



Cisco Collaboration System Description Release 10.0(1)

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CHAPTER

1

Introduction

This document provides an overview of the Cisco Collaboration Systems. It describes the Cisco Collaboration Systems approach, lists the main features of Cisco Collaboration components, and illustrates the various Cisco Collaboration Systems deployment models.

**Note**

From Release 10.0 onward, Cisco Unified Communications System is rebranded to Cisco Collaboration Systems to better reflect the Collaboration products included in the solution.

**Note**

Not all Collaboration System product release versions may be available at the same time. For latest product version availability, see individual product support pages at, <http://www.cisco.com/cisco/web/support/index.html>.

**Note**

Cisco Hosted Collaboration Solution (Cisco HCS) is a hosted solution that includes various Cisco Collaboration Systems release components. For more information about Cisco HCS see: [Cisco Hosted Collaboration Solution](#) and [Cisco HCS Product Support](#).

- [Overview, page 1](#)

Overview

A Cisco Collaboration System offers many features and solutions that allow people to collaborate effectively. It offers a coherent experience that connects people with people in familiar, intuitive, natural, simple ways using any media or device, at any time, while integrated with business processes. This integrated collaboration architecture with a converged voice, video and data network includes many products from Cisco's Collaboration portfolio.

Enterprise, mid-market or small and medium businesses can implement various system deployment models such as single site, multiple sites or cloud. Cisco Collaboration Systems Release 10.0(1) is backwards compatible with both Unified Communications System Release 9.0(1) and 8.6(1).

Highlights of the Cisco Collaboration Systems Release 10.0(1) include:

- **Collaboration without boundaries** — With [Cisco Collaboration Edge Architecture](#), remote and mobile experience is consistent both inside and outside the network. It provides secure business to business and consumer to business communication and cloud services.



Note Collaboration System Release 10.0(1) currently supports the Collaboration Edge infrastructure that you will be able to utilize when Collaboration Edge-enabled endpoints and clients become available in early 2014.

- **Pervasive Video Conferencing** — [Cisco Video Conferencing](#) enables best in class conferencing across the enterprise and enables integration with WebEx cloud services. Cisco's Pervasive Conferencing solutions offer easy to use, affordable, any-to-any multiparty video conferencing. Cisco TelePresence Server and Cisco TelePresence Conductor, key elements in Cisco's Pervasive Conferencing solutions, provide high quality video collaboration throughout the enterprise.
- **Unified management** — With [Cisco Prime Collaboration](#), single sign-on capability for system administrators simplifies network and license management of multiple Cisco Collaboration products.



CHAPTER 2

System Components

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Call Control

Cisco Unified Communications Manager

Cisco Unified Communications Manager (Unified Communications Manager) serves as the software-based call-processing component of the Unified Communications family of products. Unified Communications Manager extends enterprise telephony features and capabilities to packet telephony network devices such as IP phones, media processing devices, voice over IP (VoIP) gateways, and multimedia applications for a dual stack (IPv4 or IPv6) deployment.

Additional data, voice, and video services, such as unified messaging, multimedia conferencing, collaborative contact centers, and interactive multimedia response systems, interact through Unified Communications Manager open telephony application programming interface (API).

Unified Communications Manager provides signaling and call control services to Cisco integrated telephony applications as well as third-party applications. Unified Communications Manager performs the following primary functions:

- Call processing
- Signaling and device control
- Dial plan administration
- Phone feature administration
- Directory services
- Operations, administration, maintenance, and provisioning (OAM&P)
- Programming interface to external voice-processing applications such as Cisco IP Communicator, Cisco Unified IP Interactive Voice Response (IP IVR).

The dial plan feature in Unified Communications Manager allows you to:

- Route calls based on the physical location of the caller
- Represent calling and called party numbers in a global form such as that described by the International Telecommunications Union's E.164 recommendation
- Present calls to users in a format based on local dialing habits
- Present calls to external networks (for example, the PSTN) in a manner compatible with the local requirements for calling party number, called party number, and their respective numbering types
- Derive the global form of the calling party number on incoming calls from gateways, based on the calling number digits and the numbering type

**Note**

Single Sign On (SSO) for System Administrators gives access to Cisco Unified Communications Manager, Cisco Unity Connection, Unified CM IM and Presence Service, and Cisco Prime Collaboration

For additional information about Cisco Unified Communications Manager, go to:

<http://www.cisco.com/en/US/products/sw/voicesw/ps556/index.html>

Cisco Expressway Series

**Note**

Collaboration System Release 10.0(1) currently supports the Collaboration Edge infrastructure that you will be able to utilize when Collaboration Edge-enabled endpoints and clients become available in early 2014.

Cisco Expressway is designed specifically for comprehensive collaboration services provided through Cisco Unified Communications Manager. It features established firewall-traversal technology and helps redefine traditional enterprise collaboration boundaries, supporting the vision of any-to-any collaboration.

As its primary features and benefits, Cisco Expressway Series:

- Offers proven and highly secure firewall-traversal technology to extend your organizational reach
- Helps enable business-to-business and business-to-consumer connections
- Provides session-based access to comprehensive collaboration for remote workers, without the need for a separate VPN client

- Supports a wide range of devices with Cisco Jabber for smartphones, tablets, and desktops
- Complements bring-your-own-device (BYOD) strategies and policies for remote and mobile workers

For additional information about Cisco Expressway Series, go to:

<http://www.cisco.com/en/US/products/ps13435/index.html>

Cisco TelePresence Video Communication Server



Note

Collaboration System Release 10.0(1) currently supports the Collaboration Edge infrastructure that you will be able to utilize when Collaboration Edge-enabled endpoints and clients become available in early 2014.

The Cisco TelePresence® Video Communication Server Control (Cisco VCS Control and Cisco VCS Expressway) enables business-to-business video collaboration, improves the productivity of remote and home-based workers, and enables service providers to provide video communications to customers. The application performs securely through standards-based and secure firewall traversal for all Session Initiation Protocol (SIP) and H.323 devices. VCS Control simplifies session management and control of telepresence conferences.

Features of the Cisco VCS include the following:

- Firewall traversal services for SIP and H.323 devices
- SIP-H.323 and IPv4-IPv6 Interworking
- Interoperability with 3rd party solutions
- Registration of traversal-enabled endpoints
- Traversal Using Relays for NAT (TURN) relay services

For more information about the Cisco VCS Control, go to:

<http://www.cisco.com/en/US/products/ps11337/index.html> and http://www.cisco.com/en/US/prod/collateral/ps7060/ps11305/ps11315/ps11337/data_sheet_c78-626491.html

For more information about Cisco VCS Expressway, go to:

http://www.cisco.com/en/US/prod/collateral/ps7060/ps11305/ps11315/ps11337/data_sheet_c78-697073.html

Cisco Business Edition

The Cisco Business Edition (Cisco BE) is the call-processing, mobility, and messaging component of Cisco Collaboration Systems Release. Cisco BE includes the features and capabilities of Cisco Unified Communications Manager, Cisco Unified Mobility, and Cisco Unity Connection co-resident on a single, low-cost Media Convergence Server.

Cisco BE supports corporate directory synchronization. This feature allows Cisco BE to synchronize directly with an existing corporate directory using LDAP integration. With this feature, administrators can provision users automatically from the corporate directory into the Cisco BE database, thus allowing administrators to maintain a single directory. This method avoids having to add, remove, or modify core user information manually in Cisco BE each time a change occurs in the corporate directory. This feature also helps the end-users authenticate using single sign-on functionality, thus reducing the number of passwords across the network.

IT benefits

- Speed first-time setup through country-specific localized dial plans
- Simple management interface facilitates quick moves, additions, and changes
- Localized interface in major languages to reduce training time
- Efficient purpose-built equipment that combines a server and voice gateway
- Point-to-point video
- Easy to select multiple interfaces including integrated ISDN primary rate interface (PRI), SIP trunks, and analog gateway

Cisco Business Edition 6000

- Simplifies the transition from outdated telephony systems to unified communications
- Interoperability to link multiple third-party H.323 or SIP telepresence and video endpoints together transparently
- High-Availability provided through optional server redundancy and Survivable Branch (SRST)
- Scalability allows a smooth and fast migration from outdated telephony
- Expandable and flexible architecture

For additional information about Cisco Business Edition 6000, go to:

<http://www.cisco.com/en/US/products/ps11369/index.html>

Cisco Unified Communications Manager Session Management Edition

Cisco Unified Communications Manager Session Management Edition integrates private branch exchanges from multiple vendors into one network and centralizes applications, trunking, dial plan, and policy control. It reduces communication tolls, cuts administrative overhead, and supports easier migration to a full IP telephony environment.

Cisco Unified Communications Manager Session Management Edition extends collaboration applications such as unified messaging, mobility, TelePresence, social networking, and web applications (using Web 2.0 interfaces) to every user on the network. Unified applications are deployed at the network core, so users on multivendor PBXs can use centrally deployed applications.

Cisco Unified Communications Manager Session Management Edition supports the following features:

- H.323 Annex M1 intercluster trunks
- SIP intercluster trunks
- SIP trunks
- H.323 trunks
- MGCP trunks
- Encrypted calls
- Multivendor SIP and Q.SIG interoperability Siemens, Avaya, and Microsoft
- SIP trunk with Cisco Unified Border Element

- Voice, video, and Fax calls
- Support of dual stack (IPv4 or IPv6) SIP trunk and SIP GW

For additional information about Cisco Unified Communications Manager Session Management Edition, go to:

<http://www.cisco.com/en/US/products/ps10661/index.html>

Cisco Unified Communications Manager Express

Cisco Unified Communications Manager Express is an entry-level call processing system that provides a wide range of IP telephony features for small to medium-sized businesses and autonomous small enterprise branch offices with up to 450 phones.

All files and configurations for IP phones are stored internally on a single Cisco integrated services router or on the new Unified Communications 500 Series router for a cost-effective, highly reliable, IP communications solution. Cisco Unified Communications Manager Express helps ensure investment protection and offers scalability because all hardware and software is fully compatible with Cisco Unified Communications Manager and Cisco Unified Survivable Remote Site Telephony.

Cisco Unified Communications Manager Express provides key system and PBX modes of operation on a single network and several industry-unique features, including:

- Call processing for local IP and analog phones attached to a Cisco router
- Support for analog phones in SCCP mode, Session Initiation Protocol (SIP) line side support with supported Cisco Unified IP phones, and a robust set of PSTN interfaces
- Call routing over a WAN with calling party name and number information, and compressed voice for reduced WAN bandwidth utilization
- Support for peripheral services such as voicemail, automated attendant, and IP-based XML and Telephony Application Programming Interface (TAPI) applications
- Interoperability with Cisco Unified Call Manager and the Cisco Unity Express
- A simple software configuration change on the Cisco router converts system to a highly available survivable telephony gateway with support for more features than SRST for a remote site in a centralized Cisco Unified Communications Manager deployment

System management features in the Cisco Unified Communications Manager Express environment enable you to:

- Accomplish initial installation of Cisco Unified Communications Manager Express easily using the Quick Configuration Tool (QCT) that prompts for answers to pertinent questions
- Perform everyday administration and remote troubleshooting using the Cisco IOS software command-line interface (CLI)
- Add users, phones, and extensions or make changes for system and integrated voicemail using a single web-based GUI designed for nontechnical staff
- Monitor deployments with Cisco Monitor Manager and Cisco Monitor Director
- Use Cisco Configuration Agent (CCA) for configuration tasks

For additional information about Cisco Unified Communications Manager Express, go to:

<http://www.cisco.com/en/US/products/sw/voicesw/ps4625/index.html>

Cisco Unified Survivable Remote Site Telephony

Cisco Unified Communications Manager with Cisco Unified Survivable Remote Site Telephony (Unified SRST) allows companies to extend high-availability IP telephony to their remote branch offices with a cost-effective solution that is easy to deploy, administer, and maintain. The SRST capability is embedded in the Cisco IOS Software that runs on the Cisco integrated services routers.

SRST software automatically detects a connectivity failure between Cisco Unified Communications Manager and IP phones at a branch office. SRST initiates a process to automatically configure the Cisco integrated services routers to provide call-processing backup redundancy for the IP phones and PSTN access in the affected office. The router provides essential call-processing services for the duration of the failure, helping ensure that critical phone capabilities are operational. Upon restoration of the connectivity to the Cisco Unified Communications Manager, the system automatically shifts call-processing functions back to the primary Cisco Unified Communications Manager cluster.

For additional information about Cisco Unified Communications Manager with Cisco Unified Survivable Remote Site Telephony, go to:

<http://www.cisco.com/en/US/products/sw/voicesw/ps2169/index.html>

Contact Center

Cisco Unified Contact Center Express

Cisco® Unified Contact Center Express meets the needs of midmarket and enterprise branch offices or companies that need easy-to-deploy, easy-to-use, secure, virtual, highly available, and sophisticated customer interaction management for up to 400 agents.

Cisco Unified Contact Center Express support for powerful, agent-based service as well as fully integrated self-service applications results in reduced business costs and improved customer response by providing sophisticated and distributed automatic call distributor (ACD), interactive voice response (IVR), computer telephony integration (CTI), and agent and desktop services while offering the flexibility to scale to larger, more demanding environments. Cisco Unified Contact Center Express helps ensure your business rules for inbound and outbound voice, email, and web chat; and customer interaction management helps ensure that each contact is delivered to the right agent the first time.

Cisco Unified Contact Center Express is provided in three packages: Standard, Enhanced, and Premium, to better match product functions with your customer contact interaction management requirements. All Cisco Unified Contact Center Express products are tightly integrated with Cisco Unified Communications Manager and Cisco Business Edition 6000.

For additional information about Cisco Unified Contact Center Express, go to:

<http://www.cisco.com/en/US/products/sw/custcosw/ps1846/index.html>

Cisco Unified Contact Center Enterprise

Cisco Unified Contact Center Enterprise segments customers, monitors resource availability, and delivers each contact to the most appropriate resource in the enterprise. The software profiles each customer contact using related data, such as dialed number and calling line ID, caller-entered digits, data submitted on a web

form, and information obtained from a customer database lookup. Simultaneously, the system monitors the resources available in the contact center to meet customer needs, including agent skills and availability, interactive-voice-response (IVR) status, and queue lengths.

This combination of customer and contact center data is processed through user-defined routing scripts that graphically reflect your company's business rules, enabling Cisco Unified Contact Center Enterprise to route each contact to the right place. Wherever an agent is based, the system delivers a rich set of call-event and customer-provided data as a contact arrives, personalizing service and increasing efficiency. Throughout the process, distributed fault tolerance helps ensure uninterrupted operation, and rich reporting provides the business intelligence necessary to effectively run your contact center.

Packaged Deployment Models

Cisco also offers a pre-designed and bounded deployment model of Cisco Unified Contact Center Enterprise called Packaged Contact Center Enterprise (Packaged CCE). Customers who fit within the boundaries of the Packaged CCE solution can enjoy the advantages of the simplified management interface, smaller hardware footprint, and reduced time to install, and benefit from the rich features of Cisco Unified Contact Center Enterprise and Cisco Unified Customer Voice Portal. The solution comes packaged with Cisco Unified Intelligence Center for comprehensive reporting and Cisco Finesse® desktop software for an enhanced, next-generation desktop experience.

For more information about Cisco Unified Contact Center Enterprise, go to:

<http://www.cisco.com/en/US/products/sw/custcosw/ps1844/index.html>

Cisco Unified Customer Voice Portal

Cisco Unified Customer Voice Portal (Unified CVP) combines open-standards support for speech with intelligent application development and industry-best call control to deliver personalized self-service to callers—either as a standalone interactive-voice-response (IVR) system or transparently integrated with a contact center.

Customers can use touchtone signals or their own voice to perform IVR self-service. If they request live agent assistance, Unified CVP can place a call in queue until an appropriate agent is available and then transfer information collected by the IVR application directly to the agent along with the call itself to provide a seamless customer service experience. Unified CVP offers hosted IVR capabilities, and it can support video interactions.

For additional information about Cisco Unified Customer Voice Portal, go to:

<http://www.cisco.com/en/US/products/sw/custcosw/ps1006/index.html>

Cisco Unified Intelligence Center

Cisco Unified Intelligence Center is a web-based reporting application that provides real-time and historical reporting in an easy-to-use, wizard-based application for Cisco Contact Center products. It allows contact center supervisors and business users to report on the details of every contact across all channels in the contact center from a single interface.

Cisco Unified Intelligence Center allows customers to extend the boundaries of traditional contact center reporting to an information portal where data can be easily integrated and shared throughout the organization.

For additional information about Cisco Unified Intelligence Center, go to:

<http://www.cisco.com/en/US/products/ps9755/index.html>

Cisco Finesse

The Cisco Finesse® desktop is the next-generation agent and supervisor desktop for Cisco® Customer Collaboration solutions, providing easy access to the applications and information required by your customer service organization through a customizable web-based interface. It offers your customer care representatives an intuitive, easy-to-use desktop design to help improve their performance and satisfaction, in turn enhancing their ability to provide quality customer service.

For IT professionals, the Cisco Finesse desktop offers smooth integration with the Cisco Contact Center product portfolio. Standards-compliant, it offers low-cost customization of the agent and supervisor desktops.

For more information about Cisco Finesse, go to:

http://www.cisco.com/en/US/products/ps11324/prod_literature.html

Cisco MediaSense

Cisco® MediaSense (MediaSense) is an open-standards, network-based platform that supports recording, playback, live streaming, and storage of multimedia, with rich recording metadata. It provides an efficient, cost-effective platform for capturing business conversations, including customer service interactions.

Businesses and organizations need to record calls for a variety of reasons, including regulatory compliance, quality management, legal discovery, employee education, business intelligence, and customer service optimization. Unfortunately, traditional recording solutions can make recording difficult and expensive to implement. MediaSense solves these challenges by recording audio and video on the network, simplifying the architecture, lowering costs, and providing optimum scalability across a variety of scenarios. MediaSense offers built-in search and play of recordings, and you can easily use it in customer service interactions through its integration with the Cisco Finesse® Agent Desktop.

In addition to recording and playback, MediaSense provides media streaming on the network, supporting Video on Hold (VoH) with Cisco Unified Communications Manager (Unified CM), Video in Queue (ViQ) with Cisco Remote Expert, video greeting with Cisco Unity® Connection, and live monitoring of customer service calls.

The network-based architecture of MediaSense allows for quick availability of the captured media for different applications, regardless of location, through simple application programming interfaces (APIs). These interfaces implement open web standards, enabling a rich ecosystem of applications from Cisco technology partners, including quality management (QM) and advanced quality management (AQM) solutions.

For additional information about Cisco MediaSense, go to:

<http://www.cisco.com/en/US/products/ps11389/index.html>

Cisco SocialMiner

Cisco SocialMiner is a social media customer care solution that enables your company to proactively respond to customers and prospects communicating through public social media networks such as Twitter and Facebook or other public forum or blogging sites. By providing social media monitoring, queuing, and workflow to organize customer posts on social media networks and deliver them to your customer care team, your company can respond to customers in real time through the same social network they are using to communicate.

For more information about Cisco SocialMiner, go to:

<http://www.cisco.com/en/US/products/ps11349/index.html>

Cisco Agent Desktop

Cisco Agent Desktop is a computer telephony integration (CTI) solution for single- and multisite IP-based contact centers. It is easy to deploy, configure, and manage. Powerful tools help increase agent and supervisor productivity, improve customer satisfaction, and reduce costs. An intuitive GUI decreases IT dependency and simplifies customization, maintenance, and change management. Transparent integration with Cisco Unified Contact Center helps you easily deploy CTI capabilities at new locations as customer contact operations expand.

For additional information about Cisco Agent Desktop, go to:

<http://www.cisco.com/en/US/products/sw/custcosw/ps427/index.html>

Cisco Computer Telephony Integration

The Cisco Computer Telephony Integration (CTI) Option enables Cisco Unified Intelligent Contact Management (ICM) Enterprise and Cisco Unified Contact Center Enterprise to provide a complete network-to-desktop strategy, including comprehensive functionality at individual workstations.

For additional information about Cisco Computer Telephony Integration, go to:

<http://www.cisco.com/en/US/products/sw/custcosw/ps14/index.html>

Server Applications

Cisco Unified Communications Manager IM and Presence Service

Cisco Unified Communications Manager IM and Presence Service (IM and Presence Service) enables the deployment of Session Initiation Protocol (SIP) or eXtensible Messaging and Presence Protocol (XMPP) technology to support unified communication in an enterprise environment. SIP enhances the voice network by providing a core set of behaviors for session establishment and control that can be applied in a wide array of features and services. In addition to core SIP support, IM and Presence Service uses SIMPLE (SIP for Instant Messaging and Presence Leveraging Extensions) technology to support instant messaging (IM) and presence. XMPP provides real-time communication of applications including instant messaging, presence, multi-party chat, voice and video calls, and collaboration.

The presence engine collects user presence information (such as busy, idle, away, or available status) and user capabilities (such as the ability to support voice, video, instant messaging, and web collaboration), and compiles the data in a repository that can facilitate aggregate presence information from multiple resources for each user. This repository is accessed by the applications and features that each user employs. A user can apply unique user rules and privacy to ensure that only authorized applications and users have access to presence information.

IM and Presence Service integrates with various desktop clients and applications. It enables functions such as click-to-dial and phone control as well as voice, video, and web collaboration. In addition, IM and Presence Service provides a core IM service for Cisco Unified IP Phones that are connected to Cisco Unified Communications Manager (Unified Communications Manager). IM and Presence Service also supports interoperability with Microsoft and IBM Lotus, enabling specific functions to work with Cisco Unified IP Phones supported on Unified Communications Manager.

The SIP/SIMPLE and XMPP interfaces on IM and Presence Service make it one of the most open platforms available and can provide value add presence and call control capabilities to any standards based application or service. This native dual protocol support allows for borderless business-to-business communication through the use of federation, which facilitates the exchange of presence and IM with any business that uses one of the major enterprise IM solutions such as Webex Connect, Microsoft or IBM Lotus Sametime, as well as public IM solutions such as GoogleTalk or AOL.

For additional information about Cisco Unified Communications Manager IM and Presence Service, go to:

<http://www.cisco.com/en/US/products/ps6837/index.html>

Cisco Unified SIP Proxy

The Cisco Unified SIP Proxy (USP) is a high-performance, highly available Session Initiation Protocol (SIP) server for centralized routing and SIP signaling normalization. By forwarding requests between call-control domains, Cisco USP provides the means for routing sessions within enterprise and service provider networks.

The Cisco Unified SIP Proxy brings the following benefits to a network using Unified Communications Manager SIP trunks:

- Aggregation and routing—The Unified SIP Proxy is capable of connecting several SIP servers to each other without each of the servers connecting to every other one in a full-mesh configuration
- Scalability—The Unified SIP Proxy can be used to terminate calls to and from the enterprise and IP-PSTN service providers. The proxy, in turn, distributes the calls across a pool of Unified Border Elements. More Unified Border Elements may be added to increase capacity.
- Availability and load balancing—The Unified SIP Proxy distributes calls over the pool of available Unified Border Elements and monitors the status of each Unified Border Element to ensure reliable call completion.
- Message normalization—The Unified SIP Proxy serves to hide differences in SIP protocol messaging by providing the means to manipulate headers and contents of the messages as they pass through the Unified SIP Proxy.

Cisco USP simplifies large deployments of:

- Cisco Unified Communications Manager
- Cisco Unified Communications Manager Express
- Cisco Unified Border Element
- Cisco Unified Customer Voice Portal
- Other Cisco and multivendor products

For additional information about all Cisco Unified SIP Proxy servers, go to:

<http://www.cisco.com/en/US/products/ps10140/index.html>

Cisco Emergency Responder

Cisco Emergency Responder enhances the existing emergency 9-1-1 functionality offered by Unified Communications Manager. It ensures that the Unified Communications Manager sends emergency calls to the appropriate Public Safety Answering Point (PSAP) for the caller's location, and that the PSAP can identify

the caller's location and return the call if necessary. In addition, the system automatically tracks and updates equipment moves and changes. Deploying this capability helps ensure more effective compliance with legal or regulatory obligations, reducing the risk of liability related to emergency calls as a result.

Coupled with Unified Communications Manager, Cisco Emergency Responder surpasses traditional PBX capabilities by introducing user or phone moves and changes at no cost, and dynamic tracking of user and phone locations for emergency 9-1-1 safety and security purposes.

Cisco Emergency Responder helps Cisco Unified Communications Manager customers comply more effectively with their legal or regulatory obligations and reduce their risk of liability related to emergency calls. It includes these key features:

- Real-time location-tracking database and enhanced routing capabilities
- Supports automatic notification of customer security personnel when an emergency call is in progress and provides the caller's location
- Requires no administrative support for moving phones or staff from one location to another

For additional information about Cisco Emergency Responder, go to:

<http://www.cisco.com/en/US/products/sw/voicesw/ps842/index.html>

Cisco Unified Attendant Consoles

Cisco Unified Communications Manager Attendant Consoles (Cisco UACs) give operators and receptionists superior call routing and distribution tools to deliver positive experiences to your callers. Cisco UACs can help you ensure all calls are handled efficiently and professionally. Cisco UACs pair with Cisco Unified IP Phones, and are supported on Cisco Unified Communications Manager and Cisco Business Edition 6000 platforms.

Features of Cisco UACs include:

- Call control that allows users to answer, transfer, park, hold, place calls, and more—directly from the Cisco Unified Attendant Console, which controls a Cisco Unified IP Phone
- A built-in corporate directory that synchronizes with Cisco Unified Communications Manager's end-user directory, or with Active Directory in the Cisco UACs Advanced version
- Speed dials to create frequently-dialed contacts that may or may not already reside in the corporate directory
- A busy lamp field and presence allows users to easily see a contact's availability from the activity of their phone and their presence state
- Cisco UACs work with Cisco Unified Communications Manager Versions 7.1(5) through 10.0(1) that gives you platform upgrade flexibility to get users up and running quickly, and lets you upgrade the Cisco Unified Communications Manager version at any time

For more information about the Cisco Unified Attendant Consoles, go to:

<http://www.cisco.com/en/US/products/ps7282/index.html>

Cisco TelePresence Content Server

Easily share knowledge using the Cisco TelePresence Content Server, which records Cisco TelePresence and third-party videoconferencing meetings and multimedia presentations for live broadcast and on-demand access.

The Cisco TelePresence Content Server simplifies the process of capturing and sharing many types of content throughout your organization, including:

- Lectures
- Training sessions
- Meetings
- Any critical events

For more information about the Cisco TelePresence Content Server, go to:

<http://www.cisco.com/en/US/products/ps11347/index.html>

Conferencing

Cisco TelePresence Management Suite

Cisco TelePresence® Management Suite (Cisco TMS) provides scheduling, control, and management of telepresence conferencing and media services infrastructure and endpoints, enabling enterprises to improve productivity, reduce costs, and maximize return on their telepresence investments. Cisco TMS offers:

- Scalable provisioning—Cisco TMS supports up to 5000 direct-managed devices featuring distributed, redundant architecture. Cisco TMS with a Provisioning Extension supports up to 100,000 telepresence users, endpoints, and soft clients across disparate customer locations with the Cisco TelePresence Video Communication Server (Cisco VCS) clustering technology.
- Centralized administration—Cisco TMS automates and simplifies the management of telepresence meetings and telepresence infrastructure resources, reducing your total cost of ownership.
- Flexible scheduling—Cisco TMS makes scheduling telepresence meetings more accessible with a range of tools including a simple and intuitive Smart Scheduler option in Cisco TelePresence Management Suite Provisioning Extension for Microsoft Exchange integration, and advanced booking capabilities for experienced administrators.
- Natural user experience—Get quick, easy conference attendance across a wide range of TelePresence endpoints and Jabber clients, with 'One Button to Push' or 'One Click to Join'.

For more information about the Cisco TelePresence Management Suite, go to:

<http://www-author.cisco.com/content/en/us/products/conferencing/telepresence-management-suite-tms/index.html>

Cisco TelePresence Management Suite Provisioning Extension

Cisco TelePresence Management Suite Provisioning Extension Version 1.1 enables large-scale provisioning of users and endpoints through Cisco TelePresence Video Communication Server. It provides a backend and portal for FindMe and Smart Scheduler, a user-friendly scheduling interface for telepresence resources.

For more information see Cisco TelePresence Management Suite Provisioning Extension Version 1.1 Software Release Notes:

http://www.cisco.com/c/dam/en/us/td/docs/telepresence/infrastructure/tmspe/release_note/Cisco_TMSPE_release_notes_1-1.pdf

Cisco TelePresence Management Suite Extension for Microsoft Exchange

Cisco TelePresence Management Suite Extension for Microsoft Exchange integrates Cisco TelePresence Management Suite with Microsoft Exchange 2007 and 2010, allowing organizers to book video conference resources through their Outlook clients.

For more information see Cisco TelePresence Management Suite Extension for Microsoft Exchange Version 3.1.3 Software Release Notes:

http://www.cisco.com/c/dam/en/us/td/docs/telepresence/infrastructure/tmsxe/release_note/Cisco-TMSXE-release-notes-3-1-3.pdf

Pervasive Video Conferencing

Cisco's Pervasive Conferencing solution enables video conferences for your entire enterprise. It optimizes conference resources, maximizing the number of people who can join a conference and the number of conferences that can be supported within an organization. This enables pervasive conferencing throughout your organization, increasing the accessibility of multiparty video conferencing capabilities.

The Cisco® Personal Multiparty 4-way calling solution allows Cisco Unified Communications Manager customers to extend their capability to include multiparty video collaboration. This capability is now available within the Cisco Unified Workspace Licensing Professional license package or through a la carte licensing. For each license selected, one named host is entitled to host multiparty meetings with up to three more parties, using a personalized contact address.

For more information about Cisco Pervasive Conferencing, go to:

<http://www.cisco.com/en/US/netsol/ns1229/index.html>

For more information about Cisco Personal Multiparty, go to:

<http://www.cisco.com/en/US/solutions/collateral/ns1007/ns1229/at-a-glance-c45-729835.pdf>

Cisco TelePresence Server

The Cisco TelePresence Server provides high-quality, standards-based, multi-party conferencing for the mobile or desktop user and the immersive room meeting participant. It is a key component of the Cisco Pervasive Conferencing architecture and compatible with a range of hardware platforms. The Cisco TelePresence Server is a versatile, highly scalable solution for mid-market and larger enterprise customers.

Features and capabilities of Cisco TelePresence Server include:

- Choice of experiences, from 360p to full high-definition (FullHD) multiparty conferencing and collaboration

- Ability to join meetings easily from WebEx Meeting Center clients or telepresence systems
- Compatible with standards-based, third-party vendors' endpoints for multipoint calls
- Supports Cisco ActivePresence and Cisco ClearPath to enhance the user experience

Cisco TelePresence Server is compatible with a range of hardware platforms, enabling you to select the solution most suited to your needs:

- The Cisco TelePresence Server on virtual machine, which runs on the Cisco Unified Computing System™ (Cisco UCS®) or third-party specification-based server platforms, offers a virtualized solution
- The Cisco TelePresence Server on the Multiparty Media 310 and Cisco Multiparty Media 320 entry-level appliance solutions which can be stacked to grow with your business video usage over the long term
- The Cisco TelePresence Server on the MSE 8710 (Cisco MSE 8710) is a chassis-based platform that is ideal for large enterprises and service providers requiring a high-availability and highly scalable solution. Scalability is achieved through clustering up to four Cisco MSE 8710 blades as a single unit
- The Cisco TelePresence Server can also run on the Cisco MSE 8510 and Cisco TelePresence MCU 5300 (MCU 5300) platform

For more information about the Cisco TelePresence Server, go to:

<http://www.cisco.com/en/US/products/ps11339/index.html>

Cisco TelePresence Conductor

Cisco TelePresence Conductor helps ensure simple, reliable, and efficient multiparty telepresence and collaborative conferencing. It simplifies multiparty video communications, orchestrating the different resources needed for each conference as required.

Cisco TelePresence Conductor:

- Supports a wide range of Cisco TelePresence multipoint control units (MCUs) and TelePresence Servers
- Efficiently scales from small businesses to enterprises, supporting expansion as utilization increases
- Supports service differentiation, allowing administrators to define specific classes of service for conference attendees
- Allows conferences to dynamically grow and even exceed the capacity of individual MCUs

For more information about the Cisco Telepresence Conductor, go to:

<http://www.cisco.com/en/US/products/ps11775/index.html>

Cisco TelePresence MCU Series

Cisco TelePresence MCU 4500 Series

The Cisco TelePresence MCU 4500 Series is a high-definition multimedia conferencing bridge. It delivers superior video and voice with an easy-to-use, versatile management interface.

For more information about Cisco TelePresence MCU 4500 Series, go to <http://www.cisco.com/en/US/products/ps11341/index.html>.

Cisco TelePresence MCU 5300 Series

The Cisco TelePresence MCU 5300 Series is a range of state-of-the-art multipoint control units (MCU) that can grow with your video usage over the long term. The MCU 5300 Series offers a low entry point and a broad range of products for mid-sized and smaller businesses.

For more information about Cisco TelePresence MCU 5300, go to <http://www.cisco.com/en/US/products/ps12283/index.html>.

Cisco TelePresence MCU MSE 8510

The Cisco TelePresence MCU MSE 8510 is a flexible, highly scalable, chassis-based multimedia conferencing bridge with a versatile, easy to use management interface. This fault-tolerant solution is ideal for large enterprises and service providers who want to differentiate themselves by offering superb videoconferencing services.

For more information about Cisco TelePresence MCU MSE 8510, go to <http://www.cisco.com/en/US/products/ps11455/index.html>.

For more information about all collaborative conferencing products, go to:

<http://www.cisco.com/en/US/products/ps10352/index.html>.

Cisco WebEx

Cisco WebEx web applications let you connect and meet with anyone from anywhere, at anytime on any device. WebEx web conferencing applications support multiple user experiences, such as collaborative meetings, training sessions, large events, to remote support. Each application offers an integrated and easy-to-use meeting interface that incorporates audio, HD video, and real-time content sharing. WebEx meetings are supported on multiple platforms and on mobile devices including the Android, iPhone, iPad, and Blackberry. WebEx applications also integrate with a variety of Cisco and third-party platforms and services such as TelePresence, video, audio, and more.

Cisco WebEx products include:

- [Cisco WebEx Meetings](#) incorporates audio, high-definition (HD) video, and real-time content sharing. It helps organizers and participants streamline the entire meeting process and reduce email clutter with highly secure online spaces for storing, accessing, and updating activities and information related to each meeting. Cisco WebEx Meetings is delivered through the Cisco WebEx Cloud, a highly secure and available delivery platform.
- [Cisco WebEx Telepresence](#) is an affordable, reliable, and highly secure video collaboration experience delivered through the cloud. With Cisco WebEx Telepresence, you can use our best-in-class telepresence endpoints in a matter of minutes over the Internet. You can also add video calling capabilities to your PCs and Macs. For additional information, go to:
- [Cisco WebEx Connect IM](#) lets you communicate and collaborate more securely and effectively with colleagues, partners, and customers. With Cisco WebEx Connect IM, you can place, receive, and manage calls through your computer when you're working remotely, or manage your Cisco IP phone from WebEx Connect in the office. This requires Cisco Unified Communications Manager 6.1.3 or a later version and the Cisco Unified Communications Integration plug-in for WebEx Connect IM.
- [Cisco WebEx Social](#) is an enterprise collaboration platform that combines the power of social networking, content creation, and real-time communications. Easier collaboration across departments and geographies allows employees to quickly connect with the people and resources they need to get work done.

- [Cisco WebEx Event Center](#) helps you create webinars and web events, manage event invitations and follow-ups, evaluate, track and cultivate leads for your sales pipeline, and capture attendee information for sales and marketing databases.

For additional information about all Cisco WebEx products, go to:

<http://www.cisco.com/en/US/products/ps10352/products.html>

Cisco WebEx Meetings Server

Cisco WebEx Meetings Server is a highly secure, fully virtualized, behind-the-firewall conferencing solution that combines audio, video, and web conferencing in a single solution. With Cisco WebEx Meetings Server, you can respond to organizational requirements for higher productivity, employee-led innovation, support for more flexible work styles, and dynamic collaboration.

Cisco WebEx Meetings Server also helps you comply with strict security or data privacy requirements, and supports location where Internet access is regulated or restricted. It also allows you to manage your conferencing solution as a capital expenditure instead of an operational expenditure.

Cisco WebEx Meetings Server is optimized for the bring-your-own-device (BYOD) enterprise, so users can sign in more securely, host, and join meetings from mobile devices or Internet-connected PCs without requiring VPN access to the corporate network.

Cisco WebEx Meetings Server is a virtualized, software-based solution that runs on Cisco UCS x86 Servers and VMware. The solution uses virtual appliance technology for rapid deployment of services to users. There are two options for helping users to securely access WebEx conferences without going through a VPN:

- Deploy reverse proxy (edge servers) in the enterprise perimeter (DMZ)
- Deploy reverse proxy (edge servers) behind your internal firewall, thereby eliminating all enterprise perimeter (DMZ) components and related security and InfoSec concerns

For additional information, go to:

<http://www.cisco.com/en/US/products/ps12732/index.html>

Cisco Unified MeetingPlace

Cisco Unified MeetingPlace provides on-premises audio conferencing. Used in conjunction with WebEx[®] web conferencing, it promotes effective collaboration to people to meet anytime, from anywhere, without the expense and inefficiencies of traveling. You can expand your organization's reach, improve its operational effectiveness, and speed decision making by integrating audio, video, and web collaboration into everyday communications and reducing distance as a constraint to deploying expertise.

For additional information, go to:

<http://www.cisco.com/en/US/products/sw/ps5664/ps5669/index.html>

Voicemail and Unified Messaging

Cisco Unity Connection

Cisco Unity Connection is the voice and unified messaging component of the Cisco Collaboration Systems. With Cisco Unity Connection, you can access and manage voice messages in a variety of ways, using your email inbox, web browser, Cisco Jabber®, Cisco Unified IP Phone, smartphone, tablet, and more. Cisco Unity Connection also provides robust speech-recognition features allowing you to manage your voice messages hands and eyes free.

Cisco Unity Connection integrates with Cisco Unified Communication Manager, Cisco Unified Communication Manager Session Manager Edition, Cisco Unified Communication Manager Express, and various legacy PBX models simultaneously to support a variety of deployment models and configurations.

Cisco Unity Connection enhancements include:

- Access to Voicemail Anytime, Anywhere
From an IP phone, mobile phone, web browser, email client, or a desktop client like Cisco Jabber. You can also use Cisco SpeechView to have your voice messages transcribed and delivered to your email inbox.
- Accelerated Collaboration
Respond quickly to colleagues and partners through speech-activated tools. Easily prioritize and manage messages, access meetings on your calendar, and connect to colleagues by speaking their names.
- Reduced Total Cost of Ownership (TCO)
Simplify deployment efforts with the Cisco Unity Connection solution on a Linux appliance. Enjoy the flexibility to deliver unified messaging, integrated messaging, or simply voicemail. Cisco Unity Connection works in a variety of messaging environments using standard protocols.
- Secured Messages
Security is a concern for most organizations, and mandatory for others. Cisco Unity Connection keeps your messages highly secure so they cannot be played by someone outside your organization.
- Single Sign On (SSO) for System Administrators
System administrators need only sign in once to access Cisco Unity Connection, Cisco Unified Collaboration, and Prime Collaboration

For additional information about Cisco Unity Connection, go to:

<http://www.cisco.com/en/US/products/ps6509/index.html>

Cisco Unity Express

Cisco Unity Express (Unity Express) provides integrated, entry-level, voice mail and automated attendant services for small and medium offices or branches in Cisco Unified Communications Manager (Unified Communications Manager) or Cisco Unified Communications Manager Express (Unified CME) environments. In Unified Communications Manager environments, Unity Express provides local storage and processing of voice mail and automated attendant services, alleviating WAN bandwidth and QOS concerns for the branch office. Combining Unified CME with Unity Express provides a centralized voice mail solution for up to 10

Unified CME sites and a core set of phone features for everyday business needs while offering a variety of telephony feature sets that have been provided by traditional key systems and hybrid PBXs.

Cisco Unity Express gives your organization a quick, convenient way to manage voicemail, auto attendant, and interactive voice response (IVR).

Cisco Unity Express provides:

- Affordable voicemail and greeting services
- Voice mailboxes for up to 500 users
- Intuitive telephone prompts and a web-based interface
- Ability to manage voicemail using a Cisco Unified IP Phone display, your web browser, or your email client
- Time-card data management with TimeCardView

For additional information, go to:

<http://www.cisco.com/en/US/products/sw/voicesw/ps5520/index.html>

Devices (Endpoints)

Cisco IP Phones

Cisco IP Phones are full-featured telephones that provide voice communication over an IP network. They function much like digital business phones, allowing you to place and receive phone calls and to access features such as mute, hold, transfer, speed dial, call forward, and more. In addition, because Cisco IP Phones are connected to your data network, they offer enhanced IP telephony features, including access to network information and services, and customizable features and services. Many phone models also support security features that include file authentication, device authentication, signaling encryption, and media encryption.

Cisco Collaboration Systems supports these Cisco IP Phone Series:

- Cisco Unified SIP Phone 3905

The Cisco Unified SIP Phone 3905 allows you to move from analog phones to cost-effective IP phones, and gain access to the comprehensive suite of capabilities supported by Cisco Unified Communications Manager.

For more information about the Cisco Unified SIP Phone 3905, go to:

<http://www.cisco.com/en/US/products/ps11542/index.html>

- Business Communications Phones: Cisco Unified IP Phone 6900 Series

The Cisco Unified IP Phone 6900 Series is an innovative portfolio of IP phones, delivering cost-effective business-grade voice communication services to customers worldwide. The Cisco Unified IP Phone 6900 Series offers personalization options, including the choice of two colors and two handset weights. These devices are also energy efficient, consuming less power in support of customer green initiatives. Different Cisco Unified IP Phone 6900 Series models are available with and without displays.

For more information about the Cisco Unified IP Phone 6900 Series, go to:

<http://www.cisco.com/en/US/products/ps10326/index.html>

- Cisco IP Phone 7800 Series

Cisco IP Phones are designed to improve productivity, foster collaboration, and reduce operating expenses with simplified, fully featured, and cost-effective communications that deliver a superior user experience. These IP phones leverage the power and flexibility of SIP-based VoIP networks to deliver breakthrough HD voice quality and advanced features that make business calls more efficient and productive.

For more information about the Cisco IP Phone 7800 Series, go to:

<http://www.cisco.com/en/US/products/ps13220/index.html>

- Advanced Business Phones: Cisco Unified IP Phone 7900 Series

The Cisco Unified IP Phones 7900 series provides IP phones with color liquid crystal display (LCD), including dynamic soft keys for call features and functions. This series also offers support for information services, including Extensible Markup Language (XML) capabilities to extend IP phone systems. The capability to customize XML-based services allows users access a variety of information, such as stock quotes, employee directories, and web content.

For more information about the Cisco Unified IP Phone 7900 Series, go to:

<http://www.cisco.com/en/US/products/hw/phones/ps379/index.html>

- Cisco Unified IP Phone 8800 Series

The Cisco Unified IP Phone 8800 Series delivers highly secure, comprehensive, and mission-critical unified communications features, combined with full-duplex, wideband audio performance. These phones greatly improve collaboration and business results for mid-size to enterprise businesses.

For more information about the Cisco Unified IP Phone 8800 Series, go to:

<http://www.cisco.com/en/US/products/ps12965/index.html>

- Cisco Unified IP Conference Phone 8831

The Cisco Unified IP Conference Phone 8831 delivers highly secure, comprehensive, and mission-critical unified communications, with wideband, full-duplex audio performance and flexible accessory options. It is ideal for conference rooms and executive offices within midsize and enterprise businesses supported by Cisco Unified Communications Manager or Cisco Business Edition 6000.

For more information about the Cisco Unified IP Conference Phone 8831, go to:

<http://www.cisco.com/en/US/products/ps12969/index.html>

- Advanced Professional Media Phones: Cisco Unified IP Phone 8900 Series

The Cisco Unified IP Phone 8900 series phones accelerate business success by delivering a high-performance, rich multimedia communications experience. This series offers a broad portfolio of XML and MIDlet applications that can help a company transform its business processes, reduce operating and administration costs, and boost productivity.

For more information about the Cisco Unified IP Phone 8900 series, go to:

<http://www.cisco.com/en/US/products/ps10451/index.html>

- Advanced Collaborative Media: Cisco Unified IP Phone 9900 Series

The Cisco Unified IP Phones 9900 series supports interactive, high-performance business video, enabled directly from the IP phones, with an optional Cisco Unified Video Camera that supports full-screen, two-party and multi-party H.264 standard video.

For more information about the Cisco Unified IP Phone 9900 Series, go to:

<http://www.cisco.com/en/US/products/ps10453/index.html>

Cisco Unified IP Phone Expansion Modules

The Cisco Unified IP Phone Expansion Modules 7914, 7915, and 7916 are used by administrative assistants and others who need to determine the status of a number of lines beyond the current line capability of the phone.

The Cisco Unified IP Phone Expansion Modules 7914, 7915, and 7916 extend the capability of the Cisco Unified IP Phones 7960G, 7961G, 7961G-GE, 7962G, 7965G, 7970G, 7971G-GE, or 7975G with additional buttons and an LCD. The Cisco Unified IP Phone Expansion Module 7914 provides 14 buttons per module, and the Cisco Unified IP Phone Expansion Modules 7915 and 7916 provide up to 24 buttons per module. Cisco Unified IP Phones 796xG and 797xG can support up to two Cisco Unified IP Phone Expansion Modules. If the IP phone uses Cisco inline power or IEEE802.3af PoE, then the Cisco Unified IP Phone Expansion Modules 7914, 7915, and 7916 require the use of an external power adaptor (CP-PWR-CUBE-3).

**Note**

When two Expansion Modules are used with a single phone, the second module must be the same model as the first one.

For more information about Cisco Unified IP Phone 7900 Series Expansion Modules, see:

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

Collaboration Endpoints

Designed for optimal collaboration, Cisco endpoints range from IP phones, to web, mobile, and desktop clients.

- Cisco Desktop Collaboration Experience DX650

The Cisco Desktop Collaboration Experience DX650 is compatibility test suite (CTS) compliant with the open Android platform, so it provides access to the ecosystem of Cisco and commercial third-party applications that are developed for Android. Customers can also develop custom applications for Android and deploy them to both their Cisco DX650 and mobile users. The Cisco DX650 also takes advantage of the touch-directed ease of use of Android, and its ability to personalize experiences with customizable home screens, communications widgets, ringtones, and more.

The Cisco Desktop Collaboration Experience DX650 provides these capabilities:

- High-definition (HD) voice and video communications
- Conferencing with Cisco WebEx meeting applications
- Presence and instant message with the Cisco Jabber messaging integration platform
- On-demand access to cloud services
- Video calling interoperability to other H.264 video endpoints, for example: Cisco Unified IP Phone 8900 and 9900 Series models, Cisco Jabber platform on personal mobile devices, and CTS-compliant Cisco TelePresence endpoints and room systems

For more information about the Cisco Desktop Collaboration Experience DX650, go to <http://www.cisco.com/en/US/products/ps12956/index.html>.

- The Cisco TelePresence EX Series is a family of personal telepresence systems for the desktop. It lets you and your colleagues instantly collaborate face to face, any time, any where. Comprised of the Cisco TelePresence EX90 for executives and the EX60 for managers and knowledge workers, the EX Series offers comfortable and natural communications with assured quality. Tight integration with Cisco Unified Communications Manager also provides EX Series users with both video and voice functionality for a powerful collaboration device.

Features and capabilities include:

- Superior daily collaboration capabilities at the desktop
- The ability to instantly connect face-to-face, whether across the street or over several time zones
- Touch-screen content sharing and feature access [touch-screen, not keypad]
- A variety of models available for executives, managers, and knowledge workers
- Tight video and voice integration with Cisco Unified Communications Manager

For more information about the Cisco TelePresence System EX Series, go to <http://www.cisco.com/en/US/products/ps11327/index.html>.

- Cisco TelePresence System 500

Cisco TelePresence System 500 offers the same experience of three-screen meeting room solutions, but with a smaller footprint. This gives individuals the flexibility to join large, multi-location group meetings, or host intimate, remote one-on-one meetings from the personal office. The system also offers any-to-any interoperability with standard- and high-definition video conferencing endpoints and collaboration with desktop video applications, including Cisco WebEx meeting applications.

Features and capabilities include:

- Streamlined design that fits private offices for easy installation, requiring little-to-no room remediation and construction cost
- 1080p and 720p resolution on a premium 32-inch display with camera, microphone, speakers, and lighting fully integrated in an elegant design
- Capability of one or two users to join meetings, appearing life-size on Cisco TelePresence 3000, Cisco TelePresence T3, and other immersive endpoints, with full Cisco TelePresence audio and video quality
- Same technology platform as the TX series immersive endpoints
- Simple "one-button-to-push" calling that integrates with common enterprise calendaring programs

For more information about the Cisco TelePresence System 500 Series, go to <http://www.cisco.com/en/US/products/ps9599/index.html>.

- Cisco TelePresence Profile Series

The Cisco TelePresence Profile Series offers a lifelike, HD video collaboration experience for teams of all sizes. This integrated telepresence solution delivers an easy-to-use and consistent video experience.

The Profile Series has several options powered by the Cisco TelePresence C-Series Codec, depending on the size of your meeting room and your requirements for collaboration and content sharing. Options include:

- Cisco TelePresence Profile 42-inch
- Cisco TelePresence Profile 55-inch and 55-inch dual

- Cisco TelePresence Profile 65-inch and 65-inch dual

For more information about the Cisco TelePresence Profile Series, go to:

<http://www.cisco.com/en/US/products/ps11326/index.html>

- Cisco TelePresence MX Series

The Cisco TelePresence MX Series can turn a conference room into a telepresence room, where you can call team members to a meeting on a brilliant 42-inch or 55-inch screen, within 10 minutes. The Cisco TelePresence MX200/MX300 and second-generation MX300 G2 are value products within the MX Series of multipurpose endpoints. These cost-effective, easy-to-install, and simple-to-use products bring colleagues from around the world face-to-face.

Features include

- Simple setup through auto-provisioning and intelligent self-configuration make it easy for IT to install on the network
- Ease of operation through the intuitive Cisco TelePresence Touch 8 interface that allows meeting participants to initiate calls with the push of a single button
- High-quality global service through Cisco, provide a reliable experience and consistent support in more than 120 countries, which makes large-scale global deployments of the MX Series easier to achieve

For additional information about Collaboration Endpoints, go to:

http://www.cisco.com/en/US/products/ps11303/Products_Sub_Category_Home.html

Cisco TelePresence SX20 Quick Set

The Cisco TelePresence SX20 Quick Set is a flexible solution that lets you easily turn any flat panel display into a telepresence system for small to medium-size meeting rooms. The SX20 Quick Set delivers high-definition video quality, multiparty conferencing, and three different camera options to accommodate room size and configurations. The SX20 Quick Set provides the performance expected of more expensive systems, in a compact, multi-featured package.

Features and capabilities include:

- Can transform a flat panel display into a high-definition telepresence system
- Embedded MultiSite capability lets you add three more participants to a call
- Can share multimedia and presentations with the touch of a button
- Simple, intuitive connections make for easy set-up

For more information about the Cisco TelePresence SX20 Quick Set, see:

<http://www.cisco.com/en/US/products/ps12153/index.html>

Cisco Virtualization Experience Media Engine

The Cisco® Virtualization Experience Media Engine (Cisco VXME) extends the rich collaboration experience of Cisco Jabber™ for Windows to virtualized environments.

In virtualized environments, Cisco Jabber is deployed in the datacenter while Cisco VXME runs on the local client. With Cisco Jabber running on your hosted virtual desktop, you can see presence status, send an instant message, check voice messages, or collaborate over a video call. Voice and video traffic is processed locally by Cisco VXME and routed point-to-point between clients, bypassing the datacenter and eliminating the "hairpin" effect of media.

With Cisco VXME, organizations that implement virtualization can deliver the same rich, uncompromised user experience of Cisco Jabber to virtualized desktops, PCs, Macs, and smartphones.

For additional information, go to:

<http://www.cisco.com/en/US/products/ps12862/index.html>

Cisco Virtualization Experience Client 6215

Cisco® Virtualization Experience Client 6215 (VXC 6215) is a secure, reliable thin unit designed to easily integrate into your virtualized infrastructure. When delivered with the Cisco Virtualization Experience Media Engine (VXME), it unifies voice, video, and virtual desktop all in one device.

For more information, go to:

http://www.cisco.com/en/US/prod/collateral/voicesw/ps11295/ps11976/data_sheet_c78-689833.html

Cisco UC Integration

Cisco UC Integration(TM) for IBM Sametime

Cisco UC Integration™ for IBM Sametime provides instant access to Cisco Unified Communications capabilities directly from IBM Sametime. The integration extends native audio and HD video capabilities to Sametime Instant Message and presence users. It includes Cisco phone control and presence status with integrated voicemail and conversation history. The integration allows access to Cisco call control for both standalone and Notes-embedded clients.

For more information about Cisco UC Integration(TM) for IBM Sametime, see:

<http://www.cisco.com/en/US/products/ps12774/index.html>

Cisco UC Integration for Microsoft Lync 9.2

Cisco UC Integration™ for Microsoft Lync is a desktop solution that provides access to Cisco Unified Communications from Microsoft Lync. It extends the presence and instant messaging capabilities of Microsoft Lync through access to a broad set of Cisco Unified Communications capabilities, including softphone standards-based video, unified messaging, audio and videoconferencing, desk-phone control, and phone presence.

For more information about Cisco UC Integration for Microsoft Lync 9.2, see:

http://www.cisco.com/en/US/partner/prod/collateral/voicesw/ps6789/ps6836/ps11390/data_sheet_c78-635040_ps11390_Products_Data_Sheet.html

Cisco Unified Communications for RTX

Cisco Unified Communications for RTX unifies voice, video, data, and applications on fixed and mobile networks, simplifying and enabling borderless collaboration anytime, anywhere. This client application integrates your most frequently used communication applications and services, such as instant messaging,

presence, softphone, desk phone controls, corporate directory, high-definition (HD) video, web conferencing, and Visual Voicemail.

For more information about Cisco Unified Communications for RTX, see:

http://www.cisco.com/en/US/products/ps11241/tsd_products_support_series_home.html

Cisco Unified Video Advantage

Cisco Unified Video Advantage brings video telephony functionality to select Cisco Unified IP Phones and to the Cisco IP Communicator softphone application. Users make and receive calls using the familiar phone interface, with the video component displayed on user PCs without additional user action required. Enterprises can leverage their existing IP networks and desktop phones to extend video calling to everyone in the organization.

For additional information, go to:

<http://www.cisco.com/en/US/products/sw/voicesw/ps5662/index.html>

Cisco Unified Communications Integration for Microsoft Lync

Cisco Unified Communications Integration™ for Microsoft Lync (Cisco UC Integration™ for Microsoft Lync) is a desktop integration that provides access to Cisco Unified Communications from Microsoft Lync. The solution extends the presence and instant messaging capabilities of Microsoft Lync by providing access to a broad set of Cisco Unified Communications capabilities, including softphone standards-based video, unified messaging, audio and video conferencing, desk-phone control, and phone presence.

With this tight integration for Microsoft Lync, you get a consistent user experience, enhanced communications capabilities, and reduced infrastructure complexity. You also gain:

- Increased productivity - Instantly connect from anywhere using the embedded Cisco IP softphone and high-definition video
- Streamlined communications - Get telephony presence, visual voicemail, communications history, and desk phone control
- Enhanced collaboration - Initiate or join multiparty audio, web, and video conferences using Cisco conferencing solutions
- Reduced complexity - Simplify communications with easy-to-deploy integration and a single-call control architecture
- Investment protection - Increase efficiency with Cisco Unified Communications and protect existing desktop investments

For additional information, go to:

<http://www.cisco.com/en/US/products/ps11390/index.html>

Wireless and Mobility

Cisco Aironet

The Cisco Aironet Series Access Points provide highly secure and reliable wireless connections for both indoor and outdoor environments.

- Cisco Aironet 3502 Access Point

Cisco Aironet 3500 Series Access Points with CleanAir technology are the first 802.11n access points to create a self-healing, self-optimizing wireless network. By intelligently avoiding interference, they provide the highest-performance connectivity for mission-critical mobility and reliable application delivery.

- Cisco Aironet 1142 Access Point

Cisco Aironet 1140 Series indoor access points have a sleek design that blends into enterprise environments, and they can be powered with standard 802.3af Power over Ethernet, and provides six times the performance of 802.11a/g networks for reliable connections to Wi-Fi voice, streaming video, and business applications.

For information about all Cisco Aironet Series Access Points, see:

http://www.cisco.com/en/US/products/ps5678/Products_Sub_Category_Home.html#~Products

Cisco Mobile

Cisco Mobile gives users the ability to redirect incoming IP calls from Cisco Unified Communications Manager to different designated phones, such as cellular phones. Users can also transition active calls between their Cisco desktop and phone without interruption.

Cisco Mobile includes these features:

- Streamlined communications, giving callers one number to dial, and by redirecting incoming calls to multiple phones
- Active calls can move between the Cisco desktop and mobile phone to take advantage of the best available resource
- Simplified message management, by directing unanswered calls to a Cisco Unity Connection account
- Personalized access lists that determine which business calls get extended to alternate phone numbers, and at what point that occurs

For more information about Cisco Mobile, go to:

<http://www.cisco.com/en/US/products/ps6567/index.html>

Cisco Jabber

**Note**

Collaboration System Release 10.0(1) currently supports the Collaboration Edge infrastructure that you will be able to utilize when Collaboration Edge-enabled endpoints and clients become available in early 2014.

Cisco Jabber client software works in conjunction with Cisco Unified Communications Manager to provide users with a unified client they can deploy across on-premises and cloud-based options.

Cisco Jabber clients include the following:

- Cisco Jabber for iPhone

Cisco Jabber for iPhone streamlines communications and enhances productivity by unifying presence, instant messaging, voice, voice messaging, and conferencing capabilities more securely into one client on your iPhone. Cisco Jabber for iPhone delivers highly secure, clear, and reliable communications. It offers flexible deployment models, and is built on open standards. Communicate and collaborate effectively from anywhere you have an Internet connection.

For more information about Cisco Jabber for iPhone, see <http://www.cisco.com/en/US/products/ps11596/index.html>.

- Cisco Jabber for iPad

Cisco Jabber for iPad streamlines communications and enhances productivity by unifying presence, instant messaging, voice, voice messaging, and conferencing capabilities more securely into one client on your iPad. Cisco Jabber for iPad delivers highly secure, clear, and reliable communications. It offers flexible deployment models, and is built on open standards. Communicate and collaborate effectively from anywhere you have an Internet connection.

For more information about Cisco Jabber for iPad, see <http://www.cisco.com/en/US/products/ps12430/index.html>.

- Cisco Jabber for Mac

Cisco Jabber for Mac streamlines communications and enhances productivity by unifying presence, instant messaging, voice, voice messaging, desktop sharing, and conferencing capabilities more securely into one client on your desktop. Cisco Jabber for Mac delivers highly secure, clear, and reliable communications. It offers flexible deployment models, is built on open standards, and integrates with commonly used desktop applications. Communicate and collaborate effectively from anywhere you have an Internet connection.

For more information about Cisco Jabber for Mac, see <http://www.cisco.com/en/US/products/ps11764/index.html>.

- Cisco Jabber for Windows

Cisco Jabber for Windows streamlines communications and enhances productivity by unifying presence, instant messaging, video, voice, voice messaging, desktop sharing, and conferencing capabilities securely into one client on your desktop. Cisco Jabber for Windows delivers highly secure, clear, and reliable communications. It offers flexible deployment models, is built on open standards, and integrates with commonly used desktop applications. You can communicate and collaborate effectively from anywhere you have an Internet connection.

For more information about Cisco Jabber for Windows, see <http://www.cisco.com/en/US/products/ps12511/index.html>.

- Cisco Jabber for Android

The Cisco Jabber IM for Android application delivers cloud-based or premises-based instant messaging (IM) to your Android mobile device. Together, the Cisco Jabber and Cisco Jabber IM applications for Android allow you to work efficiently from anywhere by bringing presence, IM, enterprise voice, visual voicemail, and corporate directory lookup to your Android mobile device.

The Cisco Jabber IM for Android application delivers cloud-based or premises-based instant messaging (IM) to your Android mobile device. Together, the Cisco Jabber and Cisco Jabber IM applications for Android allow you to work efficiently from anywhere by bringing presence, IM, enterprise voice, visual voicemail, and corporate directory lookup to your Android mobile device.

For more information about Cisco Jabber Voice for Android 9.1.4 , see <http://www.cisco.com/en/US/products/ps11678/index.html>.

For additional information about Cisco Jabber, go to:

http://www.cisco.com/en/US/prod/voicesw/ps6789/jabber_uc_apps.html

Network Management

Cisco Prime Collaboration

Cisco Prime Collaboration helps enable rapid installation and maintenance of Cisco Unified Communications and Cisco TelePresence components as well as the provisioning of users and services, substantially increasing productivity and lowering operating expenses. By significantly reducing the complexity in performing moves, adds, and changes, the solution facilitates delegation of these tasks. This helps network operators to optimize IT resources and further reduce total cost of ownership.

This solution also provides efficient, integrated assurance management of applications and the underlying transport infrastructure. This includes real-time monitoring and troubleshooting of Cisco TelePresence solutions and the entire Cisco Unified Communications system. The solution expedites operator resolution of service quality issues before they affect end users and helps avoid system and service outages for a greater end user quality of experience.

Cisco Prime Collaboration also provides historical reporting of key performance indicators and enables IT network managers to analyze trends for capacity planning, resource optimization, and quality of service. The solution helps track collaboration technology adoption rates in the network and provides metrics to help analyze how users are actually using the collaboration endpoints daily. It also can show status and rollout progress of a collaboration network deployment.

Cisco Prime Collaboration offers:

- Efficient, policy-based provisioning of Cisco Unified Communications and Cisco TelePresence users and services through a single interface
- Delegation of voice and video provisioning changes for operational savings
- Real-time monitoring of voice and video networks with dashboard summaries and alarm correlation
- Consistent, reliable service delivery through proactive fault detection and rapid isolation

- Advanced diagnostics tools, including traffic simulation and testing of circuits and endpoints to help identify core issues

Cisco Prime Collaboration Standard is included with all Cisco Unified Workspace Licensing and Cisco User Connect Licensing for Cisco Unified Communications. This takes the complexity out of provisioning and monitoring your voice and video deployments. For deployments that require more advanced management capabilities, Cisco Prime Collaboration Advanced offers additional automation, deeper diagnostic capabilities, and long-term reporting.

**Note**

Single Sign On (SSO) for System Administrators gives access to Cisco Unified Communications Manager, Cisco Unity Connection, and Cisco Prime Collaboration.

For more information about these components, go to:

<http://www.cisco.com/en/US/products/ps12363/index.html>

Licensing

Cisco Prime License Manager

**Note**

From Release 10.0(1) onwards, Enterprise License Manager (ELM) has been rebranded as Cisco Prime License Manager.

The Cisco Prime License Manager (Cisco Prime LM) automates Cisco IOS software activation and license management for a wide range of Cisco platforms running IOS as well as other operating systems. Cisco Prime LM has an intuitive, easy-to-use interface, automates software activation workflows, and scales for large network deployments.

Automation accelerates the deployment of feature licenses and enables you to make advanced services available on your network more rapidly.

The Cisco Prime LM automatically:

- Discovers the network
- Inventories licensed features in the network by securely communicating with Cisco network devices
- When given a product authorization key (PAK), securely obtains device licenses from the Cisco.com license server
- Securely deploys the licenses to activate the software features on managed devices

For more information, go to:

<http://www.cisco.com/en/US/products/ps9156/index.html>

Communications Infrastructure

Virtualized Servers - Cisco Unified Computing System or 3rd-Party Server

Beginning with Cisco Collaboration Systems Release 10.0(1), Cisco is migrating from non-virtualized hardware servers to a virtualized servers only.

**Note**

Cisco Unified Communications can run virtualized on UCS or third-party servers. For more information go to:

<http://www.cisco.com/go/uc-virtualized>

Cisco Unified Computing System (Cisco UCS) is an architecture that integrates computing resources (CPU, memory, and I/O), IP networking, network-based storage, and virtualization, into a single highly available system. This level of integration provides economies of power and cooling, simplified server connectivity into the network, dynamic application instance repositioning between physical hosts, and pooled disk storage capacity. The architecture uses Unified fabric that provides transport for LAN, storage, and high-performance computing traffic over a single infrastructure with the help of technologies such as Fiber Channel over Ethernet. Cisco's unified fabric technology is built on a 10-Gbps Ethernet foundation that eliminates the need for multiple sets of adapters, cables, and switches for LANs, SANs, and high-performance computing networks.

The Cisco Unified Computing System:

- Streamlines data center resources to reduce total cost of ownership
- Scales service delivery to increase business agility
- Radically reduces the number of devices requiring setup, management, power, cooling, and cabling

For more details about the Cisco Unified Computing System architecture, go to:

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

Two types of Cisco Unified Computing System servers are available for a Unified Communications solution:

- **Cisco UCS B-Series Blade Servers**—[B-Series Blade Servers](#) support production-level virtualization and other mainstream data center workloads. Available in either half-width or full-width form factors. Up to eight half-width or four full-width blades in a Cisco UCS 5108 Blade Server Chassis, with a maximum of 320 blade servers per Unified Computing System Manager.
- **Cisco UCS C-Series Rack-Mount Servers**—[C-Series Rack Servers](#) are low-profile rack-mount servers supporting production-level network infrastructure, web services, and mainstream data center, branch and remote-office applications. Available in 4 rack unit (4RU), 2 rack unit (2RU) or 1 rack unit (1RU) form factors.
- **Cisco UCS E-Series Blade Servers for Cisco Integrated Services Router**—[E-Series Server](#) modules are single-socket blade, power-optimized, 64-bit blade servers designed to be deployed in Cisco Integrated Services Routers Generation 2 (ISR G2).

For information about best practices to setup virtualization and Cisco UCS hardware for Cisco Collaboration 10.0 applications, see

http://www.cisco.com/en/US/docs/voice_ip_comm/cucm/virtual/CUCM_BK_CA526319_00_cucm-on-virtualized-servers_chapter_00.html

For information about best practices to migrate from Cisco 7800 series Media Convergence Servers to virtualization on Unified Computing System Virtual Machines, see [Replace a Single Server or Cluster](#).

Or see [Prime Collaboration Deployment](#) for information about how to perform an automated migration from MCS hardware to a virtualized platform.

Cisco 7800 Series Media Convergence Servers are end-of-sale (EOS) as of October 30, 2013, and are not supported for new Installations of 10.0 or upgrades/migrations to 10.0. Virtual Machines are the only supported platform for Cisco Unified Communications Manager 10.0, running on either Cisco Unified Computing System or third-party server.

For information about the Cisco 7800 Series Media Convergence Server end-of-life (EOL) notice, see: <http://www.cisco.com/en/US/products/hw/voiceapp/ps378/index.html>

Cisco Unified Border Element

The Cisco Unified Border Element (CUBE) is Cisco's enterprise-focused session border controller (SBC), providing voice and video connectivity from the enterprise IP network to Service Provider SIP trunks. Using CUBE with SIP trunking, enterprises can lower costs, simplify their voice network and extend rich collaboration services.

The Cisco Unified Border Element performs the four critical functions of an SBC: session control, security, interworking and demarcation. It is integrated into the Cisco router offering these benefits:

- Migration control—can migrate to SIP in a way that makes sense for your business by controlling the pace and deployment strategy
- Choice of deployment—can support centralized, distributed or hybrid deployments often with minimal to no hardware investment
- Flexibility on a single platform—can provide multiple services on the same platform, and leverages router features for improved network interworking
- Investment protection—can repurpose network equipment assets as the voice network evolves

For additional information, go to:

http://www.cisco.com/en/US/products/sw/voicesw/ps5640/tsd_products_support_series_home.html

Cisco Integrated Services Routers

The Cisco 1800, 2800, 3800, 2900, 3900, 3900E series integrated services routers, and the Cisco 4451-X Integrated Services Router (Cisco ISR 4451-X) can be deployed as voice gateway routers as part of the Cisco IP Communications solution. Deployments can use these routers as voice gateways with call component process for Cisco Unified Communications Manager.

The Cisco 1800 Series integrated services routers are ideal for small to medium-sized businesses and small enterprise branch offices. The 1800 series routers help businesses to reduce costs by deploying a single, resilient system for fast, secure delivery of multiple mission-critical business services. The Cisco 1861 integrated services router is a modular platform that provides voice, data, voicemail, automated attendant, video, and security capabilities. It includes:

- Cisco Unified Communications Manager Express or Survivable Remote Site Telephony for call processing for up to 8 users
- Optional Cisco Unity Express, for voice messaging and automated attendant
- LAN switching with Power over Ethernet (PoE) expandable through Cisco Catalyst Switches
- Onboard voice ports for PSTN, PBX, and key system connections

Cisco 2800 and 3800 series integrated services routers communicate directly with Cisco Unified Communications Manager, allowing for the deployment of IP telephony solutions for large enterprises and service providers that offer managed network services. These routers provide a highly flexible and scalable solution for small and medium-sized branches and regional offices.

The Cisco 2800 and 3800 series voice gateway routers support a wide range of packet telephony-based voice interfaces and signaling protocols, providing connectivity support for more than 90 percent of PBX and PSTN connection points. Signaling support includes T1/E1 Primary Rate Interface (PRI), T1 channel associated signaling (CAS), E1-R2, T1/E1 QSIG protocol, T1 Feature Group D (FGD), Basic Rate Interface (BRI), foreign exchange office (FXO), ear and mouth (E&M), and foreign exchange station (FXS). These voice gateway routers can be configured to support from 2 to 540 voice channels.

The Cisco 2900 and 3900 series integrated services routers (ISRs) offer secure, wire-speed delivery of concurrent data, voice, and video services. The modular design of these routers provides maximum flexibility and allows you to configure the router to meet evolving needs.

The routers support virtual private network (VPN) encryption acceleration, intrusion-protection and firewall functions, and optional integrated call processing and voicemail. A wide variety of legacy network modules and interfaces, service modules (SMs), internal services modules (ISMs), next-generation packet voice/data modules (PVD3), Services Performance Engines (SPEs), high-density interfaces for a wide range of connectivity requirements, and sufficient performance and slot density for future network expansion requirements and advanced applications are available.

Cisco 2900 and 3900 series integrated services routers with Cisco IOS Release 15.x supports FXS ports, Conferencing and transcoding DSP resources with the following gateways—MGCP 0.1, H.323, SCCP, and SIP. The Cisco 2900 and 3900 Series gateways with the PVD3 DSPs do not support Cisco Fax relay.

For more information about Cisco integrated services routers, go to:

http://www.cisco.com/en/US/products/ps10906/Products_Sub_Category_Home.html

The Cisco ISR 4451-X is a modular router with LAN and WAN connectivity and supports several interface modules, including Cisco Service Modules (SMs), or Enhanced Service Modules (SM-X), and Network Interface Modules (NIMs). The router has slots that support the interface modules and modular Hard Disk Drives (HDD).

The Cisco ISR 4451-X runs on Cisco IOS XE 3.9S or later, and extends the support for data, voice, and other applications. This modular architecture increases network resiliency, compared to using fewer modules in standard Cisco IOS software.

The Cisco ISR 4451-X targets the following applications:

- Enterprise applications—Intended as the mid-size aggregation and gateway router typically residing in a regional or large branch office.
- Service provider applications—Intended for high-end Enterprise Branch environments.

For additional information, go to:

<http://www.cisco.com/en/US/products/ps12522/index.html>

Cisco VG Series Gateways

Cisco VG Series Gateways provide added flexibility during migration to Unified Communications by supporting traditional analog devices. These devices include analog phones, fax machines, modems, voicemail systems, and speakerphones. The series offers a full range of solutions which include the following products.

- Cisco VG350 Analog Gateway offers these key benefits:
 - Standalone solution for high-density for deployments of up to 160 analog ports
 - Provides mix and match modules for high density long or short loop lengths solutions
 - Increase flexibility with additional slots available for FXS and FXO ports
 - Improve end-user experience using advanced digital signal processor technology to reduce background noise and prevent acoustic shock
 - Advance power management using Cisco EnergyWise technology
- Cisco VG224 Analog Gateway offers these key benefits:
 - Standalone solution for medium-density for deployments of 24 lines or less
 - Combines a high-density RJ21 analog interface with Cisco IOS Software manageability to increase the functionality of analog equipment
 - Offers gateway capabilities for analog voicemail systems
 - Housed in a compact, 19-inch rack-mount chassis
- Cisco VG204XM and VG204XM Analog Gateways offers these key benefits:
 - Standalone solution for low-density for deployments of four lines or less
 - Combines RJ11 interfaces with Cisco IOS Software manageability to increase the functionality of analog equipment
 - Housed in a compact, fanless, desktop chassis that also is wall-mountable
- Cisco High Density Analog Gateway Service Modules offers these key benefits:
 - High density modules for Cisco 2900 and 3900 Series of Integrated Services Routers
 - Offers 72 ports or 48 port options
 - Provides a choice of high density long or short loop lengths solutions

All platforms integrate with Cisco Unified Communications Manager, Cisco Hosted Collaboration Solution, Cisco Business Edition 6000, or Cisco Unified Communications Manager Express. In addition, these analog gateways interoperate with third-party PBXs.

For additional information, go to:

<http://www.cisco.com/en/US/products/hw/gatecont/ps2250/index.html>

Cisco Virtualization Experience Infrastructure

The Cisco Virtualization Experience Infrastructure (VXI) system delivers superior collaboration capabilities in virtualized environments that allow users to experience a unified workspace on any device. This software extends the Jabber collaboration experience to users in virtualized environments.

- Unprecedented control and increased security
- Rapid deployment, scaling, and life cycle management of virtual desktops
- Improved user experience and application responsiveness
- Greater control of desktop total cost of ownership (TCO)

For more information about the Cisco VXI, go to:

http://www.cisco.com/en/US/products/ps11295/Products_Sub_Category_Home.html

Cisco Design Tools

The Cisco Unified Communications Solution includes the following Design Tools components.

**Note**

These tools are available to Cisco and Unified Communications specialized partners only.

- Cisco Collaboration Sizing Tool—a web-based tool that assists users with hardware sizing of large or complex Cisco Collaboration Systems solutions by calculating the call processing requirements for products that have a major impact on performance and scalability.

The output from the Cisco Collaboration Sizing Tool includes the count and size mix of Virtual Machines, which can be used with the Cisco Collaboration Virtual Machine Placement Tool.

With the Collaboration Sizing Tool, system engineers with Cisco Collaboration solution experience or individuals with equivalent abilities can design and model solutions for existing and prospective customers. The tool requires various types of information to calculate the minimum size and type of devices required for a solution, such as the type and quantity of IP phones, gateways, and media resources. For most device types, the tool also requires the average number of call attempts per hour per device during the busy hour (known as busy hour call average or BHCA) and the average utilization time. The resulting calculations produced by the tool can be saved, copied, and sent to other users.

- Cisco Collaboration Virtual Machine Placement Tool—a web-based tool that assists users determine the placement of virtual machines and the hardware design for virtualized Collaboration solutions.

The tool requires the user to have sized the applications and know which Virtual Machines and how many are to be used. So use the Cisco Collaboration Sizing Tool before you use the Cisco Collaboration Virtual Machine Placement Tool.

- Quote Builder—a solutions quoting application for Cisco Collaboration products.

With Quote Builder, users can build a system quote with design documents to aid in the implementation of the solution. Quote Builder also validates designs for common deployments. Quote Builder generates a bill of materials, a network diagram, and design guides for deployment. To access Quote Builder, go to the following URL

- Solution Expert—a web-based tool that assists in the design, configuration, quoting, and ordering of Cisco Unified Communications products.

With Solution Expert, users can generate a recommended solution based on their requirements. Users can modify the recommended configuration if desired. Solution Expert validates any changes when it presents the new solution. Solution Expert also generates a bill of materials with list pricing, a Microsoft Visio diagram, and other design documentation.



Component Protocols and APIs

This chapter lists the protocols and call control application program interfaces (APIs) that are supported by various Cisco Unified Communications components.

- [Call Control Signaling Protocols, page 37](#)
- [Cisco Unified Communications Application Program Interfaces, page 38](#)

Call Control Signaling Protocols

Cisco Collaboration components support an array of call control signaling protocols. The following table shows the call control signaling protocols that are supported by each component.

Table 1: Call Control Signaling Protocol Support

	DPNSS	H.320	H.323	ISDN	MGCP	SCCP	SIP	QSIG	T1 CAS	IPv6
Unified CM	x		x	x	x	x	x	x ¹	x	x
Unified CCX			x			x	x			
Cisco Business Edition	x		x	x	x	x	x	x	x	
Unified CCE			x			x	x			
Cisco Emergency Responder						x	x			
Cisco Unified IP Phones						x	x			x
Cisco Unified MeetingPlace			x				x			

	DPNSS	H.320	H.323	ISDN	MGCP	SCCP	SIP	OSIG	T1 CAS	IPv6
Unified Personal Communicator							X			
Unified SRST			X			X	X			
Cisco IP Communicator						X	X			
Cisco IP Communicator						X	X			
Cisco Unity Connection						X	X			X
Cisco Unity Express							X			
Cisco Unified SIP Proxy							X			
Gateways	X	X	X	X	X	X ²	X	X	X	X
Cisco TelePresence VCS			X	X			X			X

¹ Unified CM does not support QSIG protocol directly, but only through a MGCP gateway. In such cases Unified CM also supports DPNSS, ISDN, and T1 CAS protocols.

² VG248 and VG224 supports SCCP. ISR platforms can also register their FXS ports to Cisco Unified Communication Manager through SCCP.

Cisco Unified Communications Application Program Interfaces

Cisco Unified Communications Application Programming Interfaces (APIs) provide you with the flexibility to customize the capabilities of many Cisco Collaboration components.

The following table shows the call control signaling APIs that are supported by each component.

Table 2: Cisco Unified Communications Application Programming Interfaces

	AXL	CTI-QBE	HTTP	IMAP	JTAPI	LDAP	MRCP	SNMP	SOAP	SQL	TAPI	TFTP	VPIM	VXML	XML
Emergency Responder			X					X			X				
Unified CM	X	X	X		X	X		X	X	X	X	X			X

	AXL	CTI-QBE	HTTP	IMAP	JTAPI	LDAP	MCP	SMP	SOAP	SQL	TAPI	TFTP	VPIM	VXML	XVL
Unified CME	x		x					x	x		x	x		x	x
Cisco BE	x	x	x	x	x	x		x	x	x	x	x	x		
Unified CCE		x	x		x	x		x ³		x					
Unified CCX			x		x	x	x			x				x	
Cisco Unified IP Phones			x									x			x
Unified Meeting-Place			x			x		x	x ⁴	x					x ⁵
Unified Personal Communicator		x	x	x		x			x			x			
Cisco Unity Connection	x		x	x		x		x		x			x		
Unity Express		x	x	x ⁶	x			x			x	x	x		
Gateways															x
Cisco TelePresence VCS			x			x		x							x

³ Supported in Windows platforms.

⁴ Support between Video Integration and Video Admin

⁵ Cisco Unified Meeting Place supports XML between Video Integration and Video Admin and between Video Admin and MCU

⁶ Cisco Unity Express is not fully IMAP compliant. IMAP integration is supported only for Outlook, Outlook Express, Lotus Notes and Entourage 2008



Deployment Models

With Cisco Collaboration Systems you can choose from many deployment options, including cloud computing, hybrid, and on-premises. Regardless of the deployment model, benefits include:

- Hardware capacity assurance
- Predictable budgetary planning
- Simplified management
- Industry-leading Cisco IronPort support and corporate stability

For guidelines, recommendations, and best practices for implementing enterprise networking solutions, refer to the *Cisco Solution Reference Network Design (SRND)* guides and related documents, at: http://www.cisco.com/en/US/docs/voice_ip_comm/cucm/srnd/10/models.html

For design guidance and recommendations for deploying Cisco Collaboration and Unified Communications solutions, see *Cisco Unified Communications and Collaboration Solutions Design Guidance* at: http://www.cisco.com/en/US/docs/voice_ip_comm/uc_system/design/guides/UCgoList.html.

For information about deployment models, including details about all components in each model, refer to *Cisco Collaboration Systems Technical Information* at: <http://www.cisco.com/go/unified-techinfo>.

To learn more about cloud deployment models, go to: http://www.cisco.com/en/US/solutions/collateral/ns340/ns517/ns224/ns836/ns976/white_paper_c11-617239.html.

- [IPv6 Support, page 41](#)

IPv6 Support

Cisco Collaboration Systems supports the deployment of IPv6 in Unified Communications selected products. The current deployment can be configured to support IPv6 for voice and video for SIP, and voice for SCCP signaling. The characteristics and benefits of the IPv6, in all deployment models is the same as those in the IPv4, and as defined in the IPv6 Cisco Collaboration 10.x Solution Reference Network Design (SRND).



Note

IPv6 is not supported in Cisco Unified Contact Center environments.

For more information, see Cisco Unified Communications and Collaboration Solutions Design Guidance, available at:

http://www.cisco.com/en/US/docs/voice_ip_comm/uc_system/design/guides/UCgoList.html



Maintenance and Support

- [Service Offerings](#), page 43
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Service Offerings

Using the Cisco Lifecycle Services approach, Cisco Systems and its partners offer a broad portfolio of end-to-end services. These services are based on proven methodologies for deploying, operating, and optimizing Unified Communications solutions. Planning and design services, for example, can help you meet aggressive deployment schedules and minimize network disruption during implementation. Operate services reduce the risk of communications downtime with expert technical support. Optimize services enhance solution performance for operational excellence. Cisco and its partners offer a system-level service and support approach that can help you create and maintain a resilient, converged network that meets your business needs.

Cisco Unified Communications service offerings include:

- Cisco Unified Communications Essential Operate Service, which provides 24-hour, 365-day-a-year access to Cisco Systems engineers and certified partners who are highly trained and have a deep understanding of Cisco Unified Communications products and technologies.
- Cisco Unified Communications Select Operate Service, which provides a proactive support solution that combines 24-hour, 365-day-a-year access to technical support representatives plus a simple-to-install monitoring solution designed for Cisco Unified Communications.
- Cisco Unified Communications SMB Network Operate & Optimize Service, is a partner-led service offering (designed specifically for the medium-sized businesses) that enables the delivery of affordable, ongoing, high-availability network support.

For more information, go to <http://www.cisco.com/en/US/products/sw/voicesw/services.html>

Cisco Technical Assistance Center

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, Cisco provides around-the-clock, award-winning technical support services, online and over the phone.

For Enterprises and Service Providers, the TAC Service Request Tool lets you describe the issue in your own words and attach files to the service request, and will route your service request to an appropriate engineer as fast as possible. You can also use this tool to update your service request. The tool will send an automatic alert to your Cisco TAC engineer when you submit an update.

For more information about creating a service request, or for information about phone support for Enterprises and Service Providers, including the contact numbers appropriate for your country, go to:

http://www.cisco.com/web/tsweb/pdf/cisco_tools_tsrt.pdf

For urgent situations regarding enterprise level products, use the Phone Support for Enterprises and Service Providers.

To make a service request, go to:

<https://tools.cisco.com/ServiceRequestTool/create/launch.do>

Cisco SMARTnet Service

Cisco SMARTnet Service is an award-winning technical support service that gives your IT staff direct, anytime access to Cisco engineers and extensive Cisco.com resources.

In addition to Cisco TAC phone support, Cisco SMARTnet Service includes unrestricted access to a range of online support resources, including the following:

- Solve technical support issues online without opening a case
- Quickly and easily access the latest security updates, patches, and fixes
- Expand your expertise and skills with technical support, tips and advice from Cisco experts and other industry professionals

For more information about Cisco SMARTnet Service, go to:

<http://www.cisco.com/web/services/portfolio/product-technical-support/smartnet/index.html>

Cisco Unified Communications Software Subscription

Cisco Unified Communications Software Subscription increases business value by providing an economical and timely approach to upgrading to new Cisco technology, thereby optimizing return on investment (ROI) and reducing total cost of ownership (TCO) for Cisco Unified Communications Solutions. During the Cisco Unified Communications Software Subscription term, which can be 1, 2, 3, or 5 years, you can order major release* software upgrades at no additional charge. Minor** and maintenance*** release updates are a part of Cisco Unified Communications Essential Operate Service.

In addition to Cisco TAC phone support, Cisco SMARTnet Service includes unrestricted access to a range of online support resources, including the following:

- Solve technical support issues online without opening a case

- Quickly and easily access the latest security updates, patches, and fixes
- Expand your expertise and skills with technical support, tips and advice from Cisco experts and other industry professionals

For more information about Cisco Unified Communications Software Subscription, go to:

<http://www.cisco.com/en/US/products/ps9158/index.html>

Documentation and Service Requests

For information about obtaining documentation, submitting a service request, and gathering additional information, 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>

Subscribe to the *What's New in Cisco Product Documentation* as an RSS feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service. Cisco currently supports RSS Version 2.0.

Related Documentation

The Cisco Collaboration Systems Documentation provides a suite of interactive documentation that covers details of the system architecture and components, installation and upgrades, troubleshooting, and related information. You can access this documentation at this URL:

<http://www.cisco.com/go/unified-techinfo>

Career Certifications

Cisco offers the following levels of general IT certification:

- The Associate level is the first step in general Cisco Certifications and begins either with CCENT as an interim step to Associate level, or directly with CCNA for network operations or CCDA for network design. This level is the foundation level of networking certification.
- The Professional level is the second level in general Cisco Certifications and includes certifications such as CCNP, CCSP, CCDP, and CCIP each falling within a different certification path (or track) for meeting varying career needs. This level is an advanced level of certification that shows expertise with networking foundations.
- The Cisco Certified Design Expert (CCDE®) certification is one of the highest technical networking certifications offered by Cisco.
- The Cisco Certified Internetwork Expert (CCIE) certification is the highest level of technical networking certification offered by Cisco.
- The Cisco Certified Architect certification is the highest level of accreditation achievable within the Cisco Certification program. It is the pinnacle for individuals wishing to show their formal validation of Cisco technologies and infrastructure architecture.
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network professionals can enhance their core networking knowledge in technologies such as security, IP Communications, and wireless.

For additional information about these Cisco Certifications, go to:

<http://www.cisco.com/web/learning/certifications/index.html>



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