



System Release Notes for IP Telephony: Cisco Unified Communications System, Release 6.0(1)

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Overview

It is standard methodology for Cisco Systems to perform system-wide testing of the Cisco Unified Communications family of products, supplementing the product-level testing performed on each Cisco Unified Communications product. This document provides release notes for the testing conducted on systems composed of the following types of components:

- Call control components, such as Cisco Unified Communications Manager, Cisco Unified Communications Manager Business Edition, and Cisco Unified Presence
- Voice applications, such as Cisco Emergency Responder
- Conferencing components, such as Cisco Unified MeetingPlace, Cisco Unified MeetingPlace Express, Cisco Unified Videoconferencing, and Cisco Unified TelePresence
- Voice mail and unified messaging components, such as Cisco Unity, Cisco Unity Connection, and Cisco Unity Express
- Endpoints and clients, such as Cisco Unified IP Phone 7900 Series phones, Cisco IP Communicator, and Cisco Unified Personal Communicator
- Wireless and mobility components, such as Cisco Aironet Access Points, Cisco Unified Mobility Advantage, and Cisco Unified Mobile Communicator
- Security devices, such as Cisco ASA 5540 Adaptive Security Appliances, Cisco Catalyst 6500 Series Firewall Services Modules, and Cisco Security Agents
- Network management tools, such as Cisco Unified Operations Manager and Cisco Unified Service Monitor
- Communications infrastructure devices, such as Cisco routers, gateways/gatekeepers, and switches

**Note**

For a more complete list of IP telephony components that may be present in a Unified Communications Release 6.0(1) system, see [Software Version Matrix, page 25](#).

The focus of this document is on the IP telephony components of Cisco Unified Communications system testing. IP contact center components have also been tested. For additional information on contact center components, please see:

<http://www.cisco.com/iam/unified/ipcc601/index.htm>

A major deliverable of the System Release and Cisco Unified Communications testing is a recommendation of compatible software releases for customers that have been verified by the testing. The recommendations are not exclusive and are in addition to interoperability recommendations for each of the individual voice application or voice infrastructure products. For information on component software releases for Unified Communications Release 6.0(1), see [System Requirements, page 23](#). Software compatibility for all Unified Communications system releases, as well as updated compatibility information for this release, is available from the Cisco Unified Communications Compatibility Tool at:

<http://tools.cisco.com/ITDIT/vtgsca>

Tested Functionality

The system-wide testing of IP telephony functionality for Cisco Unified Communications Release 6.0(1) included the following:

- Testing on three distinct upgrade paths for North America IP telephony main components:
 - Multistage upgrade from IP Communications System Test Release 4.4 versions to Cisco Unified Communications Release 6.0(1) versions. For a list of the base Release 4.4 versions, see the *Systems Release Notes for North America IP Telephony: IP Communications Systems Test Release 4.4* at: http://www.cisco.com/univercd/cc/td/doc/product/voice/ip_tele/gblink/system/gbtst4x/4_4/rng44nip.htm
 - Multistage stage upgrade from Cisco Unified Communications Release 5.0(2) versions Cisco Unified Communications Release 6.0(1) versions. For a list of the base Release 5.0(2) versions, see the *System Release Notes for IP Telephony: Cisco Unified Communications System, Release 5.0(2)* at: <http://www.cisco.com/univercd/cc/td/doc/systems/unified/uc502/relnotes/rnipt502.htm>
 - Multistage stage upgrade from Cisco Unified Communications Release 5.1(1) versions Cisco Unified Communications Release 6.0(1) versions. For a list of the base Release 5.1(1) versions, see the *System Release Notes for IP Telephony: Cisco Unified Communications System, Release 5.1(1)* at: <http://www.cisco.com/univercd/cc/td/doc/systems/unified/uc511/relnotes/rnipt511.htm>

For a list of the target Cisco Unified Communications Release 6.0(1) versions that the main components were upgraded to, see [Software Version Matrix, page 25](#). System upgrade procedures are provided in the *System Installation and Upgrade Manual for IP Telephony* at: <http://www.cisco.com/univercd/cc/td/doc/systems/unified/uc601/siumipt/siumt601.pdf>

- Testing on a Multisite Distributed deployment topology, including changes to the following site models since Cisco Unified Communications Release 5.1(2):
 - Added a new North America site, Kalamazoo (AZO), designated the Medium Business with Remote Locations site model for load testing of Cisco Unified Communications Manager Business Edition.
 - Added a new North America site, Abilene (ABI), designated the Medium Campus site model to cover feature and functionality testing of new components.
- Addition of the Cisco Unified Communications Manager Business Edition to test medium-sized business deployments.
- Limited basic call functionality and load testing using mainline Cisco IOS Release 12.4(13b); see [Cisco IOS 12.4\(13b\) Mainline, page 22](#) for more information.
- Interoperability testing between Cisco Unified Communications Manager Release 6.0(1) and both Cisco Unified CallManager Release 5.1(1) and Cisco Unified CallManager Release 4.2(3).
- Infrastructure security implemented with Cisco ASA 5500 Series Adaptive Security Appliance (ASA), Cisco Catalyst 6500 Series Intrusion Detection System (IDS-2) Module, Cisco Intrusion Prevention System Appliance IPS-4200, and Cisco NAC Appliance (Clean Access).

New and Changed Features

This release of Cisco Unified Communications includes the following new or upgraded significant components since Release 5.1(1):

- [Cisco Unified Communications Manager, page 4](#) (formerly known as Cisco Unified CallManager)
- [Cisco Unified Communications Manager Business Edition, page 5](#)
- [Cisco Unified Communications Manager Express, page 6](#) (formerly known as Cisco Unified CallManager Express)
- [Cisco Unified Presence, page 6](#) (formerly known as Cisco Unified Presence Server)
- [Cisco Customer Response Solutions \(Unified Contact Center Express\), page 7](#)
- [Cisco Unified Application Environment, page 8](#)
- [Cisco Unified MeetingPlace, page 9](#)
- [Cisco Unified MeetingPlace Express, page 10](#)
- [Cisco Unity, page 11](#)
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- [Cisco Unity Express, page 13](#)
- [Cisco IP Communicator, page 14](#)
- [Cisco Unified Personal Communicator, page 15](#)
- [Additional Cisco Unified IP Phone Support, page 16](#)
- [Cisco Unified Mobility Advantage and Cisco Unified Mobile Communicator, page 17](#)
- [Cisco Unified Operations Manager, page 17](#)
- [Cisco Unified Service Statistics Manager, page 18](#)
- [Cisco Unified Provisioning Manager, page 19](#)
- [Cisco Unified netManager - Unified Communications, page 19](#)
- [Cisco Monitor Manager and Cisco Monitor Director, page 20](#)
- [Cisco IOS 12.4\(15\)T, page 20](#)
- [Cisco IOS 12.4\(11\)XW2/Unified Communications Manager Express 4.2, page 21](#)
- [Cisco IOS 12.4\(13b\) Mainline, page 22](#)
- [Secure Conferencing, page 22](#)

The following sections list the features of each new or upgraded component tested in this release.

Cisco Unified Communications Manager

Unified Communications Manager Release 6.0(1) includes the following changes and updates to functionality since Unified CallManager Release 5.1(2):

- Call recording and silent call monitoring:
 - The Call Recording feature allows system administrators or authorized personnel to archive conversations between the agent and the customer.
 - The Silent Call Monitoring feature allows a supervisor to eavesdrop on a conversation between an agent and a customer without allowing the agent to detect the monitoring session.

- Enhancements to CTI that support new standard CTI user groups for monitor and record functionality and expanded SIP support, which allows CTI applications such as Cisco Unified Communications Manager Assistant to support Cisco SIP IP Phones.
- New phone system features including Programmable Line Keys, Intercom, Hold Reversion, Message Waiting Indicator (MWI) audio notification, and Do Not Disturb (DND).
- SIP Trunk enhancements such as Advanced Audio Codec (AAC) and Internet Low Bit Rate Codec (iLBC) audio codecs were added to the user interface of the Cisco Unified CallManager Administration.
- Support for Cisco Unified IP Phone 7931 models.
- Support for secure conferencing on the following:
 - Intracluster trunks (ICTs), H.323 trunks/gateways, and MGCP gateways.
 - With SRTP encryption, over a secure TLS or IPSec connection.
 - Licensed CTI devices.



Note Secure conferencing is not supported for encrypted phones running firmware Release 8.2 or earlier and when the conference involves SIP trunks. For more information on the secure conferencing feature, see [Secure Conferencing, page 22](#).

- Peer-to-peer image distribution (PPID).
- Wideband codec support now includes AAC and G.722.

For a detailed description of these features and functionality, see *Release Notes for Cisco Unified Communications Manager Release 6.0(1)* at:

http://www.cisco.com/en/US/docs/voice_ip_comm/cucm/rel_notes/6_0_1/601cmrn.html

Cisco Unified Communications Manager Business Edition

The new Unified Communications Manager Business Edition product was added to the Cisco Unified Communications solution set as part of Release 6.0(1). Unified Communications Manager Business Edition is designed for medium-sized businesses with up to 500 employees and up to five remote sites. It integrates the benefits of voice, video, mobility, and messaging on a single platform. Previously, organizations needed one hardware server for each application.

The Unified Communications Manager Business Edition consists of the following core components:

- Unified Communications Manager 6.0(1) with integrated mobility features
- Unity Connection 2.0(1)
- MCS 7828 Media Convergence Server

The Unified Communication Manager Business Edition also supports integration with Cisco netManager - Unified Communications, which provides easy-to-use, immediately available monitoring and diagnostics for medium-sized businesses (see [Cisco Unified netManager - Unified Communications, page 19](#) for more information).

For more information on the features and functionality of Unified Communications Manager Business Edition, see *Cisco Unified Communications Manager Features and Services Guide for Cisco Unified Communications Manager Business Edition, Release 6.0(1)* at:

http://www.cisco.com/en/US/docs/voice_ip_comm/cucmbe/admin/6_0_1/ccmfeat/befsgd601.html

Cisco Unified Communications Manager Express

Unified Communications Manager Express Release 4.1 includes the following changes and updates to functionality since Unified CallManager Express Release 4.0(2):



Note

In order to use Unified Communications Manager Express and Unified Contact Center Express Release 5.0(1) in the same network, you must use Unified Communications Manager Express Release 4.2 running on Cisco IOS Software Release 12.4(11)XW2. See [Cisco IOS 12.4\(11\)XW2/Unified Communications Manager Express 4.2, page 21](#) for more information on this interoperability requirement.

- Eight-party impromptu and 32-party Meet Me (reservationless and no passwords) conferencing.
- SCCP hardware conferencing.
- Out-of-dialog refer (OOD-R) feature which allows applications to establish calls using a SIP gateway or Cisco Unified Communications Manager Express server. The application sets up the call and the user does not dial out from their own phone.
- Busy Lamp Field (BLF) line status for buttons and directory of missed calls that shows the internal calling party's phone (busy or idle) status.
- Extension assigner that allows the phone to be plugged in anywhere; the extension number can be assigned using built-in prompts.
- New Session Initiation Protocol (SIP) support for Cisco Unified IP Phone 7906G, 7911G, 7941G, 7961G, 7970G, and 7971G-GE models.
- Music on Hold and corporate directory for SIP phones.
- Service provider feature enhancement for call transfer between sites through SIP Trunk Refer/3xx Disable for supplementary features.

For a detailed description of these features and functionality, see the appropriate Cisco Unified Communications Manager Express Features Guides at:

http://www.cisco.com/en/US/products/sw/voicesw/ps4625/products_feature_guides_list.html

Cisco Unified Presence

Unified Presence Server Release 6.0(1) includes the following changes and updates to functionality since Unified Presence Server Release 1.0(3):

- Enhanced Presence features in conjunction with Unified Communications Manager users
- Enhanced Presence service for mobility users
- Support for Unified Presence policy enhancements to allow for greater user preferences and user control of presence
- Support for integration of Location and Calendaring as part of Rich Presence for Unified Presence
- Support for greater scalability for Unified Presence
- Unified Presence infrastructure enhancements
- Enhanced application interface to allow for rapid presence service development
- Serviceability enhancements

For a detailed description of these features and functionality, see the *Release Notes for Cisco Unified Presence Release 6.0(1)* at:

http://www.cisco.com/en/US/docs/voice_ip_comm/cups/6_0_1/rel_notes/cup601rn_wb.pdf

Cisco Unified Communications 500 Series for Small Business

The new Cisco Unified Communications 500 Series for Small Business (Cisco Unified 500 Series) product was added to the Cisco Unified Communications solution set as part of Release 6.0(1). The Cisco Unified 500 Series product family is an all-in-one, simple, smart, and affordable unified communications solution designed specifically for growing businesses with 8 to 50 employees. Each configuration of Cisco Unified 500 Series is tied to a maximum number of supported users and includes relevant licenses for call control, voice messaging, and Cisco Unified IP Phones. The core components of the Cisco Unified 500 Series include:

- Cisco Unified IP phones, including wireless handsets and Session Initiation Protocol (SIP) phones
- Cisco Unified Communications Manager Express for call processing
- Cisco Unity Express for voice messaging and Automated Attendant
- LAN switching, integrated and expandable through Cisco Catalyst® Express 520 Series Switches
- Security, firewall, and VPN capabilities
- Optional wireless LAN capability
- Cisco Configuration Assistant for GUI-based customization of the solution

The Cisco Unified 500 Series platform includes 8 switched Power-over-Ethernet (PoE) ports, 4 foreign exchange stations (FXS) ports, 4 foreign exchange office (FXO) or 2 ISDN BRI ports for international deployments, voice messaging, automated attendant, a music-on-hold (MoH) audio port, a WAN Ethernet uplink port, an Ethernet expansion port, and a console/aux port.

To physically expand the base configuration of 8 PoE ports to a larger number of user densities, the solution supports a Cisco Unified Communications companion switch. The specialized companion switch is part of the Cisco Catalyst Express family and supports simplified and immediately operational deployments.

For more information on Unified Communications 500 Series for Small Business, see *Release Notes for Cisco Unified 500 Series Version UC520-4.2(0)* at:

http://www.cisco.com/en/US/products/ps7293/prod_release_note09186a00808519a5.html

Cisco Customer Response Solutions (Unified Contact Center Express)

Cisco Customer Response Solutions (Unified Contact Center Express) Release 5.0(1)SR1 includes the following changes and updates to functionality since Unified Contact Center Express Release 4.5(2):

- Compatibility with Unified Communications Manager 5.1 and Unified Communications Manager 6.0(1).
- Compatibility with Unified Communications Manager Express 4.2.



Note

In order to use Unified Communications Manager Express and Unified Contact Center Express Release 5.0(1) in the same network, you must use Unified Communications Manager Express Release 4.2 running on Cisco IOS Software Release 12.4(11)XW2. See [Cisco IOS 12.4\(11\)XW2/Unified Communications Manager Express 4.2, page 21](#) for more information on this interoperability requirement.

- Support for the Windows 2003 Server operating system.
- Support for a deployment with an additional server for high availability.
- Support for Cisco Telepresence Virtual Agent Solution, which enables enterprises to create a live, face-to-face interaction with customers over the network.
- Enhanced installation, upgrade, and patching procedures through simplified wizards.
- New historical reports.
- New log collection tool and support tool for serviceability.
- Cisco Unified E-Mail Interaction Manager (Unified EIM) and Cisco Unified Web Interaction Manager (Unified WIM).
- Workforce Optimization (WFO) including Cisco Workforce Management and Cisco Quality Management.
- Cisco Unified Contact Center Express Outbound Preview Dialer (Outbound), which enables configuring contact centers for automated Outbound activities and allows agents who are not busy with inbound calls to perform outbound calls.
- Wrap-up feature, which provides wrap-up data to track the frequency of activities, to identify the account to which a call is charged, and to provide information for other similar situations.
- New Backup and Restore application now embedded in the Cisco CRS Administrator. You do not need to install it separately on a remote server.

For a detailed description of Customer Response Solutions (Unified Contact Center Express) features and functionality, see *Release Notes for Cisco Customer Response Solutions 5.0(1)* at:

http://www.cisco.com/application/pdf/en/us/guest/products/ps6879/c1178/ccmigration_09186a008063b195.pdf

Cisco Unified Application Environment

The Cisco Unified Application Environment Release 2.4 was added to the Cisco Unified Communications solution set as part of Release 6.0(1). The Cisco Unified Application Environment is a development and runtime platform designed for creating, deploying, and executing converged voice and data applications. It is integrated with Cisco Unified Communications Manager and Cisco Unified Presence.

The Cisco Unified Application Environment is made up of the following components:

- Cisco Unified Application Server
- Cisco Unified Media Engine
- Cisco Unified Application Designer

The Cisco Unified Application Environment can be used to create applications supporting the following IP telephony functions:

- Presence
- Mobility
- Recording
- Paging
- Conferencing
- Speech-enabled applications

- IP phone services
- Other voice and data converged applications

For a detailed description of Unified Application Environment features and functionality, see *Release Notes for the Cisco Unified Application Environment (2.4)* at:

http://www.cisco.com/en/US/products/ps7058/prod_release_note09186a00807de870.html

Cisco Unified MeetingPlace

Unified MeetingPlace Release 6.0 includes the following changes and updates to functionality since Release 5.4:

- The Java-based Unified MeetingPlace meeting console has been replaced in Release 6.0(1) with a new Adobe Flash-based client that requires Adobe Flash Player on end-user computers. The new console supports the following features:
 - Presenters can upload and share PowerPoint files containing animations and effects created through Adobe Presenter. Uploaded PowerPoint files are converted to presentations, which provide presenters with additional controls for navigating the presentation.
 - Meeting moderators can set a picture or animation as the background for the meeting room. The moderator can choose the background image from the list of attachments that have been loaded for the meeting (either from the Attachments page in the scheduling interface or from the Sharing tool).
 - Meeting moderators can view connection speed information for all participants. If participants are using a variety of connection speeds, the moderator can select a meeting room bandwidth level to determine the speed (kilobits per second) at which data from the meeting is sent to participants.
 - Moderators can determine the speed of a participant connection by mousing over the participant name in the Participant List tool. Moderators can also turn on network connection status indicators which display a group of bars, similar to the bars indicating signal strength on a cell phone, next to each name in the Participant List tool to indicate the connection status of the participant.
 - Meeting moderators can use the Invite Participants option in the Meeting menu of the meeting room to generate a URL that can be sent to invite additional meeting participants. The Invite Participants dialog box also allows the moderator to compose an e-mail message containing the URL and other meeting information to send to new invitees.
 - Meeting moderators can use the Connect Selected User or Connect New User options in the Voice/Video Options menu of the Participant List to add a new phone participant to the meeting by dialing out to him or her.
 - Linux and Unix users can attend and participate in meetings by using the same Flash-based meeting console that Windows and Macintosh users use. Participants on these systems with Moderator or Presenter permissions can share a whiteboard or meeting attachment, view shared files, and make annotations, but they cannot share files that reside on their systems with other participants.
- Unified MeetingPlace can now be integrated with Jabber instant-messaging servers (requires additional Unified MeetingPlace software installed on the Jabber server).
- The new Cisco Unified MeetingPlace for Office Communicator enables users to initiate and control an ad-hoc Cisco Unified MeetingPlace audio conference from a Microsoft Office Communicator (MOC) client. In-conference controls in the MOC client include adding, muting, renaming or removing participants and locking/unlocking or ending the conference.

- When using the Cisco Unified MeetingPlace for Outlook scheduling form to schedule a Cisco Unified MeetingPlace meeting, users can select a meeting template for the meeting. The template controls the meeting room format and participant permissions for the meeting.
- Cisco Unified Personal Communicator users can launch ad-hoc Cisco Unified MeetingPlace web conferences from their Cisco Unified Personal Communicator clients in order to share and collaborate on a whiteboard, desktop, application, or document. These ad-hoc conferences do not include Cisco Unified MeetingPlace audio; participants can join the meeting room via their Cisco Unified Personal Communicator clients but can not dial in to the conference or dial out to a phone from the meeting room.
- System administrators can now view scheduled and actual peak web port usage that occurs across several days by using the Summary Web Port Utilization Tool. This tool generates a Summary Web Port Usage chart. Each chart can show up to one month of peak port usage, including summary port utilization, and can optionally display the following information:
 - Average and distribution range for scheduled ports
 - Average and distribution range for actual ports used
- Meeting statistics can now be retained longer, for an entire year. The maximum value for the Days Until Mtg Stats Purged field has been increased from 180 days to 365 days.
- Report enhancements, including the following changes:
 - The Billing Information (Detail) Report now includes the billing rate per minute for video. The report also includes the total amount of time per billing code spent in each meeting broken out by voice, full web, roster-only web, and video minutes.
 - The Meeting Attendance by User Report lists the time spent in a meeting broken out by voice, full web, roster-only web, and video minutes.
 - The Meeting Information Report lists the time spent in a meeting broken out by voice, full web, roster-only web, and video minutes.
 - The Permanent Meetings Report has been renamed to the Continuous Meetings Report. In addition, the report includes the total amount of time spent in each meeting broken out by voice, full web, roster-only web, and video minutes.
- The Cisco Security Agent for Cisco Unified MeetingPlace is now supported on the Cisco Unified MeetingPlace Web Conferencing server.

For a detailed description of these features and functionality, see the Release Notes for various Unified MeetingPlace components available at:

http://www.cisco.com/en/US/products/sw/ps5664/ps5669/prod_release_notes_list.html

Cisco Unified MeetingPlace Express

Unified MeetingPlace Express Release 2.0(1) includes the following changes and updates to functionality since Release 1.2:

- Support for H.263 and H.264 AVC video compression added to the existing scheduled and reservationless meeting architecture in Cisco Unified MeetingPlace Express. Video ports are licensed and managed separately from the existing voice ports.
- New segmented meeting access (SMA) feature that allows the optional deployment of a second server in a DMZ to provide a complete separation between internal and external web meetings. Voice and video meetings will continue to be hosted on a single server behind a corporate firewall. SMA provides a more secure option than doing all web conferencing via service providers.

- Inclusion of Cisco Security Agent (CSA) security software provides threat protection for server and desktop computing systems. Cisco Unified MeetingPlace Express Release 2.0.1 automatically includes the CSA. No installation or configuration is necessary.
- A new auto attend feature that allows users to call into the Cisco Unified MeetingPlace Express system and be automatically placed into a meeting.
- Integration with Cisco Unity Connection Release 2.0(1), allowing mobile users to access meetings using speech commands.

For a complete and detailed description of new Cisco Unified MeetingPlace Express features and functionality, see *Release Notes for Cisco Unified MeetingPlace Express Release 2.0* at:

http://www.cisco.com/en/US/products/ps6533/prod_release_note09186a008085deae.html

Cisco Unity

Unity Release 5.0(1) includes the following changes and updates to functionality since Release 4.2(1):

- Numerous Cisco Unity conversation (also known as telephone user interface or TUI) enhancements were made, including:
 - Full mailbox warnings for subscribers and full mailbox checks when outside callers attempt to leave messages on Cisco Unity with Lotus Domino.
 - Warnings to subscribers when they attempt to reply to all recipients of a message and recipient list is larger than a specified limit.
 - Conversation settings added to the Cisco Unity Assistant so that subscribers can now adjust their own values.
 - Adjustable timeout settings that can be set for all subscribers, groups of subscribers, or individual subscribers.
 - The ability to reset Custom Keypad Mapping conversations to match the keys Cisco uses internally.
 - The option of granting subscribers the ability to customize Setup Options Menu options such as Greetings, Message Settings, Personal Settings, and Transfer Settings.
 - Dropped Call Recovery which permits subscribers that inadvertently disconnect while listening to or sending messages to call back into Cisco Unity within a specified period of time and resume the activity without losing their place.
 - When leaving or forwarding messages, Cisco Unity can now be configured to prompt subscribers to record a message or introduction first, before prompting them to address it (in previous releases, messages had to be addressed first).
 - The ability to specify the amount of time to skip back or ahead when rewinding or fast-forwarding messages during message playback.
 - The ability to specify how Cisco Unity behaves when calls are disconnected while subscribers are in the process of sending, replying to, or forwarding a message.
 - A Spoken Commands feature enables subscribers using the Press-or-Say input style to say the name of a menu option, as an alternative to pressing the touchtone key or saying the key number that corresponds to the menu option.

- A new Remote Message Monitor feature has been added which allows subscribers to be notified on a remote phone such as a mobile phone when their primary extension is called, and provides them with two options for managing the call:
 - Listen to the message as the caller records it.
 - Connect to the caller who is recording the message.
- Diagnostic trace formatting has been improved and new micro traces have been added to the Cisco Unity Diagnostic Tool (UDT).
- Message notification and message waiting indicator (MWI) behavior has been modified.
- Quality of Service (QoS) settings for call signaling (SIP and SCCP) and for the media stream (RTP audio) are now configurable.
- New support for routing calls based on either the first or last redirecting number when a call is forwarded to Cisco Unity.
- When using Cisco Unity with Microsoft Exchange, SMTP Networking is no longer supported; this functionality is replaced by VPIM Networking.
- Depending on the system platform and system configuration, Cisco Unity can now support up to a total of 144 voice messaging ports.
- Tempu logs now provide a history of installations and upgrades on a Cisco Unity server.

For a complete and detailed description of new Cisco Unity features and functionality, see *Release Notes for Cisco Unity Release 5.0(1)* at:

http://www.cisco.com/en/US/docs/voice_ip_comm/unity/5x/release/notes/501curelnotes.html

Cisco Unity Connection

Unity Connection Release 2.0 includes the following changes and updates to functionality since Release 1.2(1):

- Unity Connection servers now runs the Linux operating system and a Cisco Security Agent stand-alone agent is installed automatically when you install Unity Connection.
- Unity Connection can now exist in a co-resident configuration with Unified Communications Manager in the new Cisco Unified Communications Manager Business Edition product (see [Cisco Unified Communications Manager Business Edition, page 5](#) for more information).
- Modified GUI with a consistent appearance to Unified Communications Manager.
- Support for VPIM Networking.
- Support for the following features with Exchange 2007 that were formerly supported only with Exchange 2000 and Exchange 2003:
 - Basing personal call transfer rules on data in Exchange 2007 calendars and contacts.
 - Accessing Exchange 2007 e-mail by using text to speech.
- Log Viewer Port and Status Monitor have been incorporated into a Real-Time Monitoring Tool.
- Some platform- and Unity Connection-specific administrative tasks can now be performed using a command-line interface (CLI).
- Unity Connection Disaster Recovery Backup and Restore tools have been replaced by the Disaster Recovery System.

For a detailed description of these features and functionality, see *Release Notes for Cisco Unity Connection Release 2.0(1)* at:

http://www.cisco.com/en/US/docs/voice_ip_comm/connection/2x/release/notes/201ucrn.html

Cisco Unity Express

Unity Express Release 3.0(1) includes the following changes and updates to functionality since Release 2.3(3):

- The ability to support audio prompts in multiple languages on the system at one time. The number of languages supported depends on the specific network module or AIM installed. The NME-CUE, NM-CUE-EC, and NM-CUE network modules can support up to 5 languages to be installed concurrently. The 1-GB AIM-CUE supports up to 2 languages to be installed concurrently.
- Cisco Unity Express Editor Express is a simplified GUI tool for administering auto-attendant call-flows. This simplified GUI tool provides high-level steps for creating and modifying auto-attendant call-flows, and the script generated by Editor Express can be viewed using the Cisco Unity Express Editor.
- Fax Integration enables voice mail subscribers to receive voice mail and faxes on the same mailbox using one extension, or enable voice mail subscribers to create separate extensions, one for voice mail and one for faxes.
- In previous versions, Cisco Unity Express supported the configuration of holidays for three years. In this version, “fixed holidays” that are always on the same date can be configured permanently.
- The new Historical Reporting feature provides information about call and application activities on the system.
- Beginning in this release, the integrated messaging feature is supported on the AIM-CUE. This feature allows subscribers to have an integrated view of their e-mails and voice-mail messages from a single e-mail client using IMAP Version 4 rev1.
- By default, Cisco Unity Express plays all message properties, including the sender information, date and time that the message was sent, and other details. Voice mail administrators can now customize which message properties that voice mail subscribers will hear when retrieving a message. Administrators can exclude information on sender, data and time, or the day of the week that the message was sent. Voice mail administrators can also configure the system to play a summary of new messages in all of the GDMs associated to a user when that user calls in.
- The new Live Record feature enables voice mail subscribers to record a conversation. The recorded conversation is saved in the subscriber's mailbox. Subscribers can then play or forward the recorded conversation to another subscriber or group of subscribers.
- The new Live Reply feature enables a voice mail subscriber who is listening to voice messages by phone or through VoiceView Express to reply live to a message by calling the sender directly, whether the sender is an internal Cisco Unity Express voice mail subscriber or an external caller.
- Message Notification Cascading allows voice mail subscribers to set up a series of notifications to a widening circle of recipients, and lets subscribers define time-based rules to cascade the notifications to other local subscribers in the system. Notifications cannot be sent to remote users or external users, and notifications will not cascade for private messages and broadcast messages.
- Voice mail subscribers now have the ability to compose a voice message for delivery to external numbers or nonsubscribers. Subscribers using Cisco Unity Express can compose a voice mail to specific external numbers at a pre-defined time, and the messages can be scheduled for delivery up to one year in advance.

- By default, when callers leave a message on a mailbox, the caller is either disconnected or transferred to the auto-attendant. If configured by the voice mail administrator, callers can now leave multiple messages on the same mailbox or on other mailboxes without being disconnected or being transferred to the auto-attendant.
- Beginning with this version, Cisco Unity Express supports Interactive Voice Response (IVR) as a major component of the system in addition to Voice-Mail and Auto-Attendant. To use IVR, you must purchase an additional software license and install it on your system.
- The new Outbound Email Notification enables E-mails sent from Cisco Unified Express to be directed to a configurable SMTP server.
- The new Outbound Fax Notification feature enables outbound faxes to be sent from Cisco Unity Express. Faxes are sent to a configurable Fax SMTP server.
- The Cisco Unity Express IVR real-time statistics collection tool provides real-time statistics on key workflow components, such as contacts, application tasks, and engine tasks. This real-time reporting feature provides summary or detailed real-time statistics for each contact or application.

For a detailed description of these features and functionality, see *Release Notes for Cisco Unity Express Release 3.0* at:

http://www.cisco.com/en/US/products/sw/voicesw/ps5520/prod_release_note09186a0080857e89.html

Cisco IP Communicator

Cisco IP Communicator Release 2.1 includes the following changes and updates to functionality since Release 2.0(2):

- Support for Windows Vista operating system.
- Adjunct licensing with Cisco Unified Communications Manager, which allows you to associate a secondary soft-phone device with a primary device and consume only one device license per device.
- Audio quality enhancements such as echo cancellation, noise suppression, voice activity detection, and silence suppression.
- Bandwidth reservation through Windows generic quality of service (GQoS) for improved audio quality when Cisco IP Communicator is used over networks with limited bandwidth.
- Support for SIP endpoints with Session Initiation Protocol (SIP) signaling.
- Enhanced security against device spoofing, which prevents Cisco IP Communicator from impersonating another Unified IP Phone.
- Support for the Cisco Unified IP Phone 7970 firmware 8.0(4) code base for features such as call pickup notification, directed call park, and logging out of hunt groups.

For a detailed description of new and enhanced features and functionality, see *Release Notes for Cisco IP Communicator Release 2.1* at:

http://www.cisco.com/en/US/products/sw/voicesw/ps5475/prod_release_note09186a0080758002.html

Cisco Unified Personal Communicator

Cisco Unified Personal Communicator Release 1.2(1) includes the following changes and updates to functionality since Release 1.1(2):

- Support for Windows Vista operating system.
- TFTP download of the Cisco Unified Communications Manager configuration files needed for Cisco Unified Personal Communicator soft-phone operation.
- Integration with Cisco Unity through an Internet Mail Access Protocol (IMAP) connection with the voice-mail repository on the Exchange server, including the following features:
 - Ability to download, play, sort, delete, and purge voicemail (no additional licensing costs are incurred)
 - Support for G.729-encoded playback in Cisco Unified Personal Communicator of voice-mail messages received from Cisco Unity servers
 - Ability to encrypt user credentials to the voice-mail server and encrypt downloaded voice-mail messages.
 - Support for both Cisco Unity unified messaging (both voice mail and e-mail) and Cisco Unity voice messaging (voice mail only) configurations.
 - Message waiting notification when new messages arrive.
- Integration with Cisco Unified MeetingPlace through HTTP and HTTPS requests.
- Failover from a primary to one of the back-up servers:
 - Cisco Unified Communications Manager (for soft-phone mode)
 - CTI gateway (for desk-phone mode)
 - LDAP server
- Person-to-person instant messaging (IM), the ability to communicate using IM with another Cisco Unified Personal Communicator user registered to the same Cisco Unified Presence server.
- Improved reachability, such as allowing users to select Out of Office and an associated message when they are logged off of Cisco Unified Personal Communicator for extended periods (for example, “On vacation; back in two weeks”) and reachability based on line appearances rather than being limited to presence for a whole phone line.
- Improved accessibility, such as each menu item now having a mnemonic (Windows only) or access key (for example Q for Quit).
- Serviceability improvements, including:
 - Additional triggers for call statistics collection
 - Displays about the health of connections to back-end servers
 - Input device status that allows Cisco Unified Personal Communicator to recognize whether an input device (such as an external or built-in microphone, USB headset, video camera, and so forth) is properly registered and display information in an Input Device Status window. If a device become unavailable, Cisco Unified Personal Communicator prompts the user to re-enter their device choices.
 - Detailed debug trace settings to aid in troubleshooting.

- Microsoft Outlook integration enhancements, including:
 - The ability to click-to-dial phone numbers from within the Outlook Address Book application.
 - Cisco Unified Presence makes available the free and busy information from the Exchange server to Cisco Unified Personal Communicator for use when computing a users reachability state.
- The ability to add contacts found in a LDAP directory to the contact list in Cisco Unified Personal Communicator.

For a detailed description of these features and functionality, see *Release Notes for Cisco Unified Personal Communicator, Release 1.2* at:

http://www.cisco.com/en/US/products/ps6844/prod_release_note09186a00807f9c35.html

Additional Cisco Unified IP Phone Support

Cisco Unified Communications Release 6.0(1) introduces support for the following new phone models:

- Cisco Unified IP Phone 7931, which supports IEEE 802.3af Power over Ethernet, security, and other calling features, dedicated hold, redial, and transfer keys that facilitate call handling, and illuminated mute and speakerphone keys that provide a clear indication of speaker status.
- Cisco Unified IP Phone 7942G, Cisco Unified IP Phone 7945G, Cisco Unified IP Phone 7962G, Cisco Unified IP Phone 7965G, and Cisco Unified IP Phone 7975G. These phones comprise a suite of evolutionary Cisco Unified IP Phone 7900 Series endpoints that extend the features and functionality of the existing 7941x, 7961x and 797x phones, while enhancing the end-user experience through high-fidelity wideband audio, new color displays, and other features. These new phones provide:
 - Backlit TFT color displays on the Cisco Unified IP Phone 7945G/7965G/7975G models and high-resolution 4-bit grey scale displays on the Cisco Unified IP Phone 7942G/7962G models.
 - An integrated Gigabit Ethernet switch and a four-way navigation rocker with Select key on Cisco Unified IP Phone 7945G/7965G/7975G models.
 - High-quality wideband audio (G.722 / TIA920-adherent) on all models, including handset, speakerphone and headset (although a 3rd party wideband headset must be purchased separately). Also, iLBC narrow band codec is supported on all models.
 - All call features and other features/functions supported by existing Cisco Unified IP Phones 7941Gx, 7961Gx, and 797x models.

For more information on Cisco Unified IP Phone models, see the appropriate release notes at:

http://www.cisco.com/en/US/products/hw/phones/ps379/prod_release_notes_list.html

Cisco Unified Mobility Advantage and Cisco Unified Mobile Communicator

Two additional mobility products—Cisco Unified Mobility Advantage and Cisco Unified Mobile Communicator— were added to the Cisco Unified Communications product family for Release 6.0(1). Cisco Unified Mobility Advantage is the server in the enterprise that Cisco Unified Mobile Communicator clients connect to via a Proxy Server. Cisco Unified Mobility Advantage is deployed behind the enterprise firewall and serves as the integration point for all enterprise services. Cisco Unified Mobility Advantage consists of two servers:

- Cisco Unified Mobility Advantage Enterprise Server
- Cisco Unified Mobility Advantage Proxy Server

Cisco Unified Mobile Communicator is a software application installed on a mobile phone that enables more effective communications by extending office communication applications and services to the mobile phone. Cisco Unified Mobile Communicator allows users to:

- Place and receive calls and secure text messages
- Access up-to-date corporate and personal directory contacts
- Check the Availability Status of other Mobile Communicator users (see who is available to communicate or who prefers not to be disturbed)
- Be alerted to office voicemail messages, see a list of voicemail messages, and select messages for playback
- Receive Cisco Unified MeetingPlace and MeetingPlace Express notifications and dial into conferences
- Keep track of missed, dialed, and received calls on both the mobile phone and an office phone



Note

This release supports Cisco Unified Mobile Communicator for BlackBerry devices only.

For more information on these new products, see *Cisco Unified Mobility Advantage 3.0 and Cisco Unified Mobile Communicator 3.0 Release Notes* at:

http://www.cisco.com/en/US/docs/voice_ip_comm/cuma/3_0/english/release/notes/cuma_cumc_rn.pdf

Cisco Unified Operations Manager

Cisco Unified Operations Manager Release 2.0.1 includes the following changes and updates to functionality since Release 2.0:

- Ability to create and run phone tests on demand using the UI to select, from the phone report, the phones that need to be tested.
- Support for Cisco TelePresence System.
- Ability to identify and generate reports for all Cisco 1040 Sensors connected to the switches that Cisco Operations Manager monitors.
- Ability to identify and monitor Rich Media Appliance support in Cisco Unified Communications Manager. Includes a new icon for the Rich Media Appliance in the Service Level View.
- Changes to the phone search, allowing for wildcard entries for extension number, IP address, and MAC address. The first matched result displays the corresponding Tree and Map View.

- Changes to the topology, include the following:
 - Avoidance overlaps of links and node icons.
 - Higher resolution displays.
- Support for the following Cisco Unified IP Phone models:
 - Cisco Unified IP Phone 7931
 - Cisco Unified IP Phone 7911

For a detailed description of these features and functionality, see *Release Notes for Cisco Unified Operations Manager 2.0.1* available at:

http://www.cisco.com/en/US/products/ps6535/prod_release_notes_list.html

Cisco Unified Service Monitor

Cisco Unified Service Monitor Release 2.0.1 includes the following changes and updates to functionality since Release 2.0:

- Support for:
 - Cisco Unified Communications Manager 6.0(1)
 - Internet Explorer 7.0
 - Secure Socket Layer (SSL)
- Thresholds—Configurable by device type.
- Sensors—Editable in bulk.
- Scheduling for:
 - Low-volume processing (during system maintenance).
 - Data purging.
- New configuration options:
 - Number of records (30,000-64,000) to export to CSV files.
 - Number of minutes (1-4) to search for data for diagnostic reports.

For a detailed description of these features and functionality, see *Release Notes for Cisco Unified Service Monitor 2.0.1* at:

http://www.cisco.com/en/US/products/ps6536/prod_release_note09186a00807ee746.html

Cisco Unified Service Statistics Manager

The new Cisco Unified Service Statistics Manager was added to the Cisco Unified Communications solution set as part of Release 6.0(1). Unified Service Statistics Manager is a network management product that collects and stores short-term operational data to perform longer-term analysis of IP telephony service quality, service availability, call volume, service trends, and resource utilization. Unified Service Statistics Manager does the following:

- Extracts data collected by Unified Operations Manager and Unified Service Monitor and stores this short-term data in the Service Statistics Manager database. Unified Operations Manager and Unified Service Monitor collect Cisco Unified Communications statistics from various Cisco devices and systems.

- Analyzes the stored data and generates out-of-the box reports designed for users in executive, operations, capacity planning, and network administration roles.

Depending on license level, Unified Service Statistics Manager can also enable you to define Service Level Agreements (SLAs) as well as measure and verify them based on collected statistics.

For a detailed description of these features and functionality, see *Release Notes for Cisco Unified Service Statistics Manager 1.0* available under:

http://www.cisco.com/en/US/products/ps7285/tsd_products_support_series_home.html

Cisco Unified Provisioning Manager

Cisco Unified Provisioning Manager was added to the Cisco Unified Communications solution set as part of Release 6.0(1). Unified Provisioning Manager Release 1.1 includes the following functionality:

- Provisioning support for the following products/versions:
 - Cisco Unified Communications Manager 5.1(1) and 6.0(1)
 - Cisco Unified Communications Manager Express 4.1
 - Cisco Unified Personal Communicator 1.1 and 1.2
 - Cisco Unified MobilityManager through Cisco Unified Communications Manager 6.0(1)
 - Cisco Unity 5.0
 - Cisco Unity Connection 2.0
 - Cisco Unity Express 3.0
 - Cisco Unified IP Phone 7931G
- The ability to delete the following from Unified Provisioning Manager:
 - Call Processors
 - Unified Message Processors
 - Domains
 - Service Areas

For a detailed description of these features and functionality, see *Release Notes for Cisco Unified Provisioning Manager 1.1* at:

http://www.cisco.com/en/US/products/ps7125/prod_release_note09186a00807fa536.html

Cisco Unified netManager - Unified Communications

The new Cisco netManager - Unified Communications product is designed to help small and medium-sized organizations to proactively manage their unified communications by monitoring all components of the system, including the underlying IP transport infrastructure. Cisco netManager - Unified Communications helps flag potential outages in advance, thus helping reduce downtime through improved management.

Cisco netManager - Unified Communications is recommended for monitoring Cisco Unified Communications systems based on Cisco Unified Communications Manager, Cisco Unified Communications Manager Business Edition, or Cisco Unified Communications Manager Express for up to 1000 users. A single Windows-based server/workstation running Cisco netManager - Unified Communications software can monitor the entire Cisco Unified Communications system including up to 10 remote sites and up to two Cisco Unified Communications Manager clusters.

For a detailed description of Cisco netManager - Unified Communications features and functionality, see the *Release Notes for Cisco Unified netManager - Unified Communications Release 1.0* at:

http://www.cisco.com/en/US/products/ps7243/prod_release_note09186a00808019ba.html

Cisco Monitor Manager and Cisco Monitor Director

Two additional network management products—Cisco Monitor Manager and Cisco Monitor Director—were added to the Cisco Unified Communications product family for Release 6.0(1). Cisco Monitor Director is a remote network monitoring and management application that works with one or more instances of Cisco Monitor Manager to provide centralized network management across multiple small or medium-sized business customer sites. Cisco Monitor Director stores network fault data received from associated Cisco Monitor Manager instances and uses this data (which can be selectively filtered) to create monthly reports that summarize a network's health. It also provides the capability to specify that only issues of a certain severity or type generate notification messages, ensuring that network administrators are notified of critical issues.

For more information on Cisco Monitor Manager, see *Release Notes for Cisco Monitor Manager 1.1* at: http://www.cisco.com/en/US/products/ps7244/prod_release_note09186a0080805286.html

For more information on Cisco Monitor Director, see *Release Notes for Cisco Monitor Director 1.1* at: http://www.cisco.com/en/US/products/ps7246/prod_release_note09186a0080805349.html

Cisco IOS 12.4(15)T

IOS Software Release 12.4(15)T includes the following changes and updates to functionality since Release 12.4(11)T1:

- ISDN setup—The hash mark (#) within the Called Party Number can also be used as an indication of sending complete to stop digit collection. As a result, the hash mark is treated as a terminating character for the Called party Number.
- Outbound proxy support for the SIP gateway—Configures an outbound-proxy server that receives all initiating request (INVITE and SUBSCRIBE) messages and routes them to the designated destination.
- Security and QoS feature enhancements.
- Cisco IOS VoiceXML Browser updated to W3C VoiceXML 2.1
- Two key features for Cisco Communication Manager Express:
 - Extension Assigner which allows for easy deployment or replacement of phones on site using a TCL IVR Application
 - New IP Phone localizations for Asia and Eastern Europe
- Cisco Unified Communications Manager Express SIP station-side enhancements, including:
 - Music on hold
 - Dialplan-pattern
 - KPML and dial plan
 - Speed dial
 - Caller ID and status line update
 - Line status subscription providing presence with authorization and authentication
 - Busy lamp field (BLF) for speed dial and missed call lists, and phone directories button

- Provisioning for Cisco Unified IP Phone 7970G, 7971GE, 7941G/GE, 7961G/GE, and 7911G SIP IP phones
- Cisco Unified SRST SIP feature enhancements, including:
 - Caller ID update
 - Status line update
 - Dial plan-pattern
 - KPML and dial plan
 - Idle status prompt with customizable message
 - Line status subscription providing presence with authorization and authentication

For a detailed description of these and other new and enhanced features, see *Cross-Platform Release Notes for Cisco IOS Release 12.4T, Part 3: New Feature Descriptions and Important Notes* at:

http://www.cisco.com/en/US/products/ps6441/prod_release_note09186a00804a19ae.html

Cisco IOS 12.4(11)XW2/Unified Communications Manager Express 4.2

The key aspect of IOS Software Release 12.4(11)XW2 is the inclusion of Unified Communications Manager Express Release 4.2, which supports the following features:

- Media Encryption (SRTP) which supports the following secure voice call functionality:
 - Secure call control signaling and media streams in Unified Communications Manager Express networks using Secure Real-Time Transport Protocol (SRTP) and H.323 protocols.
 - Secure supplementary services for Unified Communications Manager Express networks using H.323 trunks.
 - Secure Cisco VG224 Analog Phone Gateway endpoints.
- The Media and Signaling Encryption (SRTP/TLS) on DSPFarm Conferencing feature provides secure conferencing capability for Cisco Unified Communications Manager networks. The feature provides authentication, integrity and encryption of voice media and related call control signaling to and from the digital signal processor (DSP) farm.
- Extension Mobility in Unified Communications Manager Express 4.2 provides the benefit of phone mobility for end users.
- Interoperability between Cisco Unified Communications Manager Express Release 4.2 and Cisco Customer Response Solutions (CRS) with Cisco Unified Contact Center Express Release 5.0(1), including Cisco Unified IP IVR, enhanced call processing, device and call monitoring, and unattended call transfers to multiple call center agents and basic extension mobility.

For a detailed description of these and other IOS Release 12.4(11)XW features, see *Release Notes for Cisco 3800 Series Integrated Services Routers with Cisco IOS Release 12.4(11)XW* at:

http://www.cisco.com/en/US/products/ps6706/prod_release_note09186a00808380ab.html

Cisco IOS 12.4(13b) Mainline

The majority of Cisco Unified Communications Release 6.0(1) system testing was performed using Cisco IOS Release 12.4(15)T. However, automated testing of basic call functionality and additional load testing were performed using the Cisco IOS Release 12.4(13b) Mainline. Because Cisco IOS Mainline releases do not support many of the calling features found in Cisco IOS T releases, this additional testing involved only basic call functionality between IP phones and IP phones to PSTN endpoints. For defects filed against this testing, see [IOS Mainline Testing Issues, page 37](#).

Testing was performed using the following voice/data gateways:

- Cisco 2600 Series Multiservice Platforms: Cisco 2620 (H.323)
- Cisco 2800 Series Integrated Services Routers: Cisco 2811, Cisco 2821 (H.323), and Cisco 2851
- Cisco 3700 Series Multiservice Access Routers: Cisco 3725 (H.323) and Cisco 3745 (MGCP)
- Cisco 3800 Series Integrated Services Routers: Cisco 3825 and Cisco 3845 (H.323 and MGCP)
- Cisco Catalyst Switch Communications Media Module (CMM)
- Cisco VG224 Voice Gateway

To compare the differences in features and functionality between 12.4(15)T and 12.4(13b), you can use Feature Navigator, a web-based tool. To access Feature Navigator, you must have an account on Cisco.com. If you have forgotten or lost your account information, e-mail the Contact Database Administration group at cdbadmin@cisco.com. If you want to establish an account on Cisco.com, go to <http://www.cisco.com/register> and follow the directions.

You can access Feature Navigator at the following URL:

<http://www.cisco.com/go/fn>

Click **Compare Images** and enter the following values in the popup window:

- Software—IOS (in both fields)
- Major Release—12.4 in the first field, 12.4T in the second field
- Release Number—12.4(13b) in the first field, 12.4(15)T in the second field
- Platform—Same device in both fields
- Feature Set—IP Voice (in both fields)

Secure Conferencing

The Secure Conferencing feature provides authentication and encryption to secure a conference. A conference is secure when all participating devices have encrypted signaling and media. The secure conference feature supports SRTP encryption over a secure TLS or IPSec connection.

The system provides a security icon for the overall security status of the conference, which is determined by the lowest security level of the participating devices. For example, a secure conference that includes two encrypted connections and one authenticated connection has a conference security status of authenticated.

Conference status can change as participants enter and leave the conference. An encrypted conference session can revert to a security level of authenticated or nonsecure if an authenticated or nonsecure participant connects to the call. Likewise, the session status can upgrade if an authenticated or nonsecure participant drops off the call. A nonsecure participant that connects to a conference call renders the conference session nonsecure.

Cisco Unified Communications Manager supports secure conference over licensed CTI devices. Cisco Unified Communications Manager supports secure conference over intracluster trunks (ICTs), H.323 trunks/gateways, and MGCP gateways; however, encrypted phones that are running firmware release 8.2 or earlier will revert to RTP for ICT and H.323 calls, and the media is not encrypted.

For more information on secure conferencing, see *Release Notes for Cisco Unified Communications Manager Release 6.0(1)* at:

http://www.cisco.com/en/US/docs/voice_ip_comm/cucm/rel_notes/6_0_1/601cmrn.html#wp47230

System Requirements

This section provides information about the software versions of the Cisco and third-party components and the firmware versions of the Cisco Unified IP phones used in system-wide testing of Cisco Unified Communications Release 6.0(1). This section contains the following information:

- [End-of-Sale Components, page 23](#)
- [Deployment Considerations, page 24](#)
- [Software Version Matrix, page 25](#)
- [Firmware Version Matrix, page 29](#)

End-of-Sale Components

The following components have reached end-of-sale (EOS) status but are still supported, and since they may be present in existing customer deployments, remained installed in the test bed sites for this Cisco Unified Communications release:

- Cisco MCS-7825-H1
- Cisco MCS-7825I-3000
- Cisco MCS-7845H-2400
- Cisco MCS-7845H-3000
- Cisco 2611
- Cisco 2621
- Cisco 2651
- Cisco switch/router modules:
 - WS-X6624-FXS Analog Interface Module
 - NM-HDV High Density Voice Network Module
 - NM-1V/2V Low-Density Analog Interface Module
 - VIC-2FXO/2FXS Low Density Voice/Fax Network Module
- Analog Telephone Adaptor model ATA188
- Cisco VT Advantage (CVT-ADV-E1)
- Unified Videoconferencing 3526 PRI Videoconferencing Gateway
- Unified Videoconferencing Multipoint Control Unit 3511

The EOS date is the last date to order the product through Cisco point-of-sale mechanisms. The product is no longer for sale. There is also an end-of-life (EOL) cycle that is a process that guides the final business operations associated with the product life cycle.

The EOL process consists of a series of technical and business milestones and activities that, once completed, make a product obsolete. Once obsolete, the product is not sold, manufactured, improved, repaired, maintained, or supported.

For information about recommended replacements, see the comprehensive list of announcements at End-of-Life and End-of-Sale Products at the following URL:

http://www.cisco.com/en/US/products/prod_end_of_life.html

For information on specific products, choose a product from the following URL:

http://www.cisco.com/en/US/products/sw/voicesw/tsd_products_support_category_home.html. Then click on the End-of-Life and End-of-Sale Notices link in the Product Literature box.

For an overview of the Products and Services EOL policy, see the information at the following URL:

http://www.cisco.com/en/US/products/products_end-of-life_policy.html

Deployment Considerations

The tables in this section list the recommended software and firmware releases based on Cisco Unified Communications Release 6.0(1). Note that not every rebuild is tested as part of Cisco Unified Communications. Therefore, additional regression testing in a customer or Cisco-specific certification lab is recommended before deployment.

When deploying IP Communications in a customer environment, please remember the following:

- At the minimum, customers should deploy the software release recommended in these tables.
- For CSA, customers should use the latest engine and policy release. CSA software is available at: <http://www.cisco.com/cgi-bin/tablebuild.pl/csa>
- For other software components, customers should use the most current rebuild of a maintenance release. For IOS, information about the latest releases, including deferral advisories, is available at: <http://www.cisco.com/kobayashi/sw-center/sw-ios.shtml>
- If the recommended release has been deferred to a subsequent release, customers should use the subsequent release.
- Before deploying a release, examine the open caveats in the chosen release to determine if any will impact your implementation. Open caveats can be viewed through the Bug Toolkit, located at: http://www.cisco.com/cgi-bin/Support/Bugtool/launch_bugtool.pl
- In system upgrades, deploy the chosen release in a lab environment that uses the same product components as the customer's product components before moving it to a production environment.

Software Version Matrix

Table 1 lists the software release versions of both Cisco and third-party components used in the Cisco Unified Communications Release 6.0(1) system test.

Table 1 *Software Release Versions in Cisco Unified Communications Release 6.0(1) for IP Telephony*

Category	Component	Release Version
Call Control	Cisco Unified Communications Manager	6.0(1)
	Cisco Unified Communications Manager Business Edition	6.0(1)
	Cisco Unified Communications Manager Express	4.1/IOS 12.4(15)T, 4.2/IOS 12.4(11)XW2 ¹
	Cisco Unified Survivable Remote Site Telephony (SRST)	4.1/IOS 12.4(15)T
	Cisco Unified Presence	6.0(1)
	Cisco Unified Business Attendant Console and Unified Department Attendant Console	6.0
	Cisco Unified Communications 500 Series for Small Business	IOS 12.4(11)XW2
Contact Center	Cisco Customer Response Solutions (Cisco Unified Contact Center Express)	5.0(1)SR1 ¹
	Cisco Customer Response Solutions—Operating System	OS 2003.1.1SR4
Applications	Cisco Emergency Responder	2.0(1)
	Cisco Fax Server	9.0
	Cisco Unified Application Environment	2.4
	Cisco Unified PhoneProxy	1.0(2)

Table 1 **Software Release Versions in Cisco Unified Communications Release 6.0(1) for IP Telephony (continued)**

Category	Component	Release Version
Conferencing	Cisco Unified MeetingPlace—Operating System	OS 2003.1.1SR4
	Cisco Unified MeetingPlace Audio Server	6.0.0.25
	Cisco Unified MeetingPlace IP Gateway	5.3.1.8
	Cisco Unified MeetingPlace Web Conferencing	6.0.171.0
	Cisco Unified MeetingPlace Video Integration	5.4.107.0
	Cisco Unified MeetingPlace Video Administration Server	5.4.0.105
	Cisco Unified MeetingPlace for Outlook	6.0.14.0
	Cisco Unified MeetingPlace MeetingTime	6.0.0.23
	Cisco Unified MeetingPlace Jabber Integration	6.0.102.0
	Cisco Unified MeetingPlace Directory Services	5.4.104
	Cisco Unified MeetingPlace Express	2.0(1)
	Cisco Unified Conferencing for TelePresence	1.1
	Cisco Unified Videoconferencing 3515 MCU ²	5.1.0.0.24
	Cisco Unified Videoconferencing 3540 MCU	4.2.10
	Cisco Unified Videoconferencing Enhanced Media Processor (EMP) Module for 3540 MCU	4.2.8
	Cisco Unified Videoconferencing 3545 MCU	5.1.0.0.24
	Cisco Unified Videoconferencing Enhanced Media Processor (EMP) Module for 3545 MCU	5.1.0.0.27
	Cisco Unified Videoconferencing 3521, 3522 BRI Gateways ²	5.0.0.0.22
	Cisco Unified Videoconferencing 3526, 3527, and 3545 PRI Gateways ²	5.0.0.0.22
Cisco Unified Videoconferencing 3540 PRI Gateway ²	5.0.0.0.17	
Voice Mail and Unified Messaging	Cisco Unity, Unity-CM TSP	5.0, 8.1(3)
	Cisco Unity—Microsoft Exchange	Microsoft Exchange 2003 SP2 (on Cisco Unity and partner Exchange servers) and Microsoft Exchange 2000SP3 or Exchange 2003SP2 (on other message store servers)
	Cisco Unity—IBM Lotus Domino ²	7.0 with DUC 1.2.3
	Cisco Unity Connection	2.0(1)
	Cisco Unity Express	3.0(1)

Table 1 Software Release Versions in Cisco Unified Communications Release 6.0(1) for IP Telephony (continued)

Category	Component	Release Version
Endpoints and Clients	Cisco Unified IP Phones models 7902G, 7905G, 7906G, 7911G, 7912G, 7920, 7921G, 7931, 7935, 7936, 7940G, 7941G, 7942G, 7945G, 7960G, 7961G, 7962G, 7965G, 7970G, 7971G, 7975G, 7985G	Bundled with Unified Communications Manager See Firmware Version Matrix , page 29
	Cisco IP Communicator	2.1
	Cisco Unified Personal Communicator	1.2(1)
	Cisco Unified Video Advantage	2.0(2)
Wireless and Mobility	Cisco Aironet Access Point (AP) 1200G	12.3(8)JA
	Cisco Unified Mobility Advantage	3.0
	Cisco Unified Mobile Communicator	3.0
Security	Cisco ASA 5540 Adaptive Security Appliance	8.0(2)
	Cisco Catalyst 6500 Series Firewall Services Module (FWSM)	3.1(5)
	Cisco Catalyst 6500 Series Intrusion Detection System (IDSM-2) Module	6.0(1)E1
	Cisco Intrusion Prevention System Appliance IPS-4200	6.0(1)E1
	Cisco NAC Appliance (Clean Access)	4.1.0.2
	Management Center for Cisco Security Agents	5.0.0.216
	Cisco Security Agent for Cisco Customer Response Solutions	5.0.0.216-3.0.4
	Cisco Security Agent for Cisco Unity	4.5.1.639-2.0.3
	Cisco Security Agent for Unified MeetingPlace	5.0.0.205-6.0.7
	Cisco Security Agent for Unified Communications Manager	Bundled with Unified Communications Manager
	Cisco Security Agent for Cisco Emergency Responder	Bundled with Cisco Emergency Responder
Network Management	Cisco Unified Operations Manager	2.0.1
	Cisco Unified Service Monitor	2.0.1
	Cisco netManager - Unified Communications	1.0
	Cisco Unified Service Statistics Manager	1.0
	Cisco Unified Provisioning Manager	1.1
	Cisco Monitor Manager	1.1
	Cisco Monitor Director	1.1
	Cisco Resource Management Essentials (RME)	4.0.5

Table 1 Software Release Versions in Cisco Unified Communications Release 6.0(1) for IP Telephony (continued)

Category	Component	Release Version
Communications Infrastructure	Cisco 1760 (voice/data gateway) ²	12.4(15)T
	Cisco 2610XM, 2611XM, 2620XM ³ , 2621XM, 2650XM, 2651XM (router)	12.4(15)T1
	Cisco 2691 (router)	12.4(15)T
	Cisco 2801, 2821 ³ , 2851 ³ , 3825 ³ , 3845 ³ (router, voice/data gateway)	12.4(15)T
	Cisco 3745 (gatekeeper)	12.4(15)T
	Cisco 3745 (IP-to-IP gateway) ²	12.4(15)T
	Cisco 3725 ³ , 3745 ³ (voice/data gateway)	12.4(15)T
	Cisco 3725, 3745, 3825 (SRTP and Secure SRST gateways)	12.4(15)T
	Cisco 7206 ³ (voice/data gateway)	12.4(15)T
	Cisco Catalyst 3500 XL Series (access switch)	12.0(5)WC17
	Cisco Catalyst 3550 (access switch)	12.2(25)SEE3
	Cisco Catalyst 3560 (access switch)	12.2(25)SEE3
	Cisco Catalyst 3750 (data center switch)	12.2(25)SEE3
	Cisco Catalyst 4503 (access switch)	12.2(25)EWA8
	Cisco Catalyst 4506 (access switch)	12.2(25)EWA8
	Cisco Catalyst 6506, 6509 (voice access switch, Supervisor Engine 2/MSFC2)	CatOS 8.5(8) / 12.2(18)SXF8
	Cisco Catalyst 6506, 6509 (core switch, Supervisor Engine 720)	12.2(18)SXF8 (native-mode)
	Cisco Catalyst Communications Media Module (CMM) ³	12.4(15)T
	Cisco Catalyst 6608, 6624 (voice gateway)	Bundled with Unified Communications Manager See Firmware Version Matrix, page 29
	Cisco VG224 (analog voice gateway) ³	12.4(15)T
Cisco VG248 (analog voice gateway)	1.3(2)	
Cisco ATA 186,188 (analog telephony adaptor)	Bundled with Unified Communications Manager See Firmware Version Matrix, page 29	
Third Party	McAfee Antivirus ⁴	Enterprise 8.0.0 Patch Version: 11

1. Unified Communications Manager Express Release 4.2 and Cisco IOS Release 12.4(11)XW2 are required for interoperability with Unified Contact Center Express Release 5.0(1).
2. Tested in EUEM site models only during Cisco Unified Communications Release 6.0(1) system testing.
3. Additional basic PSTN functionality and load testing was performed using IOS Mainline Release 12.4(13b) on this device; see [Cisco IOS 12.4\(13b\) Mainline, page 22](#) for more information.

4. You can install third-party antivirus agents on Windows-based servers such as Cisco Customer Response Solutions (Unified Contact Center Express) and Unified Operations Manager, but not on non-Windows appliances such as Unified Communications Manager and Unified Communications Manager Business Edition.

Firmware Version Matrix

Table 2 lists the firmware versions of the Cisco Unified IP Phones, analog adaptors, voice gateways and conference bridges used in the Cisco Unified Communications Release 6.0(1) system test.

Table 2 *Firmware Versions for Cisco Devices in Cisco Unified Communications Release 6.0(1) for IP Telephony*

Component	SCCP Firmware Version	SIP Firmware Version
Cisco Unified IP Phone 7902G ¹	CP7902080002SCCP060817A	—
Cisco Unified IP Phone 7905G ²	CP7905080003SCCP070409A	CP7905080001SIP060412A
Cisco Unified IP Phone 7906G	SCCP11.8-3-1S	SIP11.8-3-1S
Cisco Unified IP Phone 7911G ²	SCCP11.8-3-1S	SIP11.8-3-1S
Cisco Unified IP Phone 7912G ²	CP7912080003SCCP070409A	CP7912080001SIP060412A
Cisco Unified IP Phone 7920 ²	CMTERM_7920.4.0-03-00	—
Cisco Unified IP Phone 7921G ²	CP7921G-1.0.3	—
Cisco Unified IP Phone 7931G ²	SCCP31.8-3-1S	—
Cisco Unified IP Phone 7935 ²	P00503021600	—
Cisco Unified IP Phone 7936 ²	CMTERM_7936.3-3-13-0	—
Cisco Unified IP Phone 7940G	P00308000500	POS3-08-6-02
Cisco Unified IP Phone 7941G-GE ³	SCCP41.8-3-1S	SIP41.8-3-1S
Cisco Unified IP Phone 7960G	P00308000500	POS3-08-6-02
Cisco Unified IP Phone 7942G	SCCP42.8-3-1S	SIP42.8-3-1S
Cisco Unified IP Phone 7945G	SCCP45.8-3-1S	SIP45.8-3-1S
Cisco Unified IP Phone 7961G-GE	SCCP41.8-3-1S	SIP41.8-3-1S
Cisco Unified IP Phone 7962G	SCCP42.8-3-1S	SIP42.8-3-1S
Cisco Unified IP Phone 7965G	SCCP45.8-3-1S	SIP45.8-3-1S
Cisco Unified IP Phone 7970G	SCCP70.8-3-1S	SIP70.8-3-1S
Cisco Unified IP Phone 7971G-GE	SCCP70.8-3-1S	SIP70.8-3-1S
Cisco Unified IP Phone 7975G	SCCP75.8-3-1S	SIP75.8-3-1S
Cisco Unified IP Phone 7985G	CMTERM_7985.4-1-4-0	—
Cisco ATA 186, 188 (analog telephony adaptor) ²	ATA030203SCCP051201A	—
Cisco Catalyst 6608 (voice gateway) ²	D00404000028 ⁴	
Cisco Conference Bridge WS-X6608 ²	C00104000001 ⁴	

1. Phone model tested in EUEM site models only during Cisco Unified Communications Release 6.0(1) system testing.
2. Device not tested for SRST failover during Cisco Unified Communications Release 6.0(1) system testing.
3. SRST failover tested on phone model with SIP firmware load installed only, not with SCCP firmware load.

- Only endpoints such as IP phones and analog telephone adaptors have separate firmware loads to support SCCP or SIP protocols; gateways and conference bridges do not.

Related Documentation

Table 3 provides links to the main page for documentation on various Cisco Unified Communications components, from which you can navigate to individual documents.

Table 3 *Related Documentation URLs*

Category	Component	Documentation URL
General	Cisco Unified Communications	http://www.cisco.com/go/unified-techinfo
	Voice documentation	http://www.cisco.com/en/US/products/sw/voicew/tsd_products_support_category_home.html
Call Control	Cisco Unified Communications Manager	http://www.cisco.com/en/US/products/sw/voicew/ps556/tsd_products_support_series_home.html
	Cisco Unified Communications Manager Business Edition	http://www.cisco.com/en/US/products/ps7273/tsd_products_support_series_home.html
	Cisco Unified Communications Manager Express	http://www.cisco.com/en/US/products/sw/voicew/ps4625/tsd_products_support_series_home.html
	Cisco Unified Survivable Remote Site Telephony (SRST)	http://www.cisco.com/en/US/products/sw/voicew/ps2169/tsd_products_support_series_home.html
	Cisco Unified Presence	http://www.cisco.com/en/US/products/ps6837/tsd_products_support_series_home.html
	Cisco Unified Communications 500 Series for Small Business	http://www.cisco.com/en/US/products/ps7293/tsd_products_support_series_home.html
Contact Center	Cisco Customer Response Solutions (Cisco Unified Contact Center Express)	http://www.cisco.com/en/US/products/sw/custcosw/ps1846/tsd_products_support_series_home.html
Applications	Cisco Emergency Responder	http://www.cisco.com/en/US/products/sw/voicew/ps842/tsd_products_support_series_home.html
	Cisco Fax Server	http://www.cisco.com/en/US/products/ps6178/tsd_products_support_series_home.html
	Cisco Unified Application Environment	http://www.cisco.com/en/US/products/ps7058/tsd_products_support_series_home.html
	Cisco Unified PhoneProxy	http://www.cisco.com/en/US/products/ps7057/tsd_products_support_series_home.html
Conferencing	Cisco Unified MeetingPlace	http://www.cisco.com/en/US/products/sw/ps5664/ps5669/tsd_products_support_series_home.html
	Cisco Unified MeetingPlace Express	http://www.cisco.com/en/US/products/ps6533/tsd_products_support_series_home.html
	Cisco Unified Conferencing for TelePresence	http://www.cisco.com/en/US/products/ps7266/tsd_products_support_series_home.html
	Cisco Unified Videoconferencing	http://www.cisco.com/en/US/products/hw/video/ps1870/tsd_products_support_series_home.html

Table 3 *Related Documentation URLs (continued)*

Category	Component	Documentation URL
Voice Mail and Unified Messaging	Cisco Unity	http://www.cisco.com/en/US/products/sw/voicesw/ps2237/tsd_products_support_series_home.html
	Cisco Unity Connection	http://www.cisco.com/en/US/products/ps6509/tsd_products_support_series_home.html
	Cisco Unity Express	http://www.cisco.com/en/US/products/sw/voicesw/ps5520/tsd_products_support_series_home.html
Endpoints and Clients	Cisco Unified IP Phone 7900 Series	http://www.cisco.com/en/US/products/hw/phones/ps379/tsd_products_support_series_home.html
	Cisco IP Communicator	http://www.cisco.com/en/US/products/sw/voicesw/ps5475/tsd_products_support_series_home.html
	Cisco Unified Personal Communicator	http://www.cisco.com/en/US/products/ps6844/tsd_products_support_series_home.html
	Cisco Unified Video Advantage	http://www.cisco.com/en/US/products/sw/voicesw/ps5662/tsd_products_support_series_home.html
Wireless and Mobility	Cisco Aironet 1200 Series Access Points	http://www.cisco.com/en/US/products/hw/wireless/ps430/tsd_products_support_series_home.html
	Cisco Unified Mobility Advantage	http://www.cisco.com/en/US/products/ps7270/tsd_products_support_series_home.html
	Cisco Unified Mobile Communicator	http://www.cisco.com/en/US/products/ps7271/tsd_products_support_series_home.html
Security	Cisco ASA 5500 Series Adaptive Security Appliances	http://www.cisco.com/en/US/products/ps6120/tsd_products_support_series_home.html
	Cisco Catalyst 6500 Series Firewall Services Module (FWSM)	http://www.cisco.com/en/US/products/hw/modules/ps2706/ps4452/tsd_products_support_model_home.html
	Cisco Catalyst 6500 Series Intrusion Detection System (IDS-2) Module	http://www.cisco.com/en/US/products/hw/modules/ps2706/ps5058/tsd_products_support_model_home.html
	Cisco Intrusion Prevention System Appliance IPS-4200	http://www.cisco.com/en/US/products/sw/secursw/ps2113/tsd_products_support_series_home.html
	Cisco NAC Appliance (Clean Access)	http://www.cisco.com/en/US/products/ps6128/tsd_products_support_series_home.html
	Management Center for Cisco Security Agents	http://www.cisco.com/en/US/products/sw/secursw/ps5057/products_installation_and_configuration_guides_list.html
	Cisco Security Agents	http://www.cisco.com/en/US/products/sw/secursw/ps5057/tsd_products_support_series_home.html

Table 3 *Related Documentation URLs (continued)*

Category	Component	Documentation URL
Network Management	Cisco Unified Operations Manager	http://www.cisco.com/en/US/products/ps6535/tsd_products_support_series_home.html
	Cisco Unified Service Monitor	http://www.cisco.com/en/US/products/ps6536/tsd_products_support_series_home.html
	Cisco netManager - Unified Communications	http://www.cisco.com/en/US/products/ps7243/tsd_products_support_series_home.html
	Cisco Unified Service Statistics Manager	http://www.cisco.com/en/US/products/ps7285/tsd_products_support_series_home.html
	Cisco Unified Provisioning Manager	http://www.cisco.com/en/US/products/ps7125/tsd_products_support_series_home.html
	Cisco Monitor Manager	http://www.cisco.com/en/US/products/ps7244/tsd_products_support_series_home.html
	Cisco Monitor Director	http://www.cisco.com/en/US/products/ps7246/tsd_products_support_series_home.html
	Cisco Resource Management Essentials (RME)	http://www.cisco.com/en/US/products/sw/cscowork/p_s2073/tsd_products_support_series_home.html

Table 3 *Related Documentation URLs (continued)*

Category	Component	Documentation URL
Communications Infrastructure	Cisco IOS Software Release 12.4 T	http://www.cisco.com/en/US/products/ps6441/tsd_products_support_series_home.html
	Cisco 1700 Series Modular Access Routers	http://www.cisco.com/en/US/products/hw/routers/ps221/tsd_products_support_series_home.html
	Cisco 2600 Series Routers	http://www.cisco.com/en/US/products/hw/routers/ps259/tsd_products_support_series_home.html
	Cisco 2800 Series Routers/Voice Gateways	http://www.cisco.com/en/US/products/ps5854/tsd_products_support_series_home.html
	Cisco 3700 Series Voice Gateways/Gatekeepers	http://www.cisco.com/en/US/products/hw/routers/ps282/tsd_products_support_series_home.html
	Cisco 3800 Series Routers/Voice Gateways	http://www.cisco.com/en/US/products/ps5855/tsd_products_support_series_home.html
	Cisco 7200 Series Voice Gateways	http://www.cisco.com/en/US/products/hw/routers/ps341/tsd_products_support_series_home.html
	Cisco IP-to-IP Gateways	http://www.cisco.com/en/US/products/sw/voicesw/ps5640/tsd_products_support_series_home.html
	Cisco Catalyst 3550 Series Access Switches	http://www.cisco.com/en/US/products/hw/switches/ps646/tsd_products_support_series_home.html
	Cisco Catalyst 3560 Series Access Switches	http://www.cisco.com/en/US/products/hw/switches/ps5528/tsd_products_support_series_home.html
	Cisco Catalyst 3750 Series Data Center Switches	http://www.cisco.com/en/US/products/hw/switches/ps5023/tsd_products_support_series_home.html
	Cisco Catalyst 4500 Series Access Switches	http://www.cisco.com/en/US/products/hw/switches/ps4324/tsd_products_support_series_home.html
	Cisco Catalyst 6500 Series Switches	http://www.cisco.com/en/US/products/hw/switches/ps708/tsd_products_support_series_home.html
	Cisco Catalyst 6600 Series Voice Gateways	http://www.cisco.com/en/US/products/hw/switches/ps700/tsd_products_support_eol_series_home.html
	Cisco VG224/248 Analog Voice Gateways	http://www.cisco.com/en/US/products/hw/gatecont/ps2250/tsd_products_support_series_home.html
Cisco ATA 186,188 (analog telephony adaptor)	http://www.cisco.com/en/US/products/hw/gatecont/ps514/tsd_products_support_series_home.html	

Install and Upgrade Notes

The components in these release notes, including the platforms tested, are discussed in the Technical Information site at:

http://www.cisco.com/iam/unified/ipt601/Install_and_Configure_System_Components.htm

See this content for the specific versions of the components tested and links to relevant documentation for installation and configuration procedures.

Upgrade information for components that have been tested and verified during system testing is provided in the *System Installation and Upgrade Manual for IP Telephony* at:

<http://www.cisco.com/univercd/cc/td/doc/systems/unified/uc601/siumipt/suimt601.pdf>

For additional information on specific hardware recommendations or bills of material for each product, see [System Requirements, page 23](#).

Latest Software Upgrades and Licenses

The following are links to the latest software upgrades and licenses for Cisco Unified Communications Release 6.0(1) components:

- Go to <http://www.cisco.com/kobayashi/sw-center/sw-voice.shtml> to download the software for the following products:
 - Cisco Unified Communications Manager
 - Cisco Unified Communications Manager Express
 - Cisco Unified Survivable Remote Site Telephony (SRST)
 - Cisco Unified Presence
 - Cisco Unified Communications 500 Series for Small Business
 - Cisco Customer Response Solutions (Unified Contact Center Express)
 - Cisco Emergency Responder
 - Cisco Unified Application Environment
 - Cisco Unified PhoneProxy
 - Unified MeetingPlace
 - Unified MeetingPlace Express
 - Cisco Unity
 - Cisco Unity Connection
 - Cisco Unity Express
 - Voice/video endpoints such as Unified IP Phones, Analog Telephone Adaptors (ATAs), Cisco IP Communicator, Unified Personal Communicator and Unified Video Advantage
- Cisco IOS routers and gateways: <http://www.cisco.com/kobayashi/sw-center/sw-ios.shtml>
- Catalyst switches: <http://tools.cisco.com/support/downloads/go/MDFTree.x?butype=switches>
- Wireless products: <http://www.cisco.com/kobayashi/sw-center/sw-wireless.shtml>
- Firewalls and security modules: <http://www.cisco.com/kobayashi/sw-center/sw-ciscosecure.shtml>

- Network management software:
<http://www.cisco.com/kobayashi/sw-center/cw2000/lan-planner.shtml>
- Cisco Unity Connection License Files:
http://www.cisco.com/en/US/products/ps6509/products_installation_guide_chapter09186a008055e1f6.html#wp1041859
- Product Upgrade Tool (for ordering CD's of new major/minor releases):
<http://tools.cisco.com/gct/Upgrade/jsp/index.jsp>

Limitations and Restrictions

This section includes the following topics:

- [Important Notes](#), page 35
- [Resolved Caveats](#), page 38
- [Open Caveats](#), page 38

If you are a Cisco partner or a registered Cisco.com user with a Cisco service contract, you can use the Bug Toolkit to find caveats of any severity for any release. To access the Bug Toolkit, go to this URL: http://www.cisco.com/cgi-bin/Support/Bugtool/launch_bugtool.pl.

Important Notes

This section includes important notes related to the testing of Cisco Unified Communications System Release 6.0(1) for IP telephony and includes the following issues:

- [Deleting an Active Unified Communications Manager Server](#), page 35
- [Maximum Unified Communications Manager Trace Settings](#), page 36
- [Changing the IP Address for a Unified Communications Manager Server](#), page 36
- [ASA Firewall Performance](#), page 37
- [Bidirectional NAT on FWSM Not Supported for VoIP Calls](#), page 37
- [Configuring and Registering SCCP Unified IP Phones Affects Virtual Memory](#), page 37
- [Cisco Unified MeetingPlace Express Roster List Displays Incorrectly](#), page 37
- [IOS Mainline Testing Issues](#), page 37

Deleting an Active Unified Communications Manager Server

In Cisco Unified Communications Manager Administration, you cannot delete the first node of a Cisco Unified Communications Manager cluster, but you can delete subsequent nodes. Before you delete a subsequent node in the Find and List Servers window, Cisco Unified Communications Manager Administration displays the following message: “You are about to permanently delete one or more servers. This action cannot be undone. Continue?”. If you click OK, the server gets deleted from the Cisco Unified Communications Manager database and is not available for use.

Deleting an active Unified Communications Manager server may have serious ramifications. The section, “Deleting a Server,” in the System-Level Configuration Settings chapter in the *Cisco Unified Communications Manager System Guide* does not adequately address these ramifications. Instead, consider the following information when you delete a server:

- Cisco Unified Communications Manager Administration does not allow you to delete the first node in the cluster, but you can delete any subsequent node.
- Cisco recommends that you do not delete any node that has Cisco Unified Communications Manager running on it, especially if the node has devices, such as phones, registered with it.
- Although dependency records exist for the subsequent nodes, the records do not prevent you from deleting the node.
- If any call park numbers are configured for Cisco Unified Communications Manager on the node that is being deleted, the deletion fails. Before you can delete the node, you must delete the call park numbers in Cisco Unified Communications Manager Administration.
- The system may automatically delete some devices, such as MOH servers, when you delete a server.
- Before you delete a node, Cisco recommends that you deactivate the services that are active on the subsequent node. Performing this task ensures that the services work after you delete the node.
- If you mistakenly delete a server and later decide to add it back, perform the steps described in “Deleting Then Adding Back a Server in Cisco Unified Communications Manager Administration” section in the *Release Notes for Cisco Unified Communications Manager Release 6.0(1)* available at:
http://www.cisco.com/en/US/docs/voice_ip_comm/cucm/rel_notes/6_0_1/601cmrn.html

Maximum Unified Communications Manager Trace Settings

The maximum recommended trace setting for Cisco Unified Communications Manager is 2,500 files of 2 MB each for System Diagnostic Interface (SDI) and Signal Distribution Layer (SDL) traces, for a combined total of 5,000 files. Trace settings for all other components must be configured within the limit of 126 MB (for example, 63 files of 2 MB each). Increasing traces past the recommended limits can result in decreased system performance due to IOWait issues. Once the system is experiencing IOWait issues that cause performance degradation, trace collection must be reduced and all existing traces must be removed from the system.



Note

SDI traces can be increased to 5,000 files if SDL traces are disabled, but SDL traces cannot be increased if SDI traces are disabled.

Changing the IP Address for a Unified Communications Manager Server

For step-by-step instructions on changing the IP address of a Unified Communications Manager server running Release 6.0(1) or an earlier release, see the *Changing the IP Address for Cisco Unified CallManager/Unified Communications Manager* Troubleshooting TechNote available at:

http://www.cisco.com/en/US/products/sw/voicesw/ps556/products_tech_note09186a0080094601.shtml

ASA Firewall Performance

During a sudden or prolonged burst of certain traffic, a Cisco ASA 5500 Series Adaptive Security Appliance may log error messages indicating no interface buffers available and exhibit lower performance, despite reporting CPU utilization of only 90%. Because the CPU utilization is an average calculation, it does not reflect the heavy load burst that caused the condition.

Bidirectional NAT on FWSM Not Supported for VoIP Calls

On a Cisco Catalyst 6500 Series Switch Firewall Services Module (FWSM), you can configure the **inspect ctique** command to enable CTIQBE protocol inspection which supports which supports Network Address Translation (NAT) and Port Address Translation (PAT). However, Firewall Services Modules running Release 3.1(5) do not support bidirectional NAT for VoIP calls.

Configuring and Registering SCCP Unified IP Phones Affects Virtual Memory

Configuring and registering non-secure SCCP Unified IP Phones increases the size of the virtual memory of a Unified Communications Manager subsequent node, which is not part of the phone device pool where the phones are configured and registered.

Cisco Unified MeetingPlace Express Roster List Displays Incorrectly

When a participant joins a Cisco Unified MeetingPlace Express meeting using the PhoneView feature, the meeting Roster List is displayed in the Service pane of the participant's phone. However, the Roster List is not automatically dismissed from the phone's Service pane when the participant leaves the meeting.

To remove the Roster List from appearing in the Service pane, after leaving a meeting the participant can press the Services key on his or her Unified IP Phone.

IOS Mainline Testing Issues

The following defect was discovered during the limited basic call functionality and load testing using Cisco IOS Release 12.4(13b) Mainline and is still an issue in that release.

Gateway Randomly Generates a TCP Port Already in Use for a New Call

Symptom:

H.323 calls on gateways intermittently disconnect. For each new call, the H.323 gateway generates a TCP port to be used for call setup. Intermittently, the gateway generates a TCP port that is already used for an established connection. When the gateway initiates the three-way handshake for the new call, it receives a response with an unexpected ACK sequence number. The gateway then sends a TCP RST causing the currently established TCP connection/call to be torn down.

Conditions:

This problem has been seen in both Cisco IOS Release 12.4(13a) and Release 12.4(13b).

Workaround:

None.

Resolved Caveats

This section lists caveats, grouped by severity, that are resolved now but are *not* included in the recommended component versions of Cisco Unified Communications System Release 6.0(1) for IP telephony.



Note

For information on the caveats that were resolved in specific versions of each component, refer to the appropriate release notes for each component.

To determine the software version that includes the fix, click on the linked caveat number in the Identifier column in [Table 4](#) to access the Bug Toolkit.

Table 4 *Resolved Caveats Not Included in Cisco Unified Communications Release 6.0(1)*

Identifier	Headline
CSCsf26578	Cisco Unified Video Advantage endpoint does not display remote video when calling into conference provided by Release 5.0 Unified Videoconferencing MCU
CSCsg96469	Unified Operations Manager fails to properly alert on Unified CallManager related service outage
CSCsi25936	Conference List softkey does not show all participants on a TNP phone
CSCsi41499	AXL database performance significantly degraded on Cisco Unified Communications Manager 6.0(1)
CSCsi26455	Unified MeetingPlace Express meeting participant name displays as guest in the roster
CSCsi92369	Unified Communications Manager Cisco Security Agent logs are duplicated in messages file and csalog file
CSCsj27803	Unified Communications Manager Platform CLI command file view system-management-log does not work on MCS 78xx-H2 or MCS 78xx-H3 servers

Open Caveats

This section lists known caveats, grouped by severity, related to the testing of IP telephony components in Cisco Unified Communications Release 6.0(1) and previous releases, which were not resolved at the time this document was written.

For additional information on each defect, click on the linked caveat number in the Identifier column in [Table 5](#) to access the Bug Toolkit.

Table 5 *Open Caveats in Cisco Unified Communications Release 6.0(1)*

Identifier	Headline
Severity 1-3 Caveats	
CSCsb27177	Annotations and chat frozen temporarily
CSCsb46040	Unified MeetingPlace IP gateway has a possible 1 MB memory leak
CSCsd05236	Cisco Unity Domino: Message Store Configuration Wizard (MSCW) does not verify service account creation properly
CSCsd29723	UserID search cannot find first user when scheduling a meeting via Unified MeetingPlaceWeb
CSCse58807	CPU is not protected by current ARP throttling code

Table 5 *Open Caveats in Cisco Unified Communications Release 6.0(1) (continued)*

Identifier	Headline
CSCse72363	Tomcat log in Unified Communications Manager should not use syslog daemon
CSCse95242	Unified Videoconferencing Multipoint Control Unit (MCU) with four Enhanced Media Processor (EMP) modules cannot create a service prefix that shows the maximum 96 ports available
CSCsf07135	Adaptive Security Device Manager (ASDM) connection may cause packet loss
CSCsf97250	Quality of video RTP feed deteriorates with RTSP inspection by Firewall Services Module (FWSM)
CSCsg07605	Cisco Unified CallManager Disaster Recovery System (DRS) backup puts Cisco Unified CallManager database in read-only mode
CSCsg13979	Inside ACL and Same-Security settings on Adaptive Security Appliance (ASA) allows SIP/SCCP signaling but no audio
CSCsg33442	Drives not detected correctly on MCS 7845-H1 platform
CSCsg56910	Unified Videoconferencing SCCP conference bridge runs out of resources after failover
CSCsg65683	High CPU usage due to voice conferencing on Cisco 2600XM used as SIP gateway
CSCsg98070	Cisco Unified CallManager service parameter Asynchronous SDL Logging Enabled must be left at default disabled setting
CSCsh06553	Extension Mobility auto-logout occurs after Extension Mobility login to another phone fails many times
CSCsh31645	Unified CallManager 5.x/Unified Communications Manager 6.x database replication error - table mismatch directly after synchronization
CSCsh68238	Unified Communications Manager Answer File Generator tool creates incorrect platformConfig.xml file
CSCsh75260	NP-PCcmplx logger frame timeout on Firewall Services Module (FWSM) during SIP traffic
CSCsh76059	Disaster Recovery System does not back up or restore remote SSH keys used for Trace and Log Central Scheduled Trace collection or Call Detail Records (CDRs)
CSCsi40221	Unified Operations Manager generates false BackupActivated alerts for gateways
CSCsi51814	RISDC Perfmon data CSV files rotate too fast during Unified Communications Manager upgrades
CSCsi56067	Adaptive Security Appliance (ASA) Unicorn Admin Thread process consumes CPU when new Adaptive Security Device Manager (ASDM) connection launched
CSCsi57171	Adaptive Security Appliance (ASA) Dispatch Unit process consumes CPU when new Adaptive Security Device Manager (ASDM) connection launched
CSCsi67798	Peer-to-Peer Image Distribution (PPID) Unified IP Phone 7961G failed upgrade due to Authentication *** FAILED ** code 88 error
CSCsi70101	Some Unified Communications Manager platform agents cannot be started/stopped using CLI or GUI
CSCsi70718	Cisco IP Communicator SCCP client not registered in SRST mode
CSCsi77044	Unified Communications Manager Change Notification Requests for cluster TFTP service stuck in memory
CSCsi75567	Unified Communications Manager MCS 7825-H2-IPC1 server randomly rebooting for no apparent reason
CSCsi82549	Setting JTAPI trace levels using the JTAPI Preferences tool does not start tracing
CSCsi88504	Unified Communications Manager Platform CLI can not restart tomcat process under certain conditions
CSCsi89279	Unified Communications Manager Call Forward All (CFA) activation takes more than 4 seconds to propagate
CSCsj14607	Unified Operations Manager cannot discover Unified Communications Manager cluster if AXL service is not enabled on Unified Communications Manager

Table 5 *Open Caveats in Cisco Unified Communications Release 6.0(1) (continued)*

Identifier	Headline
CSCsj20653	Large number of phone unregistrations leads to critical alarms being dropped
CSCsj24114	Voice/fax calls fail when mgcp fax t38 inhibit command is configured
CSCsj27101	Unified Communications Manager Ethernet interface (eth0) stops functioning and logs NETDEV WATCHDOG error
CSCsj30978	Unified Presence should suppress duplicate 200 OK SIP messages
CSCsj34597	Unified Presence on MCS 7825-H2 spontaneously reboots and hangs
CSCsj37446	Unified Communications Manager upgrade halts due to database utility process
CSCsj54212	Unified Communications Manager SIP timeout not compatible with default firewall setting
Severity 4-6 Caveats	
CSCdv21481	Unified CallManager TFTP issues in large scale Cisco Unified IP Phones 7900 Series deployments
CSCCea82559	Unified CallManager in call throttling mode still accepts incoming calls
CSCsb92419	Cisco Unified CallManager does not support static codec G.726r32 on a SIP trunk
CSCsb96065	BAT.xlt Device and Line fields should match the Cisco Unified CallManager phone fields
CSCsb96526	Job Configuration Page does not automatically update
CSCsc12008	Real-Time Monitoring Tool Graphs do not have the capability to highlight nodes and counters
CSCsc30731	Multicast Music-On-Hold not supported by SIP gateway
CSCsc67031	Migration of Cisco Unified IP 7960 Phones from SCCP to SIP requires phone power cycle
CSCsc82982	Default number of ports do not override maximum number of ports for Reservationless meeting
CSCsc97966	Unified MeetingPlace Express will not register to a specific zone in gatekeeper
CSCsc99954	Cisco Emergency Responder does not display phone protocol information under Phone Type
CSCsd27125	Support SIP video pass through with audio transcoder
CSCsd33512	No email notification when disconnecting standby Cisco Emergency Responder from network
CSCsd35417	Stopping meeting room music when using Cisco Unified MeetingPlace Express with SIP Integration to Cisco Unified CallManager
CSCsd43480	No hold tone returned to SIP phone across QSIG inter-cluster trunk when call is put on hold
CSCsd56104	Resetting CFwdALL on Cisco Unified IP Phones does not produce correct tone
CSCsd62658	Certificate Authority Proxy Function (CAPF) logging requires service restart
CSCsd64029	Bulk Administration Tool (BAT) should support more than 12,000 records per transaction
CSCse06753	No protection for limiting number of active nailed up callers
CSCse26225	Large scale phone unregistrations leads to Unified CallManager Code Yellow entry
CSCse65206	Remote access account required to test netdump server and download kernel panic logs
CSCsf04535	Unified Communications Manager Recovery CD should have hardware diagnostic option
CSCsf28239	Disaster Recovery restore attempt on a first node fails
CSCsg14500	Default view should be given the option to enable or disable
CSCsg51364	Several Unified Communications Manager critical alarms need option for being sent to remote syslog server
CSCsg62534	SMTP Server Configuration Not Populated After a Fresh Unified MeetingPlace Express Install

Table 5 Open Caveats in Cisco Unified Communications Release 6.0(1) (continued)

Identifier	Headline
CSCsg73799	Unified MeetingPlace IP Gateway does not support G.722 codec
CSCsh58895	Unified Communications Manager cannot send system or platform agent logs to remote syslog server
CSCsh67902	Codec preference not getting used during calls through an IP-to-IP Gateway
CSCsh68282	Unified Communications Manager installation does not detect Cisco brand USB drive/key in answer file
CSCsh76093	Disaster Recovery System does not back up or restore its own settings
CSCsh80286	After Unified Communications Manager upgrade, you cannot access the Alert Central window after opening an Real-Time Monitoring Tool (RTMT) saved profile with Alert Central
CSCsh81228	Issuing a Show Cluster command displays the initial subsequent node in the cluster as a first node
CSCsi03591	Real-Time Monitoring Tool (RTMT) Trace & Log Central on-demand jobs should provide warnings when Unified Communications Manager is experiencing a high I/O condition
CSCsi13219	Unified MeetingPlace upgrade duration warning needed before upgrade begins
CSCsi26984	Need a way to set Unified Communications Manager route list and route group thresholds using Unified Operations Manager Service Level View
CSCsi46698	Cisco Security Agent (CSA) must be disabled on Customer Response Solution (CRS) platform in order to perform JTAPI resynchronization
CSCsi50993	200 OK SIP message without Allow:NOTIFY from Cisco Unity causes out-of-band DTMF negotiation to fail
CSCsi62507	Unified MeetingPlace console screen shifts even though users do not trigger it
CSCsi65435	Peer-to-Peer Image Distribution (PPID) functionality on Unified IP Phone 7961G fails at low bandwidth due to source phone TFTP timeout
CSCsi72484	Unified MeetingPlace audio server upgrade takes excessive amount of time
CSCsj29865	How to configure Cisco Fax Relay and Fax Passthrough

Troubleshooting

For important troubleshooting information, tips, and recommendations related to Cisco Unified Communications System Release 6.0(1) for IP telephony, see the troubleshooting information at: http://www.cisco.com/iam/unified/ipt601/Introduction_to_Troubleshooting.htm.

Documentation Updates

- Technical Information Sites—The Unified Communications Technical Information Sites available by typing www.cisco.com/go/unified-techinfo are your one-stop location for all system-level documentation, resources, and training. These sites provide information on tested deployment models and sites, topology diagrams, and call flows. The sites specific to IP telephony or contact center system applications for Unified Communications Release 6.0(1) are:
 - Cisco Unified Communications System for IP Telephony Release 6.0(1): <http://www.cisco.com/iam/unified/ipt601/index.htm>
 - Cisco Unified Communications System for Contact Center Release 6.0(1): <http://www.cisco.com/iam/unified/ipcc601/index.htm>

- *System Installation and Upgrade Manual*—The document now contains two parts: Part 1—System Installation for IP Telephony and Part 2—System Upgrade for IP Telephony. Part 1 provides new system-level information required to install IP telephony components, including types of installations, installation strategies, and the recommended installation sequence. Part 2 has been updated with the supported upgrade paths to Cisco Unified Communications Release 6.0(1), upgrade considerations to be aware of as you perform the upgrade, and the recommended upgrade sequence. This document is available at:
<http://www.cisco.com/univercd/cc/td/doc/systems/unified/uc601/siumipt/siumt601.pdf>
- *System Test Results for IP Telephony: Cisco Unified Communications Release 6.0(1)*—Test results of the IP telephony system testing are available at:
http://www.cisco.com/iam/unified/ipt601/System_Test_Results.htm

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

This document is to be used in conjunction with the documents listed in the “[Related Documentation](#)” section.

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System Release Notes for IP Telephony: Cisco Unified Communications System, Release 6.0(1)
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