

## Cisco Unified Presence 8.0

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 “Powered by Jabber”, part of the Cisco Unified Communications Solutions suite, is delivered on an appliance that provides standards based dual protocol enterprise instant messaging and 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 various desktop clients and applications. It enables Cisco Unified Personal Communicator, the Cisco Unified Communications enterprise desktop client, to perform numerous functions such as instant messaging, click to call, phone control, voice, video, and web collaboration. Cisco Unified Presence provides a unified presence service for Cisco Unified Mobile Communicator and other mobile clients. The solution also provides an integrated Instant Messaging and presence experience for various contact center applications. Cisco Unified Presence supports the interfacing of third party Extensible Messaging and Presence Protocol (XMPP) clients and has built in support for persistent chat. In addition, it provides Cisco Unified Communications Manager telephony presence for IBM Sametime and telephony enablement of Microsoft Office Communicator.

Cisco Unified Presence offers customers and partners the flexibility of rich, open interfaces that allow enablement of Instant Messaging and presence to enable business applications.

### Product Overview

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

Cisco Unified Presence takes the rich feature set of the Jabber Extensible Communications Platform (XCP) and delivers it as part of Cisco Unified Presence. Using this Jabber technology it delivers enhanced enterprise instant messaging features, including group chat, persistent chat, and IM logging, along with a suite of business-to-business and business-to-consumer Instant Messaging and presence open federations.

Cisco Unified Presence lays the foundation to deliver enterprise instant messaging and 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 Jabber 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 Unified Communications clients or any third party XMPP compliant instant messaging and presence client.

Cisco Unified Presence also supports presence oriented Simple Object Access Protocol (SOAP) and Representational State Transfer (REST) interfaces. In addition, Cisco Unified Presence enables integration through Cisco XMPP Libraries, which is a Java script presence and Instant Messaging interface that allows customers and application developers to extend presence and Instant Messaging to web based applications.

## Cisco Unified Presence Modes of Operation

Table 1 lists the maximum capabilities of Cisco Unified Presence, which has four 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 instant messaging 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 Unified Personal Communicator, Cisco Unified Mobil Communicator, Cisco Unified Expert Advisor, and Cisco Agent Desktop, as well as 3rd party XMPP standard based clients. When operating in Cisco Unified Communications mode, Cisco Unified Presence scales up to a maximum of 15,000 users in a multinode cluster environment.
- **IM-only-user mode:** Cisco Unified Presence provides an enterprise class instant messaging and presence solution that can be deployed to non Cisco Unified Communication Manager users. In IM-only-user mode, Cisco Unified Presence supports Cisco Unified Personal Communicator for all enterprise class instant messaging and presence services. Cisco Unified Presence also supports the ability for 3rd party XMPP standard based clients to interface to Cisco Unified Presence for instant messaging and presence services. When operating in Cisco IM only user mode, Cisco Unified Presence scales up to a maximum of 45,000 users in a multinode cluster environment.
- **SIP proxy mode:** In this mode, Cisco Unified Presence provides the core Session Initiation Protocol (SIP) routing capabilities for deployment of large scale Cisco Unified Customer Voice Portal (CVP) solutions. This routing capability connects the entire suite of contact center products as well as public switched telephone network (PSTN) gateways and session border controller (SBC) elements. SIP proxy mode can scale from 100 to 1,000 transactions per second based on the server size and configuration options (such as Record Route on/off).
- **Microsoft Office Communicator interoperability mode (or Microsoft Remote Call Control):** In this mode, Cisco Unified Presence allows Microsoft Office Communicator 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 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	15,000 <sup>1</sup>
IM Only User mode	45,000 <sup>1</sup>
Microsoft Office interoperability mode	20,000 <sup>2</sup>
SIP proxy mode	Up to 1,100 transactions per second

## Features and Benefits

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

<sup>1</sup> In these mode of operations, there is no administrative limit. The Maximum number of users is based on validation of Cisco Unified Presence service on an expected user profile.

<sup>2</sup> In this mode of operation, Cisco Unified Presence operates as an interface point. Capacities for Microsoft Office interoperability mode are based on limits defined for a Cisco Unified Communication Manager cluster.

## Enterprise Instant Messaging

Feature rich enterprise Instant Messaging is an important real time communications medium for customers; it introduces another mode of communication between 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, groups and conduct on-going conversations.

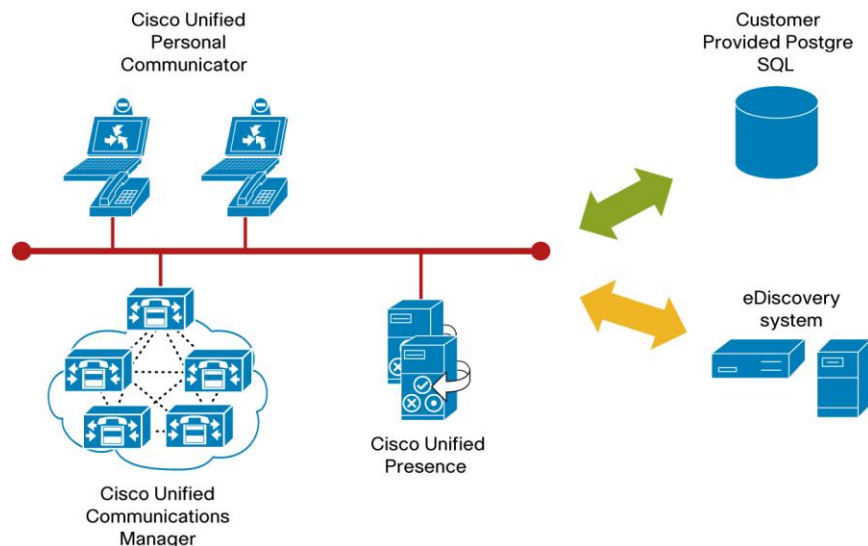
- Group chat<sup>3</sup> allows you to create a temporary Instant Messaging enterprise chat room and invite internal and external colleagues to the enterprise chat room to join in an instant message conference.
- Persistent chat<sup>4</sup> is different from group chat in that the chat room is available even if no one is currently in the chat and remains available until explicitly removed from the system. It offers users ongoing access to the chat room to allows teams, customers, partners, suppliers, and colleagues to communicate to quickly gain context to ongoing conversations and to easily collaborate in real time.

## Enterprise Instant Messaging Compliancy and Archiving

If Instant Messaging compliancy and archiving is unmanaged, it is impossible to protect against outside threats or to ensure efficient and appropriate use of Instant Messaging. Sometimes it is necessary to store these instant message records for future recovery and analysis by regulatory authorities and also to mitigate against the risks associated with information security breaches. Cisco Unified Presence 8.0 introduces the ability to meet these requirements in two ways:

- Provides for logging of instant message records in a customer managed and provided Postgresql database
- Delivers an interface to third party Instant Messaging and compliancy engines that provide an interface to customer provided eDiscovery solutions

**Figure 1.** Cisco Unified Presence Instant Messaging Compliancy



## Cisco Unified Presence Federation

Interdomain federation is the secure, policy controlled Instant Messaging and presence communication between environments that have different domain names, such as [user@gamma.com](mailto:user@gamma.com) to [user@delta.com](mailto:user@delta.com) (Figure 2).

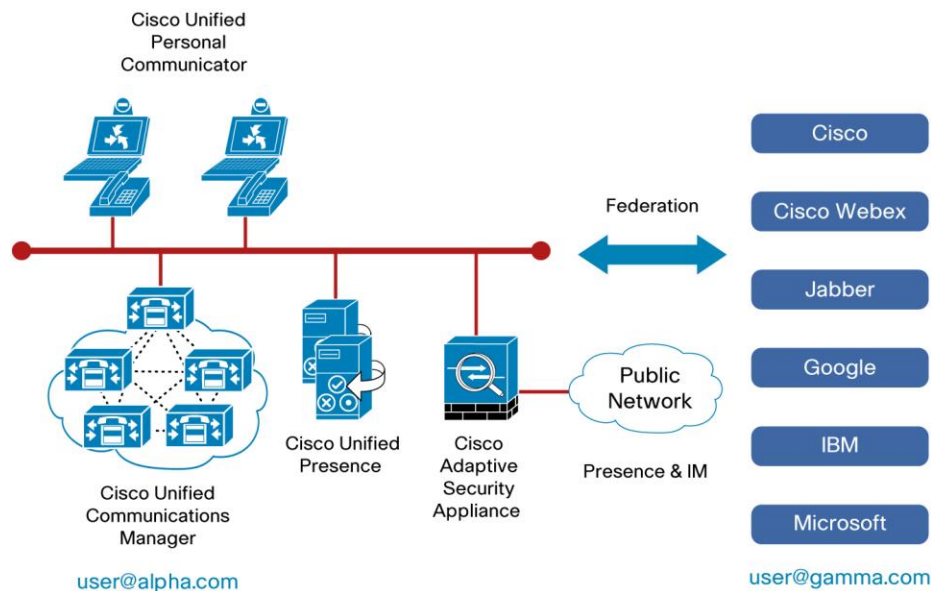
<sup>3</sup> Cisco Unified Presence supports group and persistent chat across federated links when interfacing with XMPP domains that support the group and permanent enterprise chat room feature.

Business-to-business and business-to-consumer federation creates the way for Instant Messaging 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), IBM Sametime, or any Jabber Extensible Communications Platform.

Cisco Unified Presence<sup>4</sup> also offers direct business-to-consumer federation with Googetalk, allowing the enterprise to connect to Googetalk users and share presence and instant messages.

**Figure 2.** Cisco Unified Presence Interdomain Federation



### Cisco Unified Presence Client Experiences

Cisco Unified Presence offers customers many communication client options. The client a customer uses depends on the services or environment in which the customer deploys Cisco Unified Presence. Cisco Unified Presence allows the ability to mix and match clients depending on the needs of the enterprise.

Cisco Unified Personal Communicator (Mac and PC) provides one of the richest desktop unified communications experiences, supporting Instant Messaging, 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.

Mobile workers often need to be connected to the enterprise, and they can use 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 on the move.

Customers who require a secure, policy controlled, rich Instant Messaging and presence solution as part of their enterprises but do not require a full unified communications experience can also deploy Cisco Unified Presence. Cisco Unified Presence supports the connection of third party desktop and mobile XMPP clients that comply with the XMPP standard to get access to the integrated Instant Messaging and presence services of Cisco Unified Presence.

<sup>4</sup> Cisco Unified Presence is an XMPP standards based platform and hence will federate with any other standards based XMPP Instant Messaging and presence service or gateway. Cisco has not tested with other XMPP services or gateways.

First call resolution is a critical part of any contact center interaction. Cisco Unified Presence in conjunction with Cisco Unified Expert Advisor enables contact centers to deliver on first call resolution to increase productivity by allowing an agent or a self service interactive voice response (IVR) application to automatically engage an expert using presence if the customer needs expert assistance in closing out on an inquiry.

### 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 instant message, status, and presence sharing. These XMPP or SIP/SIMPLE standards define the accepted messaging to initiate and maintain a status request and to provide appropriate responses. The Cisco Unified Presence engine can collect and distribute status information, depending on 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 (AJAX) applications. These APIs give IT departments and system integrators the simple but powerful ability to instant message and presence enable their business applications; for example, exposing expert or user availability and Instant Messaging on a corporate web directory, point of sales application, customer relationship management system, or external customer portals.

### 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
<b>Cisco Unified Personal Communicator</b>	Cisco Unified Presence is required to support the core functions for Cisco Unified Personal Communicator. Features include Instant Messaging, presence information, and buddy list (contacts) support. Cisco Unified Presence also facilitates phone control and monitoring for click-to-call services as well as integration with Cisco Unified MeetingPlace conferencing and the Cisco Voice Messaging service. Security mechanisms help ensure the integrity of this personal information with such controls as user passwords, network connectivity information, and personal contact or buddy lists.
<b>Cisco Unified Mobile Communicator</b>	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.
<b>Cisco Unified Expert Advisor</b>	Cisco Unified Expert Advisor expands the scope of the contact center by allowing presence enabled enterprise knowledge workers to handle incoming customer calls without the need for the rigid tools and business rules typically found in formal contact centers. It allows subject matter experts anywhere in your enterprise to be available to handle incoming customer calls when needed and in conjunction with the contact center agent.
<b>Cisco Unified Presence with IBM Lotus Sametime</b>	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. This capability is easily delivered and lets you choose the most efficient way to contact a person you need to reach and avoid needless interruptions and playing "phone tag".
<b>Cisco Unified Application Environment</b>	The Cisco Unified Applications 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 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 feature 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 maintain your availability and status information automatically, 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 works with both Microsoft Exchange Server 2003 and Microsoft Exchange Server 2007.

## Cisco Unified Computing System Support

Cisco Unified Presence 8.0 now is supported as part of the Cisco Unified Computing System (UCS) platform. This application can help customers reduce their total cost of ownership (TCO) by enabling them 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.

## SIP Proxy Services for Cisco Customer Voice Portal

Cisco Unified Presence provides the SIP proxy services needed to support large Cisco Unified Customer Voice Portal 4.0 (and higher) deployments. Centralizing the Cisco Unified Customer Voice Portal dial plan using Cisco Unified Presence helps reduce initial setup time and ongoing administration of the Cisco Unified Communications Solution.

## 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 command line interface (CLI).

### Administration Interfaces

The following administration functions are supported:

- System administrator GUI for provisioning of system data and default end user data
- Bulk Administration Tool 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 install Cisco Unified Presence on any of the Cisco MCS 7816 (Cisco Unified Presence Small), MCS 7825 (Cisco Unified Presence Small), MCS 7835 (Unified Presence Medium), and MCS 7845 (Cisco Unified Presence Large) Media Convergence Server platforms. Cisco Unified Presence 8.0 is also supported on the Cisco UCS B200M1 Blade Server for VMware installations.

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 Supported Users per Cisco Unified Presence Node or Server in Cisco Unified Communications mode

Platform Models	Maximum Users
Cisco Unified Presence Small (Cisco MCS 7816 Media Convergence Server)	500
Cisco Unified Presence Small (Cisco MCS 7825 Media Convergence Server)	1,000
Cisco Unified Presence Standard (Cisco MCS 7835 Media Convergence Server)	2,500
Cisco Unified Presence Advanced (Cisco MCS 7845 Media Convergence Server)	5,000
Cisco Unified Presence Advanced VMware (Cisco UCS B200M1 Blade Server)	5,000

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 Release 8.3 for presence and Instant Messaging 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 Communication Business Unit 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](http://www.cisco.com/go/workspace_licensing) for more information.

## For More Information

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



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