

Cisco Unified Presence 7.0

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 is a standards-based platform that collects information about a user's availability and communications capabilities to provide unified user presence status and facilitate presence-enabled communications for Cisco Unified Communications and critical business applications. With this scalable and easy-to-manage solution, Cisco Unified Presence delivers a consistent presence-enabled communications experience across Cisco Unified Communications applications everywhere, every time, independent of user device, application, or workspace location. In addition, Cisco Unified Presence gives customers and partners the flexibility to presence-enable and streamline business communications by interoperating with critical business applications through open interfaces.

Product Overview

Cisco Unified Presence takes advantage of Session Initiation Protocol (SIP) technology to support new voice services in the 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, Cisco Unified Presence uses SIP for Instant Messaging and Presence Leveraging Extensions (SIMPLE) technology to support instant messaging and presence. Cisco Unified Presence also supports presence-oriented Simple Object Access Protocol (SOAP) and Representational State Transfer (REST) interfaces, providing customers and application developers the ability to extend presence to web-based business applications.

Cisco Unified Presence consists of a SIP presence and instant messaging engine and a SIP proxy function. The presence engine collects user presence information (such as busy, on the phone, idle, away, or available status) as well as user capabilities (such as the capability to support voice, video, instant messaging, and web collaboration) and compiles the data in a repository for each user. This repository is accessed by the applications and features that each user employs. Users can apply unique user rules and privacy to help ensure that only authorized applications and users have access to presence information. The SIP proxy function facilitates efficient and accurate routing of both presence and general SIP messaging through the enterprise.

Cisco Unified Presence is tightly integrated with various desktop clients and applications. It helps Cisco Unified Personal Communicator, the Cisco Unified Communications enterprise desktop client, to perform numerous functions such as instant messaging, click to dial, phone control, voice, video, and web collaboration. In addition, Cisco Unified Presence provides a unified presence service for Cisco Unified Mobile Communicator, instant messaging service for Cisco Unified IP Phones connected to Cisco Unified Communications Manager, as well as providing the ability to integrate Cisco Unified IP Phone presence with IBM Lotus Sametime.

In a separate mode of operation, Cisco Unified Presence also supports interoperability with Microsoft Office Communicator, allowing this desktop application to operate in conjunction with Cisco Unified IP Phones supported on Cisco Unified Communications Manager.

Cisco Unified Presence Modes of Operation

Cisco Unified Presence has two modes of operation:

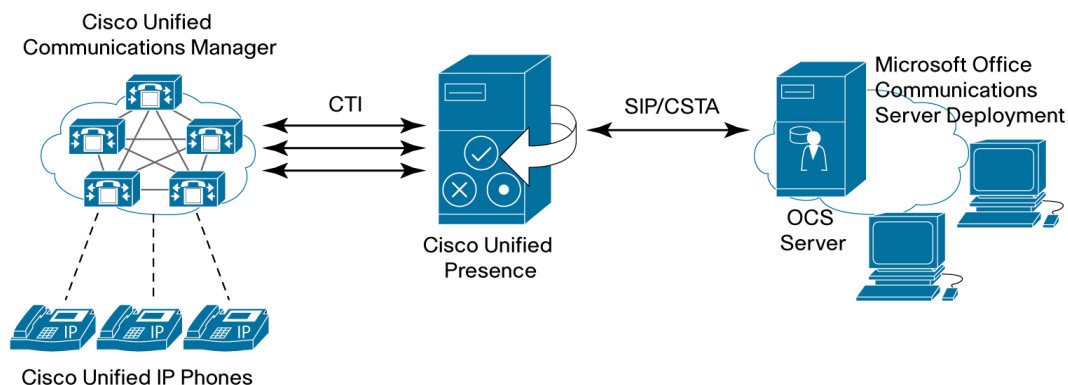
- **Cisco Unified Communications mode:** In this mode, Cisco Unified Presence operates as a SIP / SIMPLE presence server supporting Cisco Unified Communications clients such as Cisco Unified Personal Communicator and Cisco IP Phone Messenger. When operating in Cisco Unified Communications mode, Cisco Unified Presence provides presence, instant messaging, and click-to-call capabilities for Cisco Unified Personal Communicator from either a PC or MAC, and it scales up to a maximum of 30,000 users in a multi-node cluster environment.
- **Microsoft Office Communicator Interoperability mode (or Microsoft Client mode):** In this mode, Cisco Unified Presence provides Microsoft Office Communicator users on a PC ability to interoperate with Cisco Unified IP Phones on Cisco Unified Communications Manager by providing click-to-dial and associated phone-monitoring capabilities (refer to Figure 1). Interoperability is made available by activating Microsoft Client mode in Cisco Unified Presence and configuring Microsoft Office Communicator users. Cisco Unified Presence supports both Live Communication Server (LCS) 2005 and Office Communication Server (OCS) 2007 in this mode. When operating in Microsoft Client mode, Cisco Unified Presence scales up to 10,000 Microsoft Office Communicator users per Cisco Unified Presence server and Cisco Unified Communications Manager cluster.

Table 1. Cisco Unified Presence Maximum Capacities

| Mode of Operation | Maximum Users Supported |
|--|-------------------------|
| Cisco Unified Communications Mode | 30,000 |
| Microsoft Office Interoperability Mode | 10,000* |

*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.

Figure 1. Cisco Unified Presence in Microsoft Office Communicator Interoperability Mode



Features and Benefits of Cisco Unified Presence

The following sections discuss the features and benefits of Cisco Unified Presence.

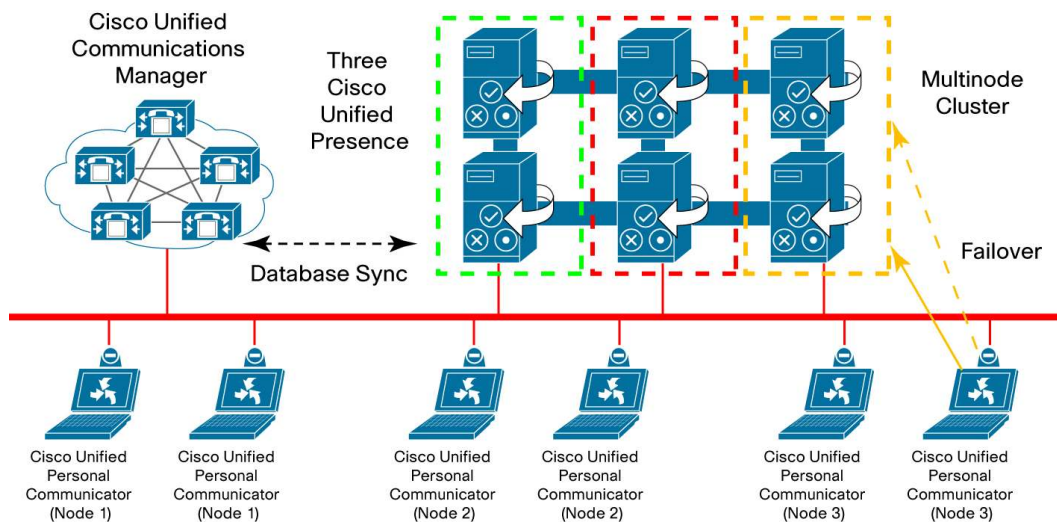
Enterprise-Class Scalability, Redundancy, and High Availability

Cisco Unified Presence provides enterprise-class scalability, redundancy, and high availability desired by large businesses and organizations.

Full and partial highly available deployment models provide redundancy and resiliency to facilitate persistent client connectivity, presence aggregation and distribution when unplanned system outages occur. This also provides flexibility to schedule maintenance with minimal or no service disruption. In the full high-availability deployment models, each live Cisco Unified Presence server instance is mirrored in real time to a backup server ready to take control over the user clients. Alternatively, partial high-availability deployment models support Cisco Unified Presence failover to a second live operational server that takes on the additional system load.

By networking up to three Cisco Unified Communications Presence groups together, Cisco Unified Presence delivers scalability for up to 30,000 active Cisco Unified Presence users in **Cisco Unified Communications mode**.

Figure 2. Cisco Unified Presence Multinode Clustering



Standards-Based Application Programmable Interfaces

Cisco Unified Presence provides a standards-based connectivity to any SIP/SIMPLE capable application or network. In effect, you can request any user status that is maintained in the Cisco Unified Presence engine by using the IETF standards for status and presence sharing. These SIP/SIMPLE standards define the accepted messaging to initiate and maintain a status request and to provide appropriate responses. The presence engine can collect and distribute status information, depending on the needs of the services deployed.

Cisco Unified Presence also supports web-centric application programmable interfaces (APIs) such as REST and SOAP. These APIs provide IT departments and system integrators with the simple but powerful ability to presence-enable their business applications; for example, exposing expert or user availability on a corporate web directory, point-of-sales application, or customer-relationship-management system.

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 Application Environment | The Cisco Unified Applications Environment provides a mechanism to allow 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 Personal Communicator | 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-dial services as well as integration with Cisco Unified MeetingPlace and Cisco's Voice Messaging service. Security mechanisms ensure the integrity of this personal information with such controls as user passwords, network connectivity information and personal contact or buddy lists. |
| Cisco Unified Expert Advisor | 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 |
| 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. 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". |
| Cisco Unified Application Environment | The Cisco Unified Applications Environment provides a mechanism to allow 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 Mobility Advantage | Cisco Unified Presence aggregates presence status and availability from Cisco Unified Communications Manager and Cisco Unified Mobility Advantage to provide single status and availability of users independent of whether they are using Cisco Unified Personal Communicator or Cisco Unified IP Phone at their desk or Cisco Unified Mobile Communicator on their mobile phone. |

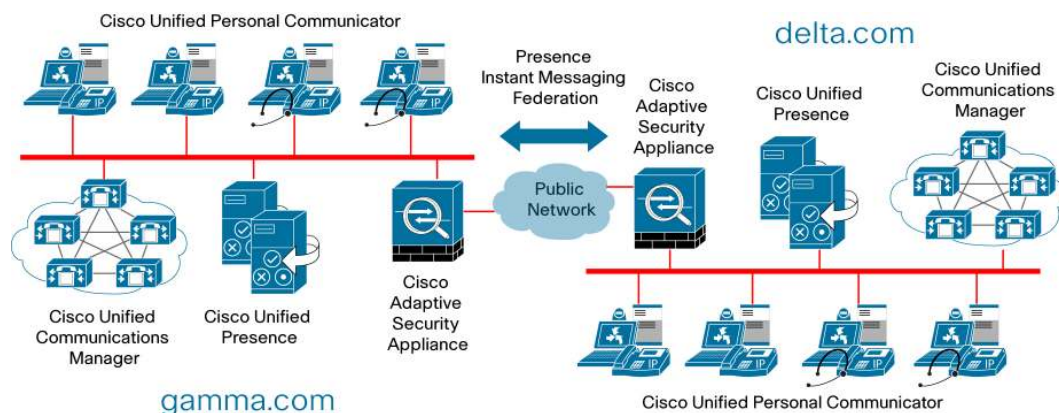
Microsoft Outlook Calendar Integration

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 the originating user is logged in or not. 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 Presence Federation

Federation is the secure, policy-controlled interconnection between different enterprises to enable them to securely exchange instant messaging and presence information between users in different businesses or organizations.

In Cisco Unified Presence this capability is delivered between organizations that are both running Cisco Unified Presence 7.0 as well as when one organization is using Cisco Unified Presence 7.0 and the other is using Microsoft Live Communications Server (LCS) 2005 and Microsoft Office Communications Server (OCS) 2007. This capability delivers secure, policy-controlled **Interdomain Federation** between environments that have different domain names, such as user@gamma.com to user@delta.com, as illustrated in Figure 3.

Figure 3. Business-to-Business Federation

VMWare Player Support

Cisco Unified Presence supports VMWare for nonproduction environments such as demonstrations, lab systems, and development environments. VMWare player support aligns with VMWare player capability available in Cisco Unified Application Environment.

SIP Proxy Services for Cisco Customer Voice Portal

Cisco Unified Presence provides the SIP proxy services needed to support large Cisco Customer Voice Portal 4.0 (and higher) deployments. Centralizing the Cisco 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 Cisco Unified Presence cluster through replication
- Adding trusted peer 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 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 movement of end-user in a Multi-node cluster environment
- End-user GUI for provisioning end-user service data

SIP and SIMPLE Presence Capabilities

The following presence functions and capabilities are supported:

- SIMPLE core functions (from RFCs 2778 and 2779)
- Presence Information Data Format (RFCs 3863 and 4480)
- Subscribe for presence
- Notify of presence
- Publish presence
- Watcher information and watcher information template package
- Presence event package
- Registration event package
- Resource list subscription
- Presence data information format and extensions
- Rich presence extensions
- Reachability rules and filtering
- Intercluster routing
- Federation

SIP Proxy Capabilities

The following capabilities for proxy of SIP messages are supported:

- SIP core proxy functions (from RFC 3261)
- Instant message routing
- Method- and event-based routing
- Domain Name System service (DNS SRV) record capabilities
- Asserted identity
- Diversion indication

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) platforms.

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) | 1000 |
| Cisco Unified Presence Standard (Cisco MCS 7835 Media Convergence Server) | 2500 |
| Cisco Unified Presence Advanced (Cisco MCS 7845 Media Convergence Server) | 5000 |

Cisco Unified Presence supports Cisco Unified IP Phone 7905, 7906, 7911, 7912, 7920, 7921, 7931, 7940, 7941, 7942, 7945, 7960, 7961, 7962, 7965, 7970, 7971 and 7975 models.

Business to Business Inter-Domain Federation requires Cisco ASA 5500 Series Adaptive Security Appliance Software Release 8.0.4 for presence and instant messaging between Cisco Unified Personal Communicator and Microsoft Office Communicator users.

Ordering Information

The ordering procedure for Cisco Unified Presence 7.0 has been modified to:

- Align with needs of compliancy within the enterprise environment
- Align with the Cisco Unified Personal Communicator licensing structure

These changes involve the introduction of the concept of the customer End User License Agreement. All new installs and upgrades to Cisco Unified Presence 7.0 now provide the customer with an End User License Agreement.

The ordering process for Cisco Unified Presence 7.0 also introduces the concepts of:

- A software bundle for new installs and Greenfield sites
- Preloaded servers with Cisco Unified Presence 7.0 software preinstalled to reduce time to operation of the Cisco Unified Presence platform

Cisco Unified Presence requires a media-convergence-server platform to load the Cisco Unified Presence software. You can also deploy Cisco Unified Presence on HP and IBM bare metal servers that have consistent criteria with the Cisco media convergence servers identified in Table 3.

To place an order, visit the Cisco Ordering Home Page and refer to Tables 4 through 6. To download software, visit the Cisco Software Center.

Table 4. Cisco Unified Presence Software – New Installs

| Description | Part Number |
|---|----------------|
| Cisco Unified Presence 7.0 Application Software | SW-CUP7.0-K9 |
| Cisco Unified Presence Server User Licenses | CUP-Server-LIC |
| Demo License Software | CUP7.0-K9-NFR= |

Table 5. Cisco Unified Presence – Small Installations with Preloaded Servers

| Description | Part Number |
|--------------------------------|-------------------|
| MCS 7825 PreLoaded Servers HP | MCS7825H3-K9-CUP7 |
| MCS 7825 PreLoaded Servers IBM | MCS7825I3-K9-CUP7 |

Table 6. Software Upgrade to Cisco Unified Presence 7.0 with End-User License Agreement

| Description | Part Number |
|------------------------------------|----------------|
| SW Upgrade from CUP 1.0 to CUP 7.0 | CUP1-7.0-U-K9= |
| SW Upgrade from CUP 6.0 to CUP 7.0 | CUP6-7.0-U-K9= |

This product is a part of Cisco Unified Workspace Licensing. Please visit http://www.cisco.com/go/workspace_licensing for more information and to determine whether Cisco Unified Workspace Licensing is appropriate for your customer.

Cisco Unified Communications Services

Cisco Unified Communications Services allows you to accelerate cost savings and productivity gains associated with deploying a secure, resilient Cisco Unified Communications Solution. Delivered by Cisco and our certified partners, our portfolio of services is based on proven methodologies for unifying voice, video, data, and mobile applications on fixed and mobile networks. Our unique lifecycle approach to services enhances your technology experience to accelerate true business advantage.

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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