

Cisco Unity Connection 9.0(1)

Cisco® Collaboration Solutions improve team and customer experiences to help organizations encourage innovation and improve decision making while building trust and enhancing team performance.

Product Overview

Cisco Unity® Connection is a voicemail and unified messaging platform with a comprehensive feature set and is based on the same Linux Unified Communications Operating System as Cisco Unified Communications Manager. With Cisco Unity Connection, you can access and manage voice messages in a variety of ways, using your email inbox, web browser, Cisco Jabber®, Cisco Unified IP Phone, smartphone, tablet, and more. Cisco Unity Connection also provides robust speech-recognition features for when you are mobile, so you can manage your voice messages hands and eyes free.

Features and Benefits

Accelerate Collaboration

Cisco Unity Connection is a powerful unified messaging system with many advanced capabilities that you can customize to increase your individual and team productivity. Respond quickly to colleagues and partners by using speech-activated tools. Easily prioritize and manage messages, access meetings on your calendar, and connect to colleagues simply by saying their names.

Access Voicemail Anytime and Anywhere

Access your Cisco Unity Connection voice messages the way you prefer, whether from an IP phone, mobile phone, tablet, web browser, email client, or desktop client such as Cisco Jabber. You can also use Cisco SpeechView to have your voice messages transcribed and delivered to your email inbox.

Reduce Total Cost of Ownership

Simplify your deployment efforts with the Cisco Unity Connection solution on a Linux appliance. Enjoy the flexibility to deliver unified messaging, integrated messaging, or simply voicemail. The flexible user interface makes messaging more efficient for power users and occasional voicemail users alike. Cisco Unity Connection works in a variety of messaging environments using standard protocols.

Deploy a Reliable Solution

With years of successful deployments, Cisco Unity Connection is a tested, reliable solution. Take advantage of redundancy to make sure you never miss a voicemail. Cisco Unity Connection uses a common set of management and serviceability tools designed to provide a consistent experience and to streamline the ongoing management and operation of a Cisco Unified Communications System.

Secure Your Messages

Security is a concern for most organizations, and mandatory for others. Cisco Unity Connection keeps your messages highly secure so they cannot be played by someone outside your organization.

New Feature: Intelligent Notifications

Intelligent notifications are HTML-based notifications, delivered using SMTP, that enable both message customization and direct message access and control. They can provide actionable links to specific messages and dynamic icons that display the status of messages (such as unread, read, or deleted).

With intelligent notifications you can customize message notifications, add company disclaimers, or display company logos to match your company's brand elements. You can also provide a unified messaging experience without the need for integration and third-party tools for Microsoft Exchange and other email solutions.

Speech-Enabled Messaging

To increase the productivity of mobile workers, Cisco Unity Connection offers a natural and robust speech-activated user interface that allows you to browse and manage your voice messages using simple, natural speech commands.

The Speech Connect for Cisco Unity Connection feature is a built-in speech-enabled automated attendant that enables you to call other Cisco Unity Connection users or personal contacts by simply using your voice. To learn more, please refer to the data sheet at

http://www.cisco.com/en/US/prod/collateral/voicesw/ps6789/ps5745/ps6509/data_sheet_c78-575232.html.

The Cisco SpeechView feature converts voice messages to text and delivers the text version of the voice message to your email inbox, allowing you to read your voice messages and take immediate action. To learn more, please refer to the data sheet at

http://www.cisco.com/en/US/prod/collateral/voicesw/ps6789/ps5745/ps6509/ps10671/data_sheet_c78-609206.html.

Virtualization

You can install Cisco Unity Connection 9.0 as a virtual machine on Cisco Unified Computing System™ (Cisco UCS®), IBM, and HP platforms. Cisco Unity Connection 9.0 supports virtualization on Fibre Channel, Fibre Channel over Ethernet (FCoE), Small Computer System Interface over IP (iSCSI), and Network File Storage (NFS) SANs. For more information, please refer to http://docwiki.cisco.com/wiki/Unified_Communications_Virtualization.

Table 1 lists more features and benefits of Cisco Unity Connection 9.0.

Table 1. Features and Benefits

New Features for Cisco Unity Connection Version 9.0(1)
<ul style="list-style-type: none">• Intelligent notifications<ul style="list-style-type: none">◦ You can create customized HTML notifications with actionable links and deliver them using SMTP.◦ You can use the new browser-based Mini-Inbox for more efficient playback and management of your voicemail on desktops, tablets, and mobile devices.
<ul style="list-style-type: none">• Enterprise License Manager (ELM)<ul style="list-style-type: none">◦ You can manage all Cisco Unity Connection and Cisco Unified Communications Manager licenses from a single management portal.◦ You can pool all Cisco Unity Connection licenses in your network on a single ELM.
<ul style="list-style-type: none">• IPv6 support for all web based interfaces
<ul style="list-style-type: none">• Full E.164 formatted extension support
<ul style="list-style-type: none">• You can have a single voice (customized prompts) for all externally facing telephony user interface (TUI).

Message Access from the TUI

- You can play and process messages (repeat, reply, forward, delete, save, mark as new, hear day or time stamp, or skip to the next message).
- You can reverse, pause, or fast forward messages during playback.
- You can control volume and speed during message playback.
- You can pause or resume during message recording.
- You can address messages to multiple recipients.
- You can hear before playing a message that it has been sent to multiple recipients.
- You can be allowed to listen to all the recipients of the message.
- With the message locator, you can search for messages by caller ID, name, or extension in saved messages.
- You can record messages and mark them as regular, urgent, private, or secure.
- You can record messages and request a return receipt.
- You can record a live conversation with a caller and have the recording sent to your mailbox.
- You can switch between spelling name and extension when addressing a message.
- With live reply, you can immediately reply to messages from other users.
- You can access email messages over the phone using the TTS feature (for Microsoft Exchange 2003, 2007, 2010, and Office 365).
- When TTS is enabled, a conversation tells you if the message has attachments; when an attachment is in a playable or readable format, the attachment is played or read.
- You can view, listen, respond to, and play back messages using the Cisco Unified Communications Widget for Visual Voicemail on Cisco Unified IP Phones.
- You can access the Microsoft Exchange calendar through speech or the TUI.
- You can browse the calendar and accept, decline, or cancel an Outlook appointment.
- If you inadvertently disconnect while sending a new message, replying to, or forwarding a message, and if the message has at least one recipient or a recording, Cisco Unity Connection can save the message as a draft and allow you to return to finish the message on a subsequent call.
- You can review and recall messages sent over a period of time.
- When you hang up or your call is disconnected, bookmarks allow you to call back into Cisco Unity Connection and resume listening to messages without losing your place.

Speech-Enabled Messaging*

- Speech Connect for Cisco Unity Connection, a speech-enabled Automated Attendant for the enterprise, allows you to connect quickly with your colleagues using only your voice (available with Cisco Unity Connection 7.1.3 and later).
- You can speak your voicemail password.
- You can speak dates and times.
- You can use speech commands to play and process messages (play, record, reply, forward, delete, save, etc.).
- You can use speech commands to edit and manage your personal greetings.
- You can use speech commands to address messages to private distribution lists.
- You can use speech commands such as pause, resume, speed up, slow down, skip ahead, and skip back to provide rich and granular control of messages and prompts.
- Speech-enabled directory handlers allow outside callers to use voice commands to reach Cisco Unity Connection users.
- You can temporarily use touch tones to change setup options, and then return to speech-recognition mode.
- A speech command tutorial is available.
- You can customize speech-enabled directory handler greetings.

* Speech-enabled messaging is available for U.S. English only.

Call-Transfer Rules

- You can define rules to route incoming calls by caller.
- You can define rules to route incoming calls by time of day.
- You can define rules to route incoming calls by your calendar free or busy status (Microsoft Exchange only).

End-User Features

- Single Sign-On for the Cisco Unity Connection browser applications is supported.
- If a call is dropped while you are recording a message, Cisco Unity Connection saves a draft message and you can continue recording where you left off during your next session.
- You can customize message-notification options, manage personal greetings, or change passwords with Cisco Unity Connection Assistant (the Cisco web browser-based personal administrator).
- You can select the conversation type: Full or brief prompts.
- You can record and then address a message, or address and then record a message.
- You can record a message for future delivery.
- You can record up to five personal greetings (alternative, busy, internal, off hours, or standard).
- You can manage an alternative greeting, set the expiration date or time, notify users when an alternative greeting is set, or require callers to listen to the full alternative greeting.
- You can forward calls directly to an alternative greeting (or other personal greeting) without ringing the phone.
- You can specify an after-greeting action; after a user greeting, callers can leave a message, sign in, or hang up, or they can be sent to call handlers, directory handlers, interview handlers, or other users.
- You can use flex stack to specify the order in which messages are presented over the phone: by urgency and then by last in, first out (LIFO) or first in, first out (FIFO).
- You can create private distribution lists and address messages to them through the TUI or GUI.
- You can provide message notification for new messages through devices such as Simple Mail Transfer Protocol (SMTP), Short Message Service (SMS), text pagers, and phone destinations.
- With a cascade message-notification feature, you can send additional notification types if a message is not retrieved.
- You can send notifications for messages from a particular user or phone number.
- You can select whether message counts are announced; totals, saved, and new counts are available.
- You can specify whether Cisco Unity Connection announces a transferred call.
- You can perform a supervised transfer for individual alternate contact numbers.
- You can view and play back messages using Visual Voicemail on Cisco Unified IP Phones. You can use soft keys on Cisco Unified IP Phones to access all messages, new messages, or messages from a specific subscriber or outside caller.
- You can use a RSS reader to retrieve voice messages.
- You can perform a “live reply” to someone who left a message from an external telephone.
- You can have your voice messages synchronized with your Exchange Inbox (Single Inbox).
- With the ViewMail for Microsoft Outlook (VMO) plug-in, you can compose, reply to, forward, play, rewind, or pause messages directly from within the Outlook email client.
- You can compose, reply to, and forward messages by using IMAP clients.
- Through calendar integration with Cisco Unified MeetingPlace® 8.0, you can join a meeting that is in progress, hear a list of participants for a meeting, send a message to the meeting organizer or participants, and set up an immediate meeting.
- You can dispatch a message to a group, with the message being assigned to the first member of the group to listen to the message. When the message is assigned, it is deleted from all other users' inboxes and becomes a normal message in the assignee's mailbox.
- You have flexibility with support for partitions, search spaces, and search scopes.
- You can receive and forward fax messages through integration with supported fax servers.
- You can customize subject lines for messages received in any visual client that displays the subject message, such as Outlook or an IMAP or RSS client.
- You can use a single phone number for both voice calls and fax transmissions.
- You can receive message-aging alerts before messages are deleted from the system.
- Over the phone, you can toggle between touch-tone and speech-recognition conversations.
- With the Voice Message Store and Forward feature, administrators, on a per-user basis, can forward voice messages to an external mailbox, making it easier for you to access voice messages on a mobile device.

System Administration Overview

- Cisco Unity Connection supports digital networking for up to 100,000 users within an enterprise and up to 20 servers or active-active cluster server pairs, including cross-server login, cross-server transfer, and cross-server live replay.
- Cisco Unity Connection is scalable to 250 ports and 20,000 users per server. Refer to the Cisco Unity Connection Supported Platforms List for details at http://www.cisco.com/en/US/products/ps6509/products_data_sheets_list.html.
- High-availability support is achieved through an active-active redundancy configuration, which also supports up to 500 ports in the server pair.
- You can use advanced Cisco Unity Connection to Cisco Unity networking to allow both solutions to be networked together transparently.
- Cisco Unity Connection supports the synchronization of user information using Lightweight Directory Access Protocol (LDAP) with Microsoft Active Directory 2000, 2003, and 2008; Sun One; Sun iPlanet; Netscape Directory Server; OpenLDAP; and ADAM/LDS, enhancing your deployment and administrative options.
- Cisco Unity Connection allows for separation of an active-active pair across data centers (geospatial separation), providing greater deployment options for the enhanced reliability of high availability across the WAN.
- Cisco Unity Connection supports Voice Profile for Internet Messaging Version 2 (VPIMv2), which allows networking of up to 50 Cisco Unity, Cisco Unity Express, or third-party voicemail systems, allowing users on each of these systems to transparently reply to, forward, and exchange voice messages.
- Cisco Unity Connection 8.5 and later supports unified messaging (Single Inbox) with Microsoft Exchange 2003, 2007, and 2010, Microsoft BPOS-D, and Office 365.
- Support for virtual machine deployments on Cisco UCS, IBM, and HP servers and blades is specifications-based. Virtualization support is extended to include FC, FCoE, iSCSI, and NFS SANs.
- Phone-system integrations include any phone system that provides a serial data link (Simplified Message Desk Interface [SMDI], Message Center Interface [MCI], or Message Digest Algorithm 110 [MD110] protocol) to the primary PBX IP media gateway (PIMG) unit (serial integration through analog PIMG or T1 IP media gateway [TIMG] units).
- Cisco Unity Connection integrates with QSIG-enabled PBXs through either Cisco Unified Communications Manager or a Cisco Integrated Services Router.
- Cisco Unity Connection integrates with Cisco Unified Communications Manager and leading traditional telephone systems, even simultaneously (using the PIMG or TIMG).
- Cisco Unified Communications Manager 4.1(3) and later, Cisco Unified Mobility Advantage, and Cisco Unified Mobile Communicator are supported.
- Cisco Unity Connection 8.5 and later supports the Cisco Unified Communications Manager Session Management Edition 8.5 and later.
- Integrations of Cisco Unity Connection 8.0 and later and Cisco Unified Communications Manager Express 3.4 are supported when the Cisco Unified Communications Manager Express 3.4 is installed on Cisco IOS® Software Release 12.4(6)T1 or later.
- Cisco Unity Connection 8.5 and later supports the Cisco Unified SIP Proxy integration.
- Cisco Unity Connection provides a browser-based system administration console and tools for easy installation and maintenance.
- Cisco Unity Connection provides fax integrations with the Cisco Fax Server (Version 9.0 and later), OpenText Fax Server (RightFax Edition Version 9.0 and later), and Sagemcom Xmedius Fax SP (Version 6.5.5).
- City and Department fields are available for administratively defined contacts.

System Administration Features

- The solution supports E.164 formatted phone numbers.
- Alternate extensions are configurable by the system administrator or user.
- Alternate key mappings for message retrieval can help you transition from traditional voicemail systems.
- Custom keypad mapping allows administrators to create TUIs for specific user needs. Call-routing rules can be configured to route calls to different conversation styles.
- Automatic gain control provides consistent message volume playback levels.
- Handlers provide building blocks for Automated-Attendant and intelligent call-routing functions.
- Call handlers accept calls, play recorded prompts, route calls, and accept messages.
- Directory handlers manage the way that callers search the directory.
- Interview handlers collect and record input from callers.
- You can customize directory handlers with a voice greeting.
- You can configure per-user message-handling actions to determine how messages of specific types are handled in the system, such as “accept the message”, “reject the message”, or “relay the message”.
- Caller ID is supported.
- Call screening is configurable.
- Class of service (CoS) controls user access to features.

- Administrators can create users individually or in bulk.
- Administrators can update users and distributions lists and their various settings in bulk.
- Administrators can create and update multiple alternate first and last names for contacts and users.
- Administrators can import users from Cisco Unified Communications Manager.
- Messages are day- and time-stamped.
- You can perform a directory search by spelling a username; you can enter up to 24 letters.
- You can log in to the TUI without entering your ID.
- Representational State Transfer-based application programming interfaces (APIs) for provisioning, messaging, telephony, and notifications allow integrations with existing corporate provisioning tools or messaging clients.
- Cisco Unity Connection 8.5 and later supports IPv6 addressing with Cisco Unified Communications Manager (7.1(2) or later) phone system integrations using Skinny Client Control Protocol (SCCP) and Session Initiation Protocol (SIP). The addressing mode is configurable by port group.
- Encrypted SCCP, Secure Real-Time Transport Protocol (SRTP), and Transport Layer Security/SRTP (TLS/SRTP) for SIP facilitates Cisco Unified Communications Manager integration.
- SIP support includes the following:
 - TLS/SRTP: Cisco Unified Communications Manager SIP trunk integrations support authentication and encryption of the Cisco Unity Connection voice messaging ports.
 - Keypad Stimulus Protocol (KPML): For Cisco Unified Communications Manager SIP trunk integrations, administrators can configure the integration to send dual-tone multifrequency (DTMF) keystrokes in the Real-Time Transport Protocol (RTP) media stream (in-band) or in a SIP message (out-of-band).
 - Port multiplexing: SIP integrations (such as for PIMG, TIMG, or Cisco SIP Proxy Server) can share the same SIP port on the Cisco Unity Connection server.
- Simple Network Management Protocol (SNMP) Versions 1, 2, and 3 are supported.
- Event logging is supported.
- Cisco Unity Connection 8.5 and later support application and database audit logging that tracks changes to the system in separate audit log files.
- Full mailbox warning is supported.
- You can create folders within a mailbox for inbox, deleted items, sent items, and draft items.
- Users can be set up for unified (single Inbox) or integrated (IMAP) messaging. These features can be enabled for individual users.
- Installation is simple and quick.
- A list of observed holidays is configurable.
- You can configure how Cisco Unity Connection handles messages that are interrupted by disconnected calls.
- MWI is supported, including enhanced MWI that displays a constant message count on certain Cisco Unified IP Phones.
- Multiple administrative levels allow you to control access to pages in the system administration GUI by CoS (read, modify, or delete rights).
- Music on hold (MOH) is supported.
- Nondelivery or delivery receipt reason details are presented in the GUI inbox.
- You can specify the public distribution lists to which new users will be added.
- Restriction tables are configurable.
- You can exclude return receipts.
- The system schedule is configurable.
- Self-enrollment allows you to set your password, record your voice name, and specify your directory listing.
- A status monitor allows for real-time administrator status of telephone ports, reports in progress, and system configuration.
- System broadcast messages for officewide announcements are supported.
- System greetings are configurable.
- The system offers 12- and 24-hour clock support for time stamps.
- The system time clock adjusts automatically for Daylight Savings Time.
- A TUI greetings administrator (Cisco Unity Connection Greetings Administrator) is supported.
- LDAP directory integration allows users to be quickly imported, synchronized, and authenticated within the directory.
- You can create up to nine mailbox stores in addition to the default mailbox store that is created when Cisco Unity Connection is installed.

<ul style="list-style-type: none"> • The system can be set up to shred voice messages for secure deletion. • Message recording expiration guarantees voice messages cannot be listened to after they reach a set expiration date. • Message aging alerts are supported. • You can simulate abbreviated extensions by using prepended digits for call handlers and user mailboxes. • You can create customized HTML notifications with actionable links and deliver them using SMTP. • You can use the new browser-based Mini-Inbox for more efficient playback and management of your voicemail on desktops, tablets, and mobile devices. • You can manage all Cisco Unity Connection and Cisco Unified Communications Manager licenses from a single management portal. • You can pool all Cisco Unity Connection licenses in your network on a single ELM.
Security
<ul style="list-style-type: none"> • Cisco Unity Connection uses Security-Enhanced Linux (SELinux) access-control policies to provide a secure system. • Password and PIN security policy options to enforce expiration, complexity, reuse, and lockout are supported. • Call-restriction tables to prevent toll fraud are supported. • Security event logging and reports of failed login and account lockouts to help prevent unauthorized PIN use are supported. • Secure, private messaging prevents the playing of private messages accidentally forwarded outside the enterprise. • A message-aging policy for secure messages automatically deletes all secure messages that are older than the specified number of days. • The system can be set up to shred voice messages for secure deletion. • Message recording expiration guarantees voice messages cannot be listened to after they reach a set expiration date. • Message-aging policies can be set on a per-user basis. • Secure RTP and signaling encryption provides for secure communication between Cisco Unity Connection and Cisco Unified Communications Manager. • A user telephone PIN reset feature in Cisco Unity Connection Assistant reduces help-desk calls and operating expenses. • Support for Secure HTTP (HTTPS) provides for secure web access to Cisco Unity Connection and allows for playback of secure messages within Microsoft Outlook.
Voice Quality
<ul style="list-style-type: none"> • G.722 and Internet Low Bitrate Codec (iLBC) voice codecs are supported (advertised or “on the line”). G.711 mu-law, G.711 a-law, and G.729 are also supported. • System-level recording is available for linear pulse code modulation (PCM), Global System for Mobile Communications (GSM) 6.10, G.711 mu-law, G.711 a-law, G.729a, and G.726 through system-based transcoding resources.
Reports
<ul style="list-style-type: none"> • Call Handler Traffic Report • Distribution Lists Report • Events Report • Outcall Billing Report • Port Usage Report • Users Report • User Message Activity Report • System Configuration Report • Transfer Call Billing Report • User Access Activity Report • User Lockout Report • Message Traffic Report • Port Activity Report • Mailbox Store Report

- Dial Plan Report

- Dial Search Scope Report

- For a full list and description of reports, refer to the Cisco Unity Connection System Administration Guide at: http://www.cisco.com/en/US/products/ps6509/prod_maintenance_guides_list.html.

Localization

The Cisco Unity Connection TUI, end-user GUI, and TTS engine are available in the following languages:

- Arabic (no TTS)
- Catalan
- Chinese (Hong Kong, Mandarin TUI with simplified and traditional Chinese GUI, simplified Mandarin TTS, but no traditional Mandarin TTS)
- Czech
- Danish
- Dutch
- English (U.S., U.K., and Australian)
- English TTY
- Finnish
- French (European and Canadian)
- German
- Greek
- Hebrew (no TTS)
- Hungarian
- Italian
- Japanese
- Korean
- Norwegian
- Polish
- Portuguese (Brazilian and European)
- Russian
- Spanish (European and Latin American)
- Swedish
- Turkish (no TTS)

Licensing

All user and interoperability functions are offered under a single, low-cost user license that you can use for voicemail, unified messaging, or integrated messaging. The ELM hosts Cisco Unity Connection licenses. The ELM can be running on the same server as Cisco Unity Connection or on a remote server.

System Requirements

The Cisco Unity Connection system runs as a virtual machine on the Cisco Unified Computing System or natively on the Cisco media convergence servers. You can mix Cisco Unity Connection Inbox, IMAP, and Cisco Unified Personal Communicator message access in a single deployment. Refer to the Cisco Unity Connection Supported Platform List for hardware configuration and scalability requirements:

http://www.cisco.com/en/US/products/ps6509/products_data_sheets_list.html.

For a full, updated list of supported email clients, web browsers, and desktop operating systems for use with Cisco Unity Connection, please visit

http://www.cisco.com/en/US/products/ps6509/products_device_support_tables_list.html.

Ordering Information

To place an order, visit the Cisco Ordering homepage at <http://www.cisco.com/en/US/ordering/index.shtml> and refer to Table 2. To download software, visit the Cisco Software Center at https://software.cisco.com/software/cs/ws/platform/home?locale=en_US#.

Table 2. Ordering Information

Product Name	Part Number
Cisco Unity Connection Release 9.0(1)	UNITYCN9-K9

Please refer to the Cisco Unity Connection Ordering Guide for detailed information about part numbers, descriptions, and packaging options (Cisco Partner access required):

http://www.cisco.com/web/partners/sell/technology/ipc/uc_tech_readiness.html#~7

This product is a part of Cisco Unified Workspace Licensing. Please visit

http://www.cisco.com/go/workspace_licensing for more information and to determine whether Cisco Unified Workspace Licensing is appropriate for your customer.

Cisco Services

Cisco Unified Communications Services allows you to accelerate cost savings and productivity gains associated with deploying a secure, resilient Cisco Unified Communications Solution. Delivered by Cisco and our certified partners, our portfolio of services is based on proven methodologies for unifying voice, video, data, and mobile applications on fixed and mobile networks. Our unique lifestyle approach to services can enhance your technology experience to accelerate true business advantage.



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