G.clear codec advertised by Cisco IOS® Software gateways and sends it to the media layer so that proper negotiation of G.clear can be done.  
• SIP redirection counter inclusion in the SIP diversion header contains call forwarding and other routing loops that are detected.  
• The phone has a Start/Stop recording key.  
• E911 is supported for remote workers on hardware IP phones.  
• Layer 2 location discovery of Cisco Virtualization Experience Client (VXC)-based endpoints for E911 is supported. |
| Cisco Unified Communications Session Management Edition | • Extend and Connect, a new device type on Cisco Unified Communications Manager representing remote devices, delivers features and services like instant messaging and presence to public-switched-telephone-network (PSTN) and third-party private-branch-exchange (PBX) devices.  
• Significant improvements on total end-to-end round-trip time between the nodes in a Session Management Edition (SME) cluster allow nodes to exist in multiple continents.  
• Administrators have the ability to specify codec preferences for outbound SIP trunks and inbound PSTN SIP trunks. |
| Hosted services                               | • The ability to initiate and monitor the backup procedure and configuration through an application programming interface (API) enables a multi-customer toolset to orchestrate and coordinate backups.  
• Enterprise supplementary services are supported on any standard (out-of-the-box) voice over LTE (VoLTE) IMS mobile device (without requiring Cisco Mobile client). Cisco Unified Communications Manager acts as an IMS application server supporting supplementary services on fourth-generation (4G) mobile phones.  
• Cisco Administrative XML (AXL) Change Notification is supported for database updates required for provisioning domain managers (Cisco Prime™ Unified Provisioning Manager and VOSS solution). |

For More Information

For more information about Cisco Unified Communications Manager, please visit [http://www.cisco.com/go/unifiedcm](http://www.cisco.com/go/unifiedcm) or contact your local Cisco account representative.