



System Release Notes for IP Telephony for Small and Medium Business: Cisco Unified Communications System, Release 7.0(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 for small and medium business, supplementing the product-level testing performed on each Cisco Unified Communications product.

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 teams. 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 7.0(1), see [System Requirements, page 13](#). 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>

The focus of this document is on the IP telephony for small and medium business components of Cisco Unified Communications system testing. IP telephony enterprise and IP contact center components have also been tested. For additional information on IP telephony enterprise components, please see: <http://www.cisco.com/iam/unified/ipt701/ENT/index.htm>. For additional information on contact center components, please see: <http://www.cisco.com/iam/unified/ipcc701/index.htm>

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 Express
- Conferencing components, such as Cisco Unified MeetingPlace Express
- Voice mail and unified messaging components, such as Cisco Unity Express
- Endpoints and clients, such as Cisco Unified IP Phone 7900 Series phones, 3900 Series Phones, Cisco IP Communicator
- Wireless and mobility components, such as Cisco Aironet Access Points and Cisco 521 Wireless Express Access Point
- Network management tools, such as Cisco netManager Unified Communications
- Communications infrastructure devices, such as Cisco Unified Communications 500 Series for Small Business, Cisco Integrated Services Routers, gateways/gatekeepers, and switches

**Note**

For a more complete list of IP telephony components that may be present in a Unified Communications Release 7.0(1) system, see [Software Version Matrix](#).

Cisco Unified Communications For Small and Medium Business

The Cisco Unified Communications System offers the following solutions for small and medium businesses:

- [Cisco Unified Communications 500 Series for Small Business](#) (Unified Communications 500 Series) which is an integral component of Cisco Smart Business Communications System is suitable for small businesses having lesser than 50 users.

- Cisco offers [Cisco Unified Communications Manager Express Solution for Medium Business](#) on Cisco Integrated Services Router (ISR) for medium businesses having 50 to 250 users

Cisco Unified Communications 500 Series for Small Business

Cisco Unified Communications 500 Series for Small Business (Unified Communications 500 Series) is an affordable integrated system that brings voice, data, video, and wireless networking to small businesses. Unified Communications 500 Series is an integral component of Cisco Smart Business Communications System for small businesses. Cisco IOS Software solution embedded in the Cisco Unified Communications 500 Series appliance provides Cisco Unified Communications Manager Express for call processing and Cisco Unity Express for voicemail, desktop messaging and Automated-Attendant services.



Note

For a more complete list of IP telephony components for small business that may be present in a Unified Communications Release 7.0(1) system, see [Software Version Matrix, page 15](#).

Cisco Unified Communications Manager Express Solution for Medium Business

Cisco Unified Communications Manager Express Solution provides highest voice trunk densities, scalability and performance for IP Communications. Cisco Unified Communications Manager Express is a Cisco IOS Software solution that provides call processing for Cisco Unified IP phones. Simple to deploy, administer, and maintain, Cisco Unified Communications Manager Express is a reliable, feature-rich telephony solution. Depending on the Integrated Services Router (ISR) you install, you can have up to 240 IP phones on your company network.



Note

For a more complete list of IP telephony components for medium business that may be present in a Unified Communications Release 7.0(1) system, see [Software Version Matrix, page 15](#).

Tested Functionality

The system-wide testing of IP telephony functionality for Cisco Unified Communications Release 7.0(1) included the following:

- Testing on the following upgrade paths for IP telephony for small and medium business:
 - Cisco Unified Communications Release 6.0(1) to Cisco Unified Communications Release 7.0(1). For detailed information about the IPT deployment models and topologies that are developed to test this release set, see [Review Tested Site Models for IP Telephony](#).



Note

Cisco Unified Communications Manager Express 4.1/ IOS 12.4(15)T is part of the Cisco Unified Communications Release 6.0(1) set.

- Cisco Unified Communications Release 6.1(1) to Cisco Unified Communications Release 7.0(1). For detailed information about the IPT deployment models and topologies that are developed to test this release set, see [Review Tested Site Models for IP Telephony](#)



Note Cisco Unified Communications Manager Express 4.1/ IOS 12.4(15)T and 4.2/IOS 12.4(11)XW5 are part of the Cisco Unified Communications Release 6.1(1) set.

- You can directly upgrade to Cisco Unified Communications Manager Express 7.0/12.4(20)T from the following versions for Cisco Unified Communications Manager Express/IOS:
 - Cisco Unified Communications Manager Express 4.0(2)/IOS 12.4(11)T3
 - Cisco Unified Communications Manager Express 4.0(2)/IOS 12.4(11)T2
 - Cisco Unified Communications Manager Express 4.0(2)/IOS 12.4(11)T
 - Cisco Unified Communications Manager Express 3.4(0)/IOS 12.4(6)T1
 - Cisco Unified Communications Manager Express 3.4(0)/IOS 12.4(6)T



Note The above Cisco Unified Communications Manager Express versions are not part of Unified Communications System.

- For a list of the target Cisco Unified Communications System Release 7.0(1) versions that the IP telephony components were upgraded to, see [Software Version Matrix, page 15](#). System upgrade information is provided in the System Installation and Upgrade Manual for IP Telephony Small and Medium Business at:
http://www.cisco.com/en/US/docs/voice_ip_comm/uc_system/UC7.0.1/ipt_smb_system_ins_upg/suimtsmb.pdf
- Deployment models tested for the IP telephony small and medium business environments include:
- Cisco Unified Communications deployment model for small business:
 - Call flows from Cisco Unified Communications 500 Series to other Cisco Unified Communications Manager Express + Integrated Services Routers or other Cisco Unified Communications 500 Series through IP-to-IP Gateway
 - T.38 Fax deployment using Unified Communications 500 Series to receive, store and forward T.38 faxes
- Cisco Unified Communications Manager Express deployment models for medium business:
 - Small Campus Multisite H.323 consists of one site called Warsaw (WAW). This model includes 13 Cisco Unified Communications Manager Express sites connected to each other and to the rest of the network through H.323 gatekeepers.
 - Small Campus SIP Unified Communications Manager Express site consists of one site called Atlanta (ATL). This site includes four Cisco Unified Communications Manager Express routers, 400 SIP endpoints, and one Cisco Unity Express.
 - Small Campus H.323 Unified Communications Manager Express site model consists of one site called Toronto (YYZ). This site includes four Cisco Unified Communications Manager Express routers, one Cisco Unity Express and one H.323 gatekeeper. The Unified Communications Manager Express routers connects to a Unified MeetingPlace server via the H.323 gatekeeper.

The following features and functionality were tested:

- Distributed Call Processing (H.323) Cisco Unified Communications Manager Express sites
- H.323 based Cisco Unified Communications Manager Express sites. Gatekeeper connectivity; VPIM V2; Cisco IOS Firewall
- SIP based Cisco Unified Communications Manager Express sites

- Testing of calls from Cisco Unified Communications 500 Series to other Cisco Unified Communications Manager Express on Integrated Services Router or Cisco Unified Communications 500 Series through IP-to-IP Gateway
- Testing calls between Cisco Unified Communications Manager Express clusters
- Testing integration with Cisco Unity Express

Additional functionality tested for Cisco Communications Manager Express includes:

- Transfer to VM Softkey
- Call Barge/Privacy Release
- Wideband Codec support
- Live record softkey for use with Cisco Unity Express
- Cisco Unified Communications Manager Express hunt group functionality
- 8-line per button support for Cisco Communications Manager Express
- Cisco Communications Manager Express video support
- Basic SIP calls between Cisco Communications Manager Express clusters
- IP and H.323 call functionality
- Call via IP-to-IP-GW forwarded to Cisco Unity Express
- Deposit and retrieve voicemail from PBX Phone to a AIM CUE Group Mailbox on Cisco Unified Communications Manager Express
- Transfer Recall: works only with SCCP phones
- Live record with Cisco Communications Manager Express
- Parallel Hunt group
- Cisco Unified CallConnector for MS Windows Client integration with Cisco Communications Manager Express
- TLS across SIP trunk

The following are Cisco Unified Border Element feature was tested:

- Transcoding between iLBC and g722, g711 and iLBC/g722, g729 and iLBC/g722

New and Changed Features

This release of Cisco Unified Communications system includes the new or upgraded significant components since Release 6.1(1). This section provides information on the new or changed features and functionality in these components;

- [Cisco Unified Communications 500 Series for Small Business](#)
- [Cisco Unified Communications Manager Express Solution for Medium Business](#)

Cisco Unified Communications 500 Series for Small Business

- [Cisco IOS 12.4\(20\)T/Unified Communications Manager Express](#)
- [Cisco Unity Express](#)
- [Cisco Unified MeetingPlace Express](#)

- [Unified CallConnector for MS Windows Client](#)
- [Cisco Unified Contact Center Express](#)
- [Cisco IP Communicator](#)
- [Cisco Unified Video Advantage](#)
- [Cisco netManager Unified Communications](#)
- [Cisco Catalyst Express 520 Series](#)
- [Cisco Unified IP Phone Support](#)

Cisco Unified Communications Manager Express Solution for Medium Business

- [Cisco IOS 12.4\(20\)T/Unified Communications Manager Express](#)
- [Cisco Unity Express](#)
- [Cisco Unified MeetingPlace Express](#)
- [Cisco Unified Contact Center Express](#)
- [Cisco IP Communicator](#)
- [Cisco Unified Video Advantage](#)
- [Cisco netManager Unified Communications](#)
- [Cisco Unified IP Phone Support](#)
- [Cisco IOS 12.4\(15\)T7](#)
- [Cisco IOS 12.4\(18c\) Mainline](#)

Cisco IOS 12.4(20)T/Unified Communications Manager Express

In Cisco Unified Communications System Release 7.0(1), the Cisco IOS release version has the following changes and updates to functionality since its previous release:

- Cisco Unified Communications Manager Express Extension Mobility Enhancements
- Cisco Unified Communications Manager Express 4.2: Media Encryption (SRTP)
- Configuration enhancements such as:
 - Configurable Bandwidth Parameters for SIP Calls
 - Configurable SIP Listening Port
 - Configurable SIP Parameter Modification
- Disable Outbound SIP Proxy on a Per Dial-Peer Basis
- Ability to Generate a Busy After Remote End On-Hook
- Call Detail Records (CDR) Comma Separated Value Format with FTP and Flash Storage
- E-911 Services for CME
- H.323 Name Display
- Enhanced ARQ and RRQ Security for Gatekeeper Registrations
- Gatekeeper Enhancement: Support for Extended Interzone Clear Token
- ISDN Q.931 Tunneling over SIP TDM Gateway

- Session Border Controller Enhancements for H.323-SIP and SIP-SIP Supplementary Services, Transcoding Optimization, and Firewall Integration
- SIP—Support for SESSION REFRESH with reINVITEs
- SIP—Support for SIP Video Calls with Flow Around Media
- SIP Delayed Offer to Early Offer for Video Calls
- Transparent Tunneling of QSIG and Q.931 over SIP—SIP Cisco Unified Border Element (CUBE)
- Transparent Tunneling of QSIG over SIP TDM Gateway

For a detailed description of these and other Cisco IOS Release 12.4(20)T features, see *Release Notes for Cisco IOS Release 12.4(20)T* at:

http://www.cisco.com/en/US/docs/ios/12_4t/12_4t20/12_4_20_t_newfeatlist.html

Cisco Unity Express

Unity Express Release 3.2 includes the following changes and updates to functionality since Release 3.1(1):

- Integration with multiple Unified Communications Manager Express sites
- Nonsubscriber Recipients in Distribution Lists
- PINless Login to Voice-Mail
- Enhanced Installation Procedures and Increased Upgrade Paths
- Password Synchronization Between Cisco Unity Express and Cisco Unified Communications Manager Express
- Login Banner Support for CLI Access

For a detailed description of these features and functionality, see *Release Notes for Cisco Unity Express Release 3.2* at:

http://www.cisco.com/en/US/docs/voice_ip_comm/unity_exp/rel3_1/release/notes/rncue32.html

Cisco Unified Contact Center Express

Cisco Unified CCX 7.0(1) SR1 provides the following new features:

- Supports upgrade from CRS 4.5(x) to Unified CCX 7.0(1), CRS 5.0(x) to Unified CCX 7.0(1).
- Unified CCX 7.0(1) is aligned with CAD 6.6.
- Backward compatibility with all the features of CRS 4.5(x) and CRS 5.0(x).
- Support for JRE Version 1.5.0_14.
- Name change from Cisco CRS to Cisco Unified CCX.
- Tomcat Migration from v3.2 to v 5.5 for enhanced security
- Outbound Feature licence is now included as part of the Premium licence. There is no separate Outbound feature license.
- The Licence Validator tool is no longer in the form of a CD. It is now available for download from the Tools and Resources downloads page.
- Supports new CAD/CSD enhancements such as Tabbed browser and Browser edition in the desktop.
- New localizations to include Arabic (prompts only), Russian (all user interface elements), Norwegian and Finnish1 for CAD/CSD and prompts.

- Support for Agent E-mail - which is included in the Unified CCX Premium licence.
- Support for Nuance 9.0

Cisco IP Communicator

Cisco IP Communicator Release 2.1(3) has no new functionality from Release 2.1(1) which was a part of the previous Cisco Unified Communications System Release 6.1(1).

For a detailed description of Cisco IP Communicator Release 2.1(1) features and functionality, see *Release Notes for Cisco IP Communicator Release 2.1(1)* at:

http://www.cisco.com/en/US/docs/voice_ip_comm/cipc/2_1/english/release/notes/ol113782.html

Cisco Unified Video Advantage

Cisco Unified Video Advantage Release 2.1(1) provides these new features:

- Camera support:
 - Support for third-party video cameras.
 - Separate installers for Unified Video Advantage and for Cisco VT Camera drivers
- Video Advantage no longer installs the Cisco VT Camera drivers).
- Operating systems—Support for Windows Vista (in addition to Windows XP and Windows 2000).
- Phone support—Unified Video Advantage supports all Unified IP Phones running SCCP (CDP enabled and CAST enabled) that can be enabled for video on Unified Communications Manager.
- User interface improvements and installation and upgrades/updates
- Serviceability enhancements such as support for call quality logging.

For a detailed description of Unified Video Advantage Release 2.1(1) features and functionality, see *Release Notes for Cisco Unified Video Advantage, Release 2.1(1)* at:

http://www.cisco.com/en/US/docs/video/cuva/2_1/english/release/notes/ol15290.html

Cisco Unified MeetingPlace Express

Cisco Unified MeetingPlace Express 2.0(3) has no new functionality from Release 2.0(2) which was a part of the previous Cisco Unified Communications System Release 6.1(1).

For a more information on Cisco Unified Communications MeetingPlace Express 2.0(2) and 2.0(3) releases, see *Release Notes for Cisco Unified MeetingPlace Express Release 2.0* at:

http://www.cisco.com/en/US/docs/voice_ip_comm/meetingplace_express/2_0/english/release/notes/b_rn20.html

Cisco netManager Unified Communications

Cisco netManager Unified Communications 1.1 provides these new features:

- New device support:
 - SIP capability on Cisco Unified Communications Manager Express
 - Cisco Unity Express 3.0, 3.1
 - Cisco IP Communicator 2.1, 3.0
 - Cisco Unified Contact Center Express 7.0(1)SR1

- Cisco 1861 Integrated Services Router
- SIP capability on gateways
- Notification filtering capability. Multiple rules can be defined to filter events before forwarding them as e-mails to user-specified e-mail addresses. You can create notification criteria based on devices, device groups, event types, or event severity.
- Enhancements to the Physical View Connectivity topology, including:
 - UI update. Added a device search field and summary panel that resembles the options available in the Service Level View topology.
 - Ability to acknowledge all device events. Right-click a device and select **Acknowledge All Events**.
 - Ability to remember each user's last scroll and zoom positions.
 - Ability to view device by hostname, IP address, or both. Select **GO > Physical Connectivity View Settings**.
- Option to configure the number of data records displayed to allow for quicker display of reports for Cisco Faults, Fault History, SNMP Trap Log, Syslog, and Windows Events Log. Select **GO > Configure > Report Preferences**.
- Option to easily view Lwaps registered to a Wireless LAN Controller. From the Device tab, right-click the Wireless LAN Controller and select **Reports > Lwap Summary....**
- New Dynamic Group Builder to help users create and validate SQL queries for new Dynamic Groups.
- New Group State Summary Report. The report provides device status summary information on the individual device states and group states.
- New Quarterly Availability Summary Report. This group report provides rolled-up availability statistics on groups of devices and services that are monitored.
- Improved list-control and tree-control behavior for improved usability. Controls respond more quickly; key handling, scrolling, and paging have been improved.
- Ability to clear maintenance schedules using Bulk Field Change.

For more information on Cisco netManager Unified Communications, see *Release Notes for Cisco netManager Unified Communications 1.1* at:

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

Unified CallConnector for MS Windows Client

These are the few features of Unified CallConnector for MS Windows Client 1.4:

- Multiple email profiles can be configured on the PC by the user to log on to different email accounts. Additional options for logging on to these email profiles are now configurable from the Popup->Options->Email section. These include:
 - Disable MAPI: This disables all MAPI based access to Outlook data.
 - Use Default Outlook Profile: Popup opens the email profile specified for Outlook from the Window Control Panel.
 - Prompt for a Profile: Popup will prompt the user to select the profile when it is started.
 - Use Specified Profile: Popup always uses the specified profile for accessing Outlook contact information.

- **Highlight-and-Dial:** The current method of highlighting a telephone number and clicking on the Popup icon does not always dial the number. An additional capability has been added to this feature, once the number has been highlighted, users can press the Dial shortcut keys to auto-dial the number. The default Dial short-cut key is CTRL+CTRL (control key pressed twice)
- **Configurable Short-cut Keys:** The short-cut keys for Auto-dial, Quick-dial (brings up the Quick Dial window) and Lines Menu are configurable from the Unified CallConnector for MS Windows Client XML file. Multiple short-cut keys can be specified for one feature, each separated by a comma.
- **Contact window in Outlook and Internet Explorer** now display an additional icon for location. Both the availability status and location are updated in real-time along with the Status window. The same availability and location information will be displayed on Status and any open contact windows.
- **Page-up and Page-Down Buttons** have been added to the Contacts and Log windows to allow the user to view the next page of contacts. These windows display approximately the first one hundred entries. Users can now use page-down to view the next one hundred entries.
- **Support for Windows Vista Operating System.** Note this requires the User Account Control to be turned off from Control Panel ' User Accounts.
- **Ability to specify the network adaptor to be used to connect to the Cisco Unified CallConnector MS Windows Server or the Cisco Unified Communications Manager Express.** From the Popup' Options window user can click on the Network Adapters button and select the network adaptors for Cisco Cisco Unified CallConnector MS Windows Client. In the event the connection cannot be made on the first adaptor, the Cisco Unified CallConnector MS Windows Client will try the second adaptor etc.
- **Dial Plan changes to support extension masks and special PSTN numbers.** These need to be configured to allow the client to recognize extension numbers. This version also includes changes to support certain European dialing requirements related to variable length numbers.
- **Status Change on Idle.** You can have the Cisco Unified CallConnector MS Windows Client automatically change your availability status to a specified status, typically 'Busy', if there is no activity (mouse movement or keyboard presses). Note the Cisco Unified CallConnector MS Windows Client component ucchelper.dll hooks the Windows interrupts for this purpose and may trigger anti-virus programs. If this is the case, you need to allow the ucchelper.dll to continue to run.

For more information on Cisco Unified CallConnector Windows Client, see *Release Notes for Server and Mobile Editions of Cisco Unified CallConnector for Microsoft Windows 1.4:*

http://www.cisco.com/en/US/docs/voice_ip_comm/cucallconnectors/UCCReINt_13.html#wp50614

Cisco Catalyst Express 520 Series

These are the new features for Cat Express 520 Series:

- Initial setup requires only IP information for the first-time switch configuration.
- Quick IP address updates if you move the switch to a different network.
- Date and time settings automatically synchronized between the switch and your PC or laptop.
- Dynamic Host Configuration Protocol (DHCP) automatically assigns the switch an IP address, a default gateway, and a subnet mask from a DHCP server.
- ALERT LED notifies that one or more problems were detected on the switch.
- Alert Log lists all problems detected on the switch, including a timestamp of the most recent detection of each problem.
- Graphical Front Panel view of the switch LEDs and a Dashboard, which displays gauges and graphs that show the switch and the port status, the port utilization, and the port error percentages.

- Depending on the switch, the Dashboard displays an animated indicator that shows the switch temperature or the internal fan status.
- Port status and statistics tables and graphs display port operating status and the statistics for data being received and sent on each port.
- Smartport status display the port roles assigned to the switch ports.
- Secure Socket Layer (SSL) protocol authenticates and encrypts communications to the switch device manager GUI.

For more information on Catalyst Express 520 Switches, see *Release Notes for the Catalyst Express 520 Switches*:

http://www.cisco.com/en/US/docs/switches/lan/catalystexpress520/release_12.2_35_EX/release/notes/ol12762.html

Cisco Unified IP Phone Support

The following features and functionality are introduced in phone firmware release 8.4(1):

- Enhanced Services Provisioning—Allows Unified Communications Manager administrators to offer a wider variety of phone services on Unified IP Phones. Administrators can configure these services as default features, or allow phone users to subscribe or unsubscribe to the services by using Unified Communications Manager User Options.
- Host Movement Detection—Extends Cisco Discovery Protocol (CDP) to include a Second Port Status Type, Length, Value (TLV) that informs a network switch of the presence or absence of devices connected to a Unified IP Phone. This enhancement ensures that the Unified IP Phone port is closed when a device is removed, so the port cannot be accessed by plugging in another unauthorized device.
- Phone screen appearance changes including:
 - Dynamic call window—Minimizes the amount of screen space obscured when an active call is present.
 - Transparent line label—Minimizes the amount of screen space obscured when a line button has been provisioned with a text label.
 - Transparent status message line—Minimizes the amount of screen space obscured by the phone status messages by changing from using a shaded background to shadowed text.
- Secure Indication Tone—Unified IP Phones now support protected calling, which plays a security tone at the beginning of a call to indicate the connection is secure (encrypted) on both ends, providing integrity and privacy to the call. Some features, such as conference calling, shared lines, Extension Mobility, and Join across Lines are not available when protected calling is configured. Protected calls are not authenticated.
- Phone support— Unified Video Advantage supports all Unified IP Phones running SCCP (CDP enabled and CAST enabled) that can be enabled for video on Unified Communications Manager.
- Cisco Unified IP Phone Expansion Module 7915/7916— This expansion module attaches to the Cisco Unified IP Phone 7962G. Each Expansion Module adds up to 24 extra line appearances or programmable buttons to your IP Phone.
 - For SCCP phones, you can attach up to two Expansion Modules to your Cisco Unified IP Phone for a total of 48 extra line appearances or programmable buttons.
 - For SIP phones, you can attach up to two Expansion Modules to your Cisco Unified IP Phone for a total of 36 extra line appearances or programmable buttons.

For 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 IOS 12.4(15)T7

Cisco IOS Release 12.4(15)T7 was tested on Cisco 37xx Series voice gateways and gatekeepers and on the Cisco Communications Media Module in the contact center environment. Cisco IOS Software Release 12.4(15)T will be the last Cisco IOS T release for several Cisco hardware platforms. The following platforms will be supported by Release 12.4(15)T7 and higher releases via regularly scheduled software maintenance rebuilds and bug fix support until the end of software maintenance date for the respective platform is reached.

- Cisco 831, 836, and 837 Series
- Cisco 3725 and 3745 Series
- Cisco AS5850 Universal Gateway
- Cisco AS5400HPX Gateway
- Cisco Catalyst Switch Communications Media Module (CMM)

For more information on the unsupported platforms, see:
http://www.cisco.com/en/US/prod/collateral/iosswrel/ps8802/ps6968/ps6441/product_bulletin_c25_466578.html

This section describes new and changed features in Cisco IOS Release 12.4(15)T7. Some features may be new to Cisco IOS Release 12.4T but were released in earlier Cisco IOS software releases. Some features may have been released in earlier Cisco IOS software releases and have been changed in Cisco IOS Release 12.4(15)T7.

IOS Software Release 12.4(15)T7 includes the following hardware changes and updates to functionality since Release 12.4(15)T:

- New Hardware features supported include Cisco Serial/DSU/CSU High-Speed WAN interface cards

IOS Software Release 12.4(15)T5 includes the following software changes and updates to functionality since Release 12.4(15)T:

- Cisco Group Encrypted Transport VPN—The Cisco Group Encrypted Transport feature is now supported on VSA.
- RSVP Agent on Cisco 7200 Series Routers—The RSVP Agent feature is now supported on the following router platforms using the Cisco IOS Advanced IP Services Image or higher:
 - Cisco 7200 series router (with NPE-G1 or NPE-G2)
 - Cisco 7201 series router
 - Cisco 7301 series router

For a detailed description of Cisco IOS Release 12.4(15)T7 features and functionality, 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(18c) Mainline

The majority of Cisco Unified Communications Release 7.0(1) system testing was performed using Cisco IOS Release 12.4(20)T. However, automated testing of basic call functionality and additional load testing were performed using the Cisco IOS Release 12.4(18c) 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.

Testing was performed using the following voice/data gateways:

- 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)

To compare the differences in features and functionality between 12.4(20)T and 12.4(18c), 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(18c) 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)

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 7.0(1). This section contains the following information:

- [End-of-Sale Components, page 13](#)
- [Deployment Considerations, page 14](#)
- [Software Version Matrix, page 15](#)
- [Firmware Version Matrix, page 16](#)
- [Latest Software Upgrades and Licenses, page 17](#)

End-of-Sale Components

The following components have reached end-of sale (EOS) status. However, because they are still supported and may be present in existing customer deployments, have remained installed in the IP telephony test beds for this Cisco Unified Communications release.

- Cisco 831, 836, and 837 Series Routers
- Cisco Catalyst 3550 Series Switches (replaced by Cisco 3750 Catalyst Switches)
- Cisco 3600 Series Multiservice Platforms (Cisco 3620, Cisco 3640A, and Cisco 3660 (non “-CO” models))
- Cisco 3700 Series Multiservice Access Routers (replaced by Cisco 3800 Series Routers)
- Cisco AS5850 Series Universal Gateways
- Cisco Catalyst 6500 Series Supervisor Engine 2 / MSFC2
- Analog Telephone Adaptor model ATA188
- Cisco VT Advantage (CVT-ADV-E1)

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/web/psa/products/index.html>. Then click on the End-of-Sale and End-of-Life Products link in the Select a category 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 7.0(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 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

This section lists the following software release versions:

- [Software Release Versions in Cisco Unified Communications Release 7.0\(1\) for IP Telephony for Small Business](#)
- [Software Release Versions in Cisco Unified Communications Release 7.0\(1\) for IP Telephony for Medium Business](#)

Table 1 lists the software release versions of both Cisco and third-party components used in the Cisco Unified Communications Release 7.0(1) system test.

Table 1 *Software Release Versions in Cisco Unified Communications Release 7.0(1) for IP Telephony for Small Business*

Category	Component	Release Version
Call Control	Cisco Unified Communications Manager Express	7.0/IOS 12.4(20)T ¹
Voice Mail and Unified Messaging	Cisco Unity Express	3.2(1)
Contact Center	Cisco Unified Contact Center Express ²	7.0(1)SR1
Conferencing	Cisco Unified MeetingPlace Express	2.0(3)
Endpoints and Clients	Cisco Unified IP Phones 7902G, 7905G, 7906G, 7911G, 7912G, 7920, 7921G, 7931G, 7935, 7936, 7937G, 7940G, 7941G, 7942G, 7945G, 7960G, 7961G, 7962G, 7965G, 7970G, 7971G, 7975G, 7985G	Firmware 8.4.1
	Cisco Unified IP Phones 500 Series: Cisco Unified IP Phones 521G and 524G models	Firmware 8.4.1
	Cisco IP Communicator	2.1(3)
	Cisco Unified Video Advantage	2.1(1)
	Cisco Unified CallConnector for MS Windows Client	1.4
Wireless	Cisco 521 Wireless Express Access Point	Built-in with Unified Communications 500 Series
Network Management	Cisco netManager Unified Communications	1.1
Communications Infrastructure	Cisco Unified Communications 500 Series for Small Business	12.4(20)T ¹
	Cisco IOS Firewall	12.4(20)T1
	Cisco Catalyst Express 520 Series LAN Switches	Built-in with Unified Communications 500 Series

1. Cisco IOS Firewall version is 12.4(20)T1.

2. Cisco Unified Contact Center Express was not tested in the Cisco Unified Communications System Test environment for small and medium business.

Table 2 lists the release versions of the Cisco Unified Communications Release 7.0(1) components for medium business that were used in the IPT test environment.

Table 2 *Software Release Versions in Cisco Unified Communications Release 7.0(1) for IP Telephony for Medium Business*

Category	Component	Release Version
Call Control	Cisco Unified Communications Manager Express	7.0/IOS 12.4(20)T ¹
Voice Mail and Unified Messaging	Cisco Unity Express	3.2(1)
Contact Center	Cisco Unified Contact Center Express ²	7.0(1)SR1
Conferencing	Cisco Unified MeetingPlace Express	2.0(3)
Endpoints and Clients	Cisco Unified IP Phones 7902G, 7905G, 7906G, 7911G, 7912G, 7920, 7921G, 7931G, 7935, 7936, 7937G, 7940G, 7941G, 7942G, 7945G, 7960G, 7961G, 7962G, 7965G, 7970G, 7971G, 7975G, 7985G	Firmware 8.4.1 See Firmware Version Matrix, page 16
	Cisco IP Communicator	2.1(3)
	Cisco Unified Video Advantage	2.1(1)
Configuration Management	CiscoWorks Resource Manager Essentials	4.0.5
Network Management	Cisco netManager Unified Communications	1.1
Communications Infrastructure	Cisco IOS Mainline Release ³	12.4(18c)
	Cisco 3845 (IP-to-IP gateway)	12.4(20)T
	Cisco 3745 (gatekeeper) ⁴	12.4(15)T7
	Cisco Integrated Services Router 1800, 3800, and 2800 series	12.4(20)T
	Cisco IOS Firewall	12.4(20)T1
	Cisco Unified Border Element	12.4(20)T
	Catalyst 3550, 3560, 3750 Switches	12.2(25)SEE4
	Cisco Catalyst 4503, 4506 (access switch)	12.2(25)SEE4

1. Cisco IOS Firewall version is 12.4(20)T1.
2. Cisco Unified Contact Center Express was not tested in the Cisco Unified Communications System Test environment for small and medium business.
3. IOS Mainline Release 12.4(18b) was used for additional basic PSTN functionality and load testing as part of regression testing conducted in IP telephony environments.
4. Cisco IOS Release 12.4(15)Tx is the last release supported on the Cisco 37xx Series; these components are not supported on Release 12.4(20)T.

Firmware Version Matrix

Table 3 lists the firmware versions of the Cisco Unified IP Phones, analog adaptors, voice gateways and conference bridges used in the Cisco Unified Communications Release 7.0(1) system test.

Table 3 *Firmware Versions for Cisco Devices in Cisco Unified Communications Release 7.0(1) for IP Telephony*

Component	SCCP Firmware Version	SIP Firmware Version
Cisco Unified SIP Phone 3911	—	SIP3951.8-1-2

Table 3 *Firmware Versions for Cisco Devices in Cisco Unified Communications Release 7.0(1) for IP Telephony*

Component	SCCP Firmware Version	SIP Firmware Version
Cisco Unified IP Phone 7902G ¹	CP7902080002SCCP060817A	—
Cisco Unified IP Phone 7905G	CP7905080003SCCP070409A	CP7905080001SIP060412A
Cisco Unified IP Phone 7906G	SCCP11.8-4-1S	SIP11.8-4-1S
Cisco Unified IP Phone 7911G	SCCP11.8-4-1S	SIP11.8-4-1S
Cisco Unified IP Phone 7912G	CP7912080003SCCP070409A	CP7912080001SIP060412A
Cisco Unified IP Phone 7920	cmterm_7920.4.0-03-02	—
Cisco Unified IP Phone 7921G	CP7921G-1.2.1	—
Cisco Unified IP Phone 7931G	SCCP31.8-4-1S	SIP31.8-4-1S
Cisco Unified IP Phone 7935	P00503021900	—
Cisco Unified IP Phone 7936	CMTERM_7936.3-3-16-0	—
Cisco Unified IP Phone 7937G	apps37sccp.1-2-1-0	—
Cisco Unified IP Phone 7940G	P00308000900	POS3-08-8-00
Cisco Unified IP Phone 7941G-GE ²	SCCP41.8-4-1S	SIP41.8-4-1S
Cisco Unified IP Phone 7942G	SCCP42.8-4-1S	SIP42.8-4-1S
Cisco Unified IP Phone 7945G	SCCP45.8-4-1S	SIP45.8-4-1S
Cisco Unified IP Phone 7960G	P00308000900	POS3-08-8-00
Cisco Unified IP Phone 7961G-GE	SCCP41.8-4-1S	SIP41.8-4-1S
Cisco Unified IP Phone 7962G	SCCP42.8-4-1S	SIP42.8-4-1S
Cisco Unified IP Phone 7965G	SCCP45.8-4-1S	SIP45.8-4-1S
Cisco Unified IP Phone 7970G	SCCP70.8-4-1S	SIP70.8-4-1S
Cisco Unified IP Phone 7971G-GE	SCCP70.8-4-1S	SIP70.8-4-1S
Cisco Unified IP Phone 7975G	SCCP75.8-4-1S	SIP75.8-4-1S
Cisco Unified IP Phone 7985G	CMTERM__7985.4-1-6-0	—
Cisco ATA 186, 188 (analog telephony adaptor)	ATA030203SCCP051201A	—
Cisco Catalyst 6608 (voice gateway)	D0040400003 ³	
Cisco Conference Bridge WS-X6608	C00104000003	

1. Phone model tested in EUEM site models only during Cisco Unified Communications Release 7.0(1) system testing.

2. SRST failover tested on phone model with SIP firmware load installed only, not with SCCP firmware load

3. 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.

Latest Software Upgrades and Licenses

The following are links to the latest software upgrades and licenses for Cisco Unified Communications Release 7.0(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 Express
- Cisco Unified Communications 500 Series for Small Business
- Unified MeetingPlace Express
- 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>
- Cisco 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>
- Product Upgrade Tool (for ordering CD's of new major/minor releases): <http://tools.cisco.com/gct/Upgrade/jsp/index.jsp>

Related Documentation

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

http://www.cisco.com/iam/unified/ipt701/SMB/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 Small and Medium Business* at:

http://www.cisco.com/en/US/docs/voice_ip_comm/uc_system/UC7.0.1/ipt_smb_system_inst_upg/suimtsmb.pdf

For additional information on specific hardware recommendations or bills of material for each product, see [System Requirements, page 13](#).

Table 4 provides links to the main page for documentation on various Cisco Unified Communications components, from which you can navigate to individual documents.

Table 4 *Related Documentation.*

Category	Component	Documentation URL
Call Control	Cisco Unified Communications 500 Series for Small Business	http://www.cisco.com/en/US/products/ps7293/tsd_products_support_series_home.html
	Cisco Unified Communications Manager Express	http://www.cisco.com/en/US/products/sw/voicesw/ps4625/tsd_products_support_series_home.html
Contact Center	Cisco Unified Contact Center Express	http://www.cisco.com/en/US/products/sw/custcosw/ps1846/tsd_products_support_series_home.html

Table 4 *Related Documentation.*

Category	Component	Documentation URL
Conferencing	Cisco Unified MeetingPlace Express	http://www.cisco.com/en/US/products/ps6533/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
Voice Mail and Unified Messaging	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 Unified IP Phone 500 series	http://www.cisco.com/en/US/products/ps7293/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 CallConnector MS Windows Client	http://www.cisco.com/en/US/products/ps7274/tsd_products_support_series_home.html
Network Management	Cisco netManager Unified Communications	http://www.cisco.com/en/US/products/ps7243/tsd_products_support_series_home.html
Communications Infrastructure	Cisco IOS Software Release 12.4(20)T	http://www.cisco.com/en/US/products/ps6441/tsd_products_support_series_home.html
	Cisco 3800 Integrated Services Router	http://www.cisco.com/en/US/products/ps5855/tsd_products_support_series_home.html
	Cisco 2800 Integrated Services Router	http://www.cisco.com/en/US/products/ps5854/tsd_products_support_series_home.html
	Cisco 870 Integrated Services Router	http://www.cisco.com/en/US/products/hw/routers/ps380/tsd_products_support_series_home.html
	Cisco 1861 Integrated Services Router	http://www.cisco.com/en/US/products/ps5853/tsd_products_support_series_home.html
	Cisco Catalyst 500 series Switch	http://www.cisco.com/en/US/products/ps6545/tsd_products_support_series_home.html
	Cisco Catalyst 3560 series Switch	http://www.cisco.com/en/US/products/hw/switches/ps5528/prod_release_notes_list.html

Limitations and Restrictions

This section includes the following topics:

- [Important Notes, page 20](#)
- [Open Caveats, page 20](#)

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.

Cisco offers a Product Alert Tool that provides you the ability to set up one or more profiles that will enable you to receive email notification of new Field Notices, Product Alerts or End of Sale information for the products that you have selected. The Product Alert Tool is available at:

<http://tools.cisco.com/Support/PAT>

Important Notes

This section includes important notes related to the testing of Cisco Unified Communications System Release 7.0(1) for IP telephony and includes the following issues:

- [Certain HP Ultra320 SCSI Hard Disks may Exhibit Reduced Performance and Timeouts \(CSCse71185\), page 20](#)
- [Open Caveats, page 20](#)

Certain HP Ultra320 SCSI Hard Disks may Exhibit Reduced Performance and Timeouts (CSCse71185)

A ProLiant server configured with any of the HP Ultra320 SCSI hard drives listed in HP Customer Advisory #C00677430 (available at <http://www.hp.com>) may exhibit reduced performance or have excessive timeouts. This performance issue is caused by the dynamically adjusted seek time profile table in the drive firmware after it becomes degraded.

When this problem occurs, the reduced performance is characterized by occasional brief delays in command response time while servicing random workloads and in severe cases the drive may exhibit command timeouts, which requires a server reboot for recovery.

Open Caveats

This section lists known caveats, grouped by severity, related to the testing of IP telephony components in Cisco Unified Communications Release 7.0(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 7.0(1)

Identifier	Headline
Severity 1-3 Caveats	
CSCsu54814	Cisco Unity Express prompts are not heard on Cisco Unified IP Phone 7985
CSCsr14919	Unified Communications 500 Series does not respond to Cisco-VTP-MIB
CSCsq24072	Blind transfer and transfer fail in the Unified Communications Manager Express
CSCsu46215	H323 calls are failing during test load (high BHCA)
Severity 4-6 Caveats	
CSCsk37734	Uploading duplicate contact in a outbound campaign fails; however, the import tool displays upload successful message
CSCsc30731	Multicast Music-On-Hold not supported by SIP gateway
CSCsc97966	Unified MeetingPlace Express will not register to a specific zone in gatekeeper

Table 5 Open Caveats in Cisco Unified Communications Release 7.0(1) (continued)

Identifier	Headline
CSCse71185	Certain HP Ultra320 SCSI HDs May Exhibit Reduced Perf and Timeouts. See Important Notes .

Troubleshooting

For important troubleshooting information, tips, and recommendations related to Cisco Unified Communications System Release 7.0(1) for IP telephony, see the troubleshooting information at: http://www.cisco.com/iam/unified/ipt701/SMB/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 7.0(1) are:
 - Cisco Unified Communications System for IP Telephony for Enterprise and Midmarket Release 7.0(1) Business Technical Information Site:
<http://www.cisco.com/iam/unified/ipt701/ENT/index.htm>
 - *Release Notes System Release Notes for IP Telephony for Enterprise and Midmarket: Cisco Unified Communications System Release 7.0(1)*:
http://www.cisco.com/en/US/docs/voice_ip_comm/uc_system/UC7.0.1/release_notes/rnipt701.html
 - Cisco Unified Communications System for IP Telephony for Small and Medium Business Release 7.0(1) Business Technical Information Site:
<http://www.cisco.com/iam/unified/ipt701/SMB/index.htm>
 - Cisco Unified Communications System for Contact Center Release 7.0(1) Business Technical Information Site:
<http://www.cisco.com/iam/unified/ipcc701/index.htm>
- *System Installation and Upgrade Manual for Small and Medium Business*—The document has been updated with the supported upgrade paths to Cisco Unified Communications Release 7.0(1), upgrade considerations to be aware as you perform the upgrade, and the recommended upgrade sequence. This document is available at:
http://www.cisco.com/en/US/docs/voice_ip_comm/uc_system/UC7.0.1/ipt_smb_system_inst_upg/suimtsmb.pdf
- *System Test Results for IP Telephony for Small and Medium Business: Cisco Unified Communications Release 7.0(1)*—Test results of the IP telephony system testing are available at:
http://www.cisco.com/en/US/docs/voice_ip_comm/uc_system/UC7.0.1/ipt_test_results/triptsmb701.pdf

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 for Small and Medium Business: Cisco Unified Communications System, Release 7.0(1)
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