Cisco Unified Presence 8.6

Cisco® Unified Communications Solutions unify voice, video, data, and mobile applications on fixed and mobile networks, enabling easy collaboration every time from any workspace.

Cisco Unified Presence provides native standards-based dual-protocol enterprise instant messaging (IM) and network-based presence as part of Cisco Unified Communications. This secure, scalable, and easy-to-manage solution offers users feature-rich communications capabilities both within and external to the enterprise.

Cisco Unified Presence is tightly integrated with Cisco and third-party compatible desktop and mobile presence and IM clients, including Cisco Jabber. It enables these clients to perform numerous functions such as instant messaging, presence, click to call, phone control, voice, video, visual voicemail, and web collaboration. Cisco Unified Presence offers customers and partners the flexibility of rich, open interfaces that allow enablement of IM and Cisco rich, network-based presence for a wide variety of business applications.

Product Overview

Customers adopt Cisco Unified Communications Solutions to increase productivity, speed up communication, and enable collaboration with either colleagues within the enterprise or external partners and suppliers.

Cisco Unified Presence delivers enhanced enterprise IM features, including group chat, persistent chat, and IM logging, along with a suite of business-to-business and business-to-consumer IM and presence open federations.

Cisco Unified Presence lays the foundation to deliver enterprise IM and Cisco rich, network-based presence-enabled collaboration capabilities. Customers powered by Cisco Unified Presence and Cisco Unified Communications Solutions can then view the presence status or availability of the people they want to communicate with, exchange instant messages with these individuals, and escalate to a voice call or rich collaborative session.

Cisco Unified Presence natively supports standards-based Extensible Messaging and Presence Protocol (XMPP) and SIP for Instant Messaging and Presence Leveraging Extensions (SIP/SIMPLE). With this dual-protocol capability, Cisco Unified Presence offers customers a choice of either rich-featured Cisco Jabber Unified Communications clients or any third-party XMPP-compliant IM and presence client.
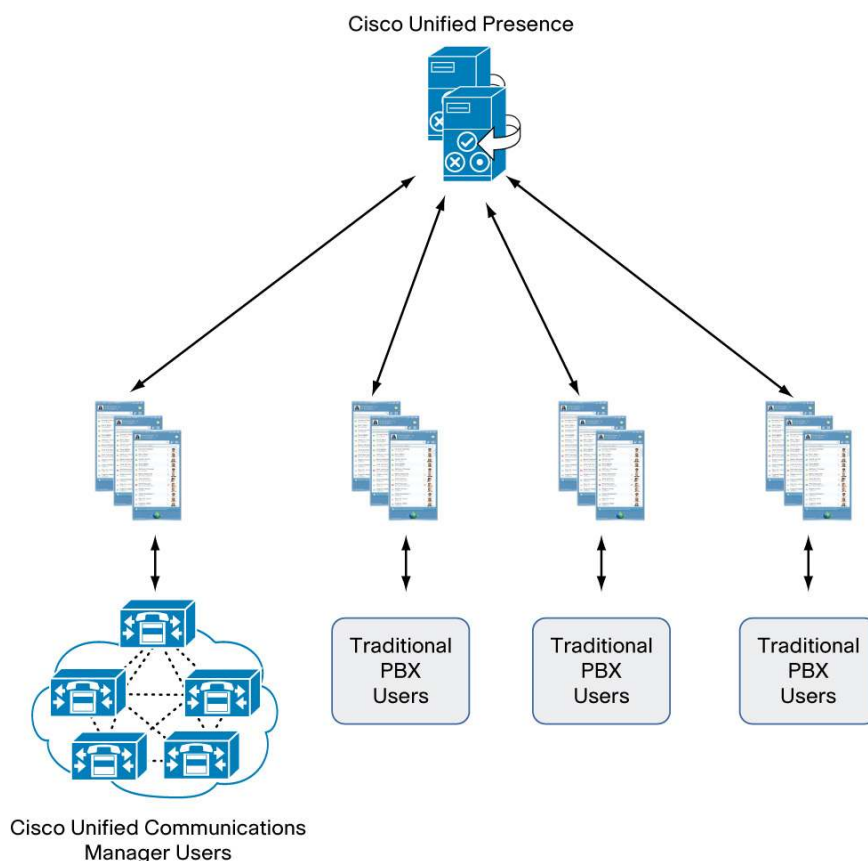
Cisco Unified Presence also supports presence-oriented Simple Object Access Protocol (SOAP) and Representational State Transfer (REST) interfaces. In addition, the application enables integration through Cisco AJAX XMPP Libraries (CAXL), which is a JavaScript presence and IM interface that allows customers and application developers to extend presence and IM to web-based applications.

Cisco Unified Presence Modes of Operation

Table 1 lists the maximum capabilities of Cisco Unified Presence, which has three modes of operation:

- Cisco Unified Communications mode: In this mode, Cisco Unified Presence integrates into a full Cisco Unified Communications environment to provide an enterprise-class IM and presence solution in conjunction with the full suite of unified communications services. In this mode, Cisco Unified Presence supports Cisco Unified Communications clients, such as Cisco Jabber (including Cisco Unified Personal Communicator and Cisco Mobile), Cisco Unified Mobile Communicator, and Cisco Agent Desktop, as well as third-party XMPP standard-based clients. When operating in Cisco Unified Communications mode, Cisco Unified Presence scales up to a maximum of 45,000 users in a multinode cluster environment.

- IM-only-user mode: Cisco Unified Presence provides an enterprise-class IM and presence solution for users who are not using Cisco Unified Communications Manager for call control. In IM-only-user mode, Cisco Unified Presence supports Cisco Unified Communication Clients, such as Cisco Jabber (including Cisco Unified Personal Communicator and Cisco Unified Mobile Communicator) for all enterprise-class IM and presence services. Cisco Unified Presence also supports the ability for third-party XMPP standard-based clients to interface with Cisco Unified Presence for IM and presence services. When operating in Cisco IM-only-user mode, Cisco Unified Presence scales up to a maximum of 75,000 users in a multinode cluster environment (refer to Figure 1).

Figure 1.   IM-Only-User Mode Supports IM and Presence for Users on Traditional PBXs

- Microsoft Office Communicator and Microsoft Lync interoperability mode (or Microsoft Remote Call Control): In this mode, Cisco Unified Presence allows Microsoft Office Communicator or Microsoft Lync users on a PC to interoperate with Cisco Unified IP Phones on Cisco Unified Communications Manager by providing click-to-dial and associated phone monitoring capabilities. Interoperability is made available by activating Microsoft Office Communicator interoperability mode in Cisco Unified Presence and configuring Microsoft Office Communicator or Microsoft Lync users. When operating in this mode, Cisco Unified Presence scales up to 20,000 Microsoft Office Communicator users per Cisco Unified Presence server and Cisco Unified Communications Manager cluster.

Table 1.   Cisco Unified Presence Maximum Capacities per Cluster

Mode of Operation	Maximum Number of Users Supported
Cisco Unified Communications mode	45,000[*]
IM-only-user mode	75,000[*]
Microsoft Office interoperability mode	40,000[**]

[*] In this mode there is no administrative limit. The number of users is based on validation of Cisco Unified Presence service on an expected user profile.
[**] In this mode Cisco Unified Presence operates as an interface point. Capacities for Microsoft Office interoperability mode are based on limits defined for a Cisco Unified Communications Manager cluster.

Features and Benefits

The following sections discuss the features and benefits of Cisco Unified Presence when operated in Cisco Unified Communications mode.

Enterprise Instant Messaging

Feature-rich enterprise IM is an important real-time communications medium for customers; it introduces another mode of communication among users, customers, and suppliers.

Instant messaging is an important communication option that lets you efficiently interact in today's multitasking business environment. Cisco Unified Presence provides personal chat, group chat, and persistent chat capabilities so you can quickly connect with individuals and groups and conduct ongoing conversations.

- Group chat allows you to create a temporary IM enterprise chat room and invite internal and external colleagues to the chat room to join an IM conference.

- Persistent chat is a permanent chat room that offers you ongoing access to a discussion thread. It is available even if no one is currently in the chat and remains available until explicitly removed from the system. It allows workers in different locations, countries, and time zones to participate with fellow team members, customers, partners, and suppliers to communicate, quickly gain context to ongoing conversations, and easily collaborate in real time.

Enterprise Instant Messaging Compliancy and Archiving

If IM compliancy and archiving is unmanaged, it is impossible to protect against outside threats or to ensure efficient and appropriate use of the capability. Sometimes it is necessary to store these IM records for future recovery and analysis by regulatory authorities and also to mitigate against the risks associated with information security breaches. Cisco Unified Presence provides the ability to meet these requirements in two ways (Figure 2):

- Provides for logging of IM records in a customer-managed and -provided PostgreSQL database
- Delivers an interface to third-party IM and compliancy engines that provide an interface to customer-provided eDiscovery solutions

Figure 2. Cisco Unified Presence Instant Messaging Compliancy
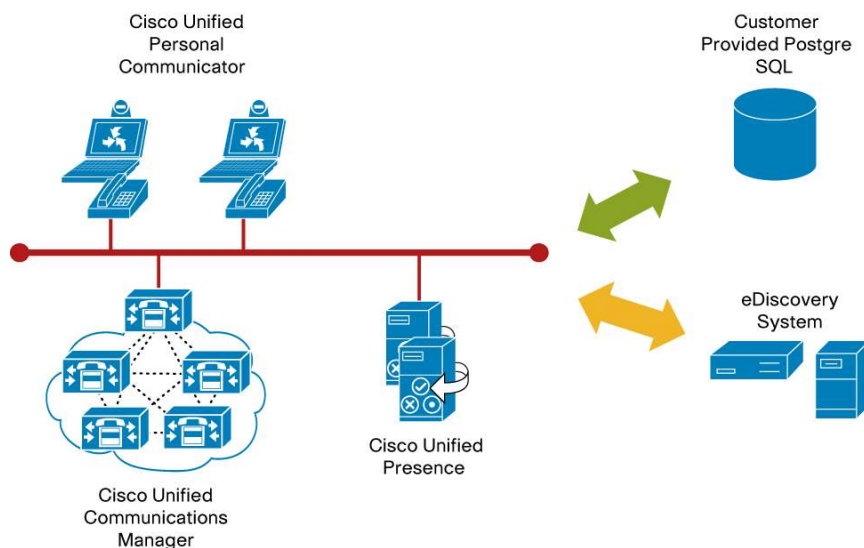
Presence and Instant Messaging Federation

IM and presence users would like to be able to send an IM to anybody, regardless of whether or not the recipients are in their business or service environment. Presence and IM federation allows you to do just that - communicate with others who have a different IM service to solve business communication needs in real time.

Interdomain federation is the secure, policy-controlled IM and presence communication between environments that have different domain names, such as user@gamma.com to user@delta.com (Figure 3).

Business-to-business and business-to-consumer federation creates the way for IM and presence users to communicate outside of their enterprises and still ensure secure, policy-controlled, transparent communication.

With Cisco Unified Presence, this capability is delivered between organizations that are both running Cisco Unified Presence, or when one organization is using Cisco Unified Presence and the other is using Cisco WebEx® Connect, Microsoft Live Communications, Microsoft Office Communications Server (OCS, LCS, or Lync), IBM Sametime, or any Jabber Extensible Communications platform.

Cisco Unified Presence also offers direct business-to-consumer federation such as GoogleTalk and AOL. It allows the enterprise to connect to GoogleTalk users and XMPP cloud-based services to share presence and instant messages. Cisco Unified Presence is an XMPP standards-based platform and hence allows federation with any other standards-based XMPP IM and presence service or gateway. Cisco Unified Presence can federate to AOL, including federation with users in the AOL base communities (user@aol.com and user@aim.com) as well as users in AOL hosted communities and enterprises that use AOL as a clearinghouse for federation.

Figure 3. Cisco Unified Presence Interdomain Federation
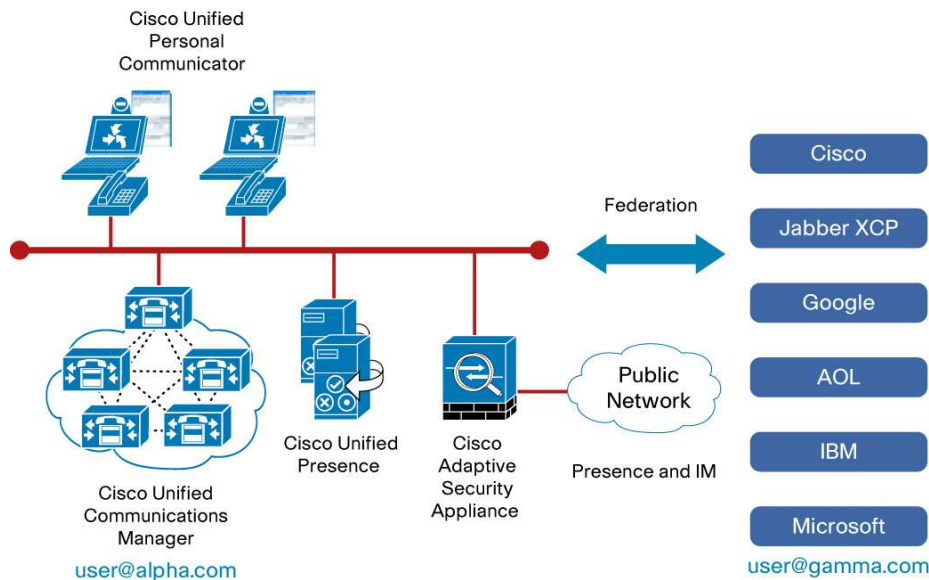
New in Cisco Unified Presence 8.6, intradomain federation is supported between Cisco Unified Presence and Microsoft Office Communications Server (OCS) or Microsoft Live Communications Server (LCS). Intradomian federation provides for transparent IM and presence among all users in the same company. You can mix and match Cisco and Microsoft Unified Communications clients for different communities of users (as shown in Figure 4).

Figure 4. Cisco Unified Presence Intradomain Federation with Microsoft OCS or LCS for IM and Presence
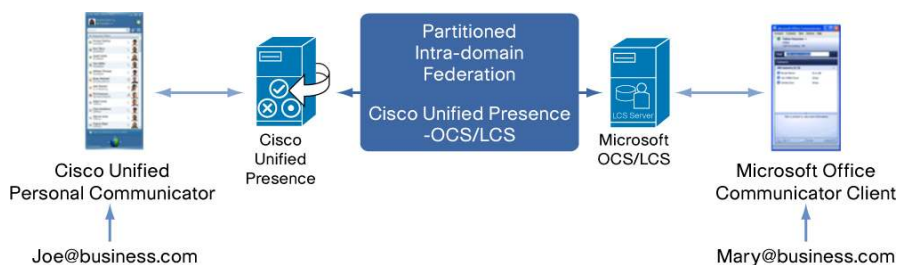
Cisco Unified Presence High Availability

Cisco Unified Presence offers you the ability to deploy in a fully redundant, high-availability mode. The internal Cisco Unified Presence Server Recovery Manager monitors all critical processing within Cisco Unified Presence (such as the message routing, presence engine updates, and database access) and performs a graceful failover of all subtending users to the partner node within a sub-cluster if a process failure occurs. Upon reestablishment of the failed node, Cisco Unified Presence supports a manual fallback to the original primary node for all users who migrated to the partner node during the failover (Figures 5 and 6).

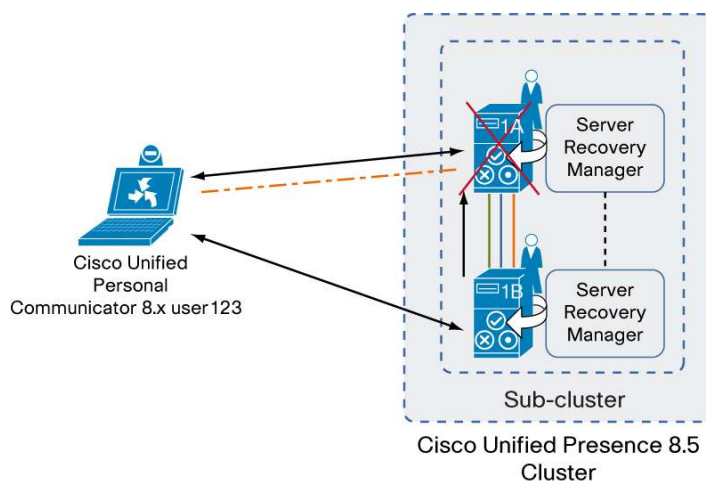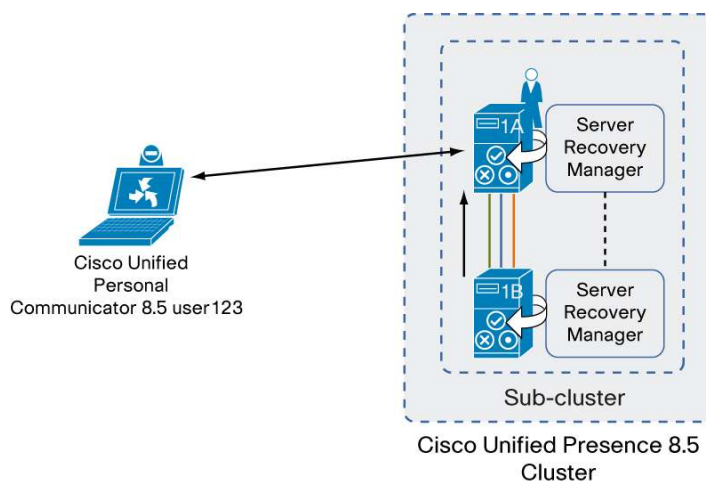**Figure 5.**   Cisco Unified Presence Failover Support

Figure 6.   Cisco Unified Presence Fallback Support

Cisco Unified Presence Client Experiences

Cisco Unified Presence supports a wide range of Cisco and third-party desktop and mobile standards-based XMPP-compatible presence and IM clients (Table 2). The client feature set offered to users may vary slightly, based on the unique characteristics of each client. Therefore, XMPP allows you to mix and match multiple clients to meet your individual solution requirements.

Cisco Jabber (including Cisco Unified Personal Communicator) provides a rich desktop unified communications experiences, supporting IM, presence, video, desktop phone control, and soft phones with rich collaborative integrations into Cisco Unity® and Cisco Unity Connection applications. It also allows for escalation to collaborative desktop sharing into Cisco WebEx and Cisco Unified MeetingPlace® applications.

Customers who require a secure, policy-controlled, rich IM and presence solution as part of their enterprises but do not require a full unified communications experience can also deploy Cisco Unified Presence in IM-only-user mode (refer to the section "Mode of Operation" for details).

Mobile workers increasingly need to be connected to the enterprise. They can use Cisco Jabber (including Cisco Mobile) or Cisco Unified Mobile Communicator embedded in a smart mobile device to connect and then get and set presence to Cisco Unified Presence, breaking the boundary of the enterprise and remaining connected and part of it despite being mobile.

Standards-Based Application Programming Interfaces

Cisco Unified Presence provides standards-based connectivity to any XMPP- or SIP/SIMPLE-capable application or network. In effect, you can request user status that is maintained in the Cisco Unified Presence engine by using the IETF standards for IM, status, and presence sharing. The XMPP and SIP/SIMPLE standards define the accepted messaging to initiate and maintain a status request as well as to provide appropriate messaging communications. The Cisco Unified Presence engine collects and distributes network-based rich presence information, as defined by the needs of the services deployed.

Cisco Unified Presence also supports web-centric application programming interfaces (APIs) such as REST and SOAP, or the use of JavaScript, which enables Asynchronous JavaScript and XML (CAXL) applications. These APIs give IT departments and system integrators the simple but powerful ability to IM- and presence-enable their business applications; for example, exposing expert or user availability and IM on a corporate web directory, point-of-sale application, customer-relationship-management (CRM) system, or external customer portals. For details about the various APIs available, with all the necessary information required for their use, please refer to the Cisco Developer Network at: http://developer.cisco.com/web/cupapi/docs.

Cisco Unified Presence Interfaces

Table 2 lists the benefits of applications that interface to Cisco Unified Presence.

Table 2.   Cisco Unified Presence Applications

Cisco Unified Presence Interfaces	Benefit
Cisco Unified Personal Communicator	Cisco Unified Presence provides the core IM, presence, and buddy-list (contacts) support. It facilitates phone control, click-to-call services, as well as integration with Cisco WebEx and Cisco Unified MeetingPlace conferencing and Cisco Unified Messaging services. Built-in security mechanisms help ensure the integrity of personal information such as user passwords, network connectivity information, and buddy lists.
Cisco Jabber for Mac	Cisco Unified Presence provides the core IM, presence, and buddy-list (contacts) support for on-premises deployments. It facilitates phone control, click-to-call services, as well as integration with Cisco WebEx and Cisco Unified MeetingPlace conferencing and Cisco Unified Messaging services. Built-in security mechanisms help ensure the integrity of personal information such as user passwords, network connectivity information, and buddy lists.
Cisco Jabber IM for BlackBerry	These interfaces extend the reach of presence beyond the walls of the traditional enterprise to the mobile smartphone user. Cisco Jabber allows you to get and set presence information on Cisco Unified Presence, offering the values of Cisco Unified Communications to mobile workers.
Cisco Mobile for Nokia	These interfaces extend the reach of presence beyond the walls of the traditional enterprise to the mobile smartphone user. Cisco Jabber allows you to get and set presence information on Cisco Unified Presence, offering the values of Cisco Unified Communications to mobile workers.

Cisco Unified Presence Interfaces	Benefit
Cisco Unified Mobile Communicator	Cisco Unified Mobile Communicator extends the reach of presence beyond the walls of the traditional enterprise to the mobile smartphone user. Cisco Unified Mobile Communicator allows you to get and set presence information on Cisco Unified Presence, offering the values of Cisco Unified Communications to mobile workers.
Cisco Unified Presence with IBM Lotus Sametime	With Cisco Unified Presence with IBM Lotus Sametime, in addition to the presence status options provided in Lotus Sametime, you can also see phone presence indicators that show when a contact is on the phone. Easily delivered, this capability lets you choose the most efficient way to contact a person you need to reach and avoid needless interruptions and playing "phone tag".
Cisco Unified Application Environment	The Cisco Unified Application Environment allows you to rapidly develop and create applications without the complexity associated with programming languages or interfaces. Using Cisco Unified Presence and Cisco Unified Application Environment, you can easily expose and integrate user presence and device availability from Cisco Unified Presence to your business applications.
Cisco Quad™ software	Cisco Unified Presence provides core presence and IM functions for Cisco Quad software. Features include IM and presence information, as well as buddy-list (contacts) support. Cisco Quad software uses presence from Cisco Unified Presence for core presence in conjunction not only with IM, but also with various other web-based services provided within Cisco Quad software.
Cisco Cius™ business tablet	Cisco Unified Presence provides core presence and IM functions for the Cisco Cius business tablet. Features include IM and presence information as well as buddy-list (contacts) support. Cisco Cius software uses presence from Cisco Unified Presence for core presence in conjunction not only with IM, but also with various other web-based services provided within Cisco Cius software.
Cisco Jabber Software Development Kit (SDK)	Cisco Unified Presence can provide core presence and IM functions for web applications and portals. Refer to cisco.com/go/jabbersdk for details.

Cisco Unified Presence and Cisco Unified Communications Manager

Cisco Unified Communications Manager interfaces with Cisco Unified Presence to share the status of Cisco IP Phones registered to Cisco Unified Communications Manager. This capability helps you share your Cisco IP Phone status with colleagues who are monitoring your presence state, who will see automatic updates on their Cisco Unified Personal Communicator or presence-enabled application, depending on your Cisco IP Phone state. They then can choose the best mechanism to communicate with you; for example, through an instant message, voice call, or email message.

Microsoft Outlook Calendar Integration

Cisco Unified Presence can incorporate Microsoft Outlook Calendar free and busy data when publishing a user's availability. This feature helps you automatically maintain your availability and status information, and because it is based on a server-to-server integration, it is available to other users whether or not the originating user is logged in. The Microsoft Outlook Calendar feature requires the establishment of a gateway connection to the Microsoft Exchange Server and is compatible with Microsoft Exchange Server 2003, 2007, and 2010.

Cisco Unified Computing System Support

Cisco Unified Presence is supported as part of the Cisco Unified Computing System™ (Cisco UCS) platform. This application can help you reduce your total cost of ownership (TCO) by enabling you to consolidate the total number of physical servers required to support Cisco Unified Communications. VMware ESX and Storage Area Networking, both of which are tightly integrated with the Cisco UCS, are used in this release to deliver greater application-to-server density than possible with traditional media-convergence-server (MCS) platforms.

Cisco Hosted Collaboration Solution

Cisco Unified Presence is a core component of the Cisco Hosted Collaboration Solution (HCS). As part of the Cisco HCS, service providers can offer all the enterprise IM and presence services within Cisco Unified Presence to their customers and end users. Cisco Unified Presence is aligned with all the applications within the Cisco Collaborations and Communications Group (CCG) to provide the most efficient and most effective deployment models for service providers.

Platform Management, Security, and Support

Cisco Unified Presence uses the same platform infrastructure as Cisco Unified Communications Manager, following its appliance model principles. Cisco Unified Presence is a single software entity that provides access to administration with a GUI and allows initial setup and installation through a command-line interface (CLI) similar to those for other Cisco products.

Security

The security module of Cisco Unified Presence addresses internal environment security as well as external security among Cisco Unified Communications Manager, Cisco Unified Personal Communicator, and external applications. Cisco Unified Presence supports:

- Distribution of engine and proxy trust certificates to other nodes of a Cisco Unified Presence cluster through replication
- Adding trusted peers in SIP proxy Transport Layer Security (TLS)
- Automatic distribution of SIP proxy self-signed certificate or certificate authority root certificates

Serviceability

Cisco Unified Presence takes advantage of the same serviceability features as Cisco Unified Communications Manager. In addition, Cisco Unified Presence has enhanced capabilities in the areas of alarms, performance counters, debug and trace utilities, service activation, monitoring, and CLI.

Administration and Provisioning Interfaces

The following administration functions are supported:

- System administrator GUI for provisioning of system data and default end-user data
- Bulk Administration Tool (BAT) for ease of movement of end users in a multinode cluster environment
- End-user GUI for provisioning end-user service data

Product Specifications

You can deploy Cisco Unified Presence in various configurations, depending on the number of users and data center requirements, through an appliance model or through the Cisco UCS virtual model offering deployment choice and scaling flexibility.

Table 3 lists Cisco Unified Presence platform models and the maximum number of supported users per Cisco Unified Presence node or server in Cisco Unified Communications mode.

Table 3.　Cisco Unified Presence Platform Models and Maximum Number of Supported Users per Cisco Unified Presence Node or Server in Cisco Unified Communications Mode

Platform Models	Maximum Users
Cisco Unified Presence application software with Cisco MCS 7816 Media Convergence Server	1,000
Cisco Unified Presence application software with Cisco MCS 7825 Media Convergence Server	2,000
Cisco Unified Presence application software with Cisco MCS 7835 Media Convergence Server or Cisco UCS B- or C-Series equivalent	5,000
Cisco Unified Presence application software with Cisco MCS 7845 Media Convergence Server or Cisco UCS B- or C-Series equivalent	15,000

Note: Cisco Unified Presence 8.6 supports VMware deployments on qualified IBM and HP servers. Please refer to the Collaborations and Communications Group (CCG) Hardware Ordering Guide for details.

Cisco Unified Presence supports Cisco Unified IP Phone 6921, 6941, 6961, 7902, 7905, 7906, 7910, 7911, 7912, 7920, 7921, 7925, 7931, 7940, 7941, 7942, 7945, 7960, 7961, 7962, 7965, 7970, 7971, 7975, 8961, 9951, and 9971 models.

Business-to-business interdomain federation requires Cisco ASA 5500 Series Adaptive Security Appliances Software for presence and IM between Cisco Unified Personal Communicator and Microsoft Office Communicator users.

Ordering Information

For information about quoting Cisco Unified Presence, please refer to the Cisco Unified Communications ordering guide at: http://www.cisco.com/go/unifiedpresence.

This product is a part of Cisco Unified Workspace Licensing. Please visit http://www.cisco.com/go/workspace_licensing for more information.

For More Information

For more information about Cisco Unified Presence, please visit http://www.cisco.com/en/US/partner/products/ps6837/index.html or contact your local Cisco account representative.

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