

Cisco Unified Communications

More Effectively Connecting People to Improve the Communications Experience

Today's organizations must contend with increasingly complex communications environments featuring a wide array of communications methods. Employees, business partners, and customers communicate with one another through infinite combinations of phones, voice messaging, e-mail, fax, mobile clients, and rich-media conferencing. Too often, however, these tools are not used as effectively as they could be. The result is information overload and misdirected communications that delay decisions, slow down processes, and reduce productivity.

IP communications solutions have proven their ability to help organizations solve such problems, enabling them to streamline business processes and reduce costs. For years, companies of all sizes have been realizing the benefits that carrying voice, data, and video communications across a common, IP infrastructure can bring.



Today, with the Cisco[®] Unified Communications system of voice, video, and IP communications products, those benefits are greater than ever. Instead of simply connecting products, the Cisco Unified Communications system provides structure and intelligence that helps organizations securely integrate their communications more closely with business processes, and ensure information reaches recipients quickly, through the most appropriate medium.

Businesses can collaborate in real time using advanced applications such as video conferencing, integrated voice and Web conferencing, mobile IP soft phones, voicemail, and more—from an integrated, easy-to-use interface. The solution saves time and helps control costs, while improving productivity and competitiveness. In a 2005 Sage Research study, 86 percent of companies using unified communications reported that productivity benefits have grown. More than 60 percent reported savings of three or more hours per week for each mobile worker. Such studies confirm that migrating to a unified communications system provides a substantial return on investment (ROI) and a reduced total cost of ownership (TCO).

The Cisco Unified Communications portfolio is part of an integrated solution for organizations of all sizes that also includes network infrastructure, security, network management products, wireless connectivity, and a lifecycle services approach, along with flexible deployment and management options, financing packages, and third-party communications applications.

The Cisco Unified Communications System

With its broad portfolio, Cisco offers a solution to address any small, medium-, or enterprise-sized business requirement. And businesses can implement Cisco Unified Communications products at a pace that is right for them with flexible, transparent migration capabilities.

IP Telephony

Cisco Unified CallManager, the software-based call-processing component of the Cisco Unified Communications system, provides a scalable, highly available IP telephony call-processing solution. With its flexible deployment options, Cisco Unified CallManager can meet any need—from telecommuters, mobile workers, and distributed offices to the largest enterprise. With the ability to cluster multiple Cisco Unified CallManager servers and manage them as a single entity—a capability unique to Cisco—system capacity can scale to 1 million users in a network with 100 sites or more, with built-in redundancy to ensure reliable service. Cisco Unified CallManager comes with a host of innovative and robust features, including integration with Microsoft Outlook address books for simplified dialing, analysis, and reporting tools for detailed call records, a receptionist console, and conferencing calling.

Delivering call-processing options for organizations of all sizes, the company also offers Cisco Unified CallManager Express, an integrated call-processing system available inside Cisco access routers. It offers basic call routing and queuing, meet-me conferencing, paging, intercom, and more for small businesses and enterprise branch offices.

Although these standards-based systems work with an array of third-party phones, Cisco also offers one of the largest portfolios of IP phones in the industry. The portfolio includes the basic, business, and manager models of Cisco Unified IP phones including the new 24-button Cisco Unified IP Phone 7931G, the Cisco Unified Wireless IP Phone 7920, the Cisco Unified IP Phone 7985G video phone, and numerous Cisco Unified Communications clients.

Cisco Unified Communications Clients



Cisco Unified CallManager and Cisco Unified CallManager Express support numerous rich media client applications that further improve user productivity and streamline business processes.

Cisco Unified Personal Communicator, for Cisco Unified CallManager users, transparently integrates a variety of communication applications and services into a single desktop PC application. From an easy-to-use interface, it

gives users quick access to powerful communication tools that use information—voice, video, Web conferencing, call management, directories, and presence information—to help them communicate more effectively and be more productive. It streamlines the communication experience, enabling teams and knowledge workers to work smarter, faster, and more securely.

Another option, Cisco IP Communicator, is software that delivers advanced telephony functions to Microsoft Windows-based personal computers for Cisco Unified CallManager and Cisco Unified CallManager Express users. Wherever users can connect to the corporate network, the application provides high-quality voice calls, along with all the same features they have in the office, including call transfer, call forwarding, and conference calling. Users remain productive whether at the office, at home, or on the road.

Like Cisco Unified IP phones, Cisco IP Communicator also works with Cisco Unified Video Advantage, which combines software with the Cisco VT Camera to support video telephony. Cisco Unified Video Advantage lets users make calls using the familiar phone interface, with the video displayed on their PC. The Cisco video telephony solution is as simple to provision as any Cisco Unified IP phone, enabling a cost-effective, scalable, and visually interactive communications solution.

For Cisco Unified CallManager Express environments, the Cisco Unified CallConnector is a personal computer toolbar-based desktop solution that delivers easy-to-use call control and presence features to end users, enabling increased productivity and more effective communications. The Cisco Unified CallConnector uses toolbars within common applications such as Microsoft Outlook and Internet Explorer, providing transparent desktop integration and giving users new and easy ways to work smarter and faster.

Presence and Instant Messaging for Business

Cisco Unified Presence Server adds another layer of functions to tools, including the Cisco Unified Personal Communicator. Using dynamic presence information, users can check the availability of colleagues in real time, reducing “phone tag” and improving productivity. Cisco Unified Presence Server also provides a standards-based presence service that works with Cisco Unified IP phones connected to Cisco Unified CallManager. Support of open standards enables integration to other systems such as IBM Lotus solutions using Session Initiation Protocol (SIP) or (SIMPLE). Cisco Unified CallManager and Cisco Unified Presence Server also support Microsoft Live Communications Server 2005 and the Microsoft Office Communicator clients connected to Live Communications Server. In short, Cisco Unified Presence Server helps users quickly connect to their colleagues using the most appropriate communications medium at any given time.

The Cisco Unified CallConnector server on Cisco Unified CallManager Express delivers presence capabilities and instant messaging. It provides information about colleagues' location, availability, and phone status using the Cisco Unified CallConnector toolbars from within Outlook and Internet Explorer.

Voice and Unified Messaging

The power and reach of IP communications is also proven by Cisco Unity[®] messaging solutions. In addition to a powerful voice messaging system, the Cisco Unity solution helps users listen to their e-mail over the telephone; check voice messages from the Internet; and send, receive, or forward faxes to wherever they are. Individual users interact with the system in the way that is most comfortable and convenient for them, ultimately making them more responsive to customers. Voicemail, integrated messaging, and unified messaging options are available with the Cisco Unity solution, which is highly scalable to meet the needs of large enterprise organizations. Cisco Unity Connection, meanwhile, is tailored to meet the needs of organizations with up to 3000 users, with voicemail, integrated messaging, and advanced features such as speech-activated name dialing and voicemail browsing. Finally, Cisco Unity Express, available inside Cisco routers, supports up to 250 users. Each provides a cost-effective automated attendant with voicemail and integrated messaging options.

Rich-Media Conferencing

Cisco has a broad portfolio of conferencing solutions that are integrated within the Cisco Unified Communications system. These solutions help remote workers and teams communicate more effectively and reduce costs.

The Cisco Unified MeetingPlace[®] conferencing solution integrates voice, video, and Web conferencing capabilities to simplify initiation and management of productive remote meetings that can help accelerate projects, improve sales support, and speed decisions. The solution is deployed on network, behind the firewall, and integrated directly into an organization's private networks and enterprise applications, to provide significant cost savings, security, and a superior user experience. Intuitive interfaces make setting up, attending, and managing meetings easy. Integrated voice, video, and Web conferences can be set up and attended in a single step—from Cisco Unified IP phones, instant messaging (IM) clients, Web browsers, and Microsoft Outlook and IBM Lotus Notes calendars. The solution can be customer-managed or outsourced.

Cisco Unified MeetingPlace Express is an integrated voice and Web conferencing solution that helps medium-sized organizations realize the cost savings and productivity benefits of deploying conferencing over internal networks. The solution provides simple, powerful conferencing functions that are easy to deploy and manage and includes phone, Microsoft Outlook, and Web interfaces for setting up, attending, and managing meetings.

Cisco Unified Videoconferencing provides multiparty video conferencing for traditional room-based video conferencing as well as for Cisco Unified CallManager video telephony and Cisco Unified MeetingPlace deployments. The Cisco Unified Videoconferencing Manager provides the ability to efficiently manage and monitor video conferencing network elements and to easily schedule, scale, and control video conferences.

Cisco TelePresence is an innovative new technology that combines rich audio, high-definition video, and interactive elements to deliver a unique, “in-person” experience—over the network. It is designed to bring users closer to the important people, places, and events in their personal and professional lives.

The first application, the Cisco TelePresence Meeting solution, creates a live, face-to-face meeting experience, empowering users to interact and collaborate like never before. The Cisco TelePresence Meeting is built to be a completely different meeting experience, taking interaction and collaboration to a new level. Because it feels like everyone is in the same room, remote interactions are just as natural and effective as in-person communication, simplifying and accelerating information sharing throughout your organization—thereby reducing costs and maximizing revenue

Mobility Solutions

Cisco offers a variety of solutions for organizations with mobile workers in different work environments. Workers who are frequently mobile will appreciate Cisco Unified MobilityManager, featuring the Cisco Mobile Connect service, which helps them publish a single phone number to customers, colleagues, and partners and have calls routed to the device most convenient to them at that time: office, home, or mobile phone. The Cisco Mobile Connect service even helps workers transparently transfer a call from a cell phone to their office phone (or conversely) when they arrive at the office—without interrupting the call. While traveling, mobile workers can also access enterprise IP communications features, including using the corporate network to carry their calls, thus helping to keep costs down.

To extend mobility further, the Cisco Unified Communications system provides dual-mode support for a new category of mobile phone devices from Nokia and other vendors. These dual-mode phones support both Global System for Mobile Communications (GSM) cellular and Wi-Fi radios, and can be used for both data and voice applications. These dual-mode devices enable communications inside the business and with cellular networks elsewhere, for simple hand-off of communications between networks, keeping mobile employees connected.

Extending Applications Capabilities

Although Cisco Unified Communications applications meet a critical set of business communications needs, many customers operate in business-unique environments or vertical markets that require specialized applications. To meet these needs, Cisco works with leading-edge technology partners to provide the broadest selection of innovative third-party IP telephony applications and products.

In addition, Cisco supports the ability to develop and manage customized applications. Cisco Unified Application Environment allows development of innovative applications that help organizations integrate the telephony capabilities of Cisco Unified CallManager into the business processes for increased productivity. Cisco Unified Application Environment uses a simplified interface that makes developing applications intuitive for developers and reduces the need for specialized knowledge of telephony protocols.

Customer Contact Solutions



Cisco Unified Communications also includes new and exciting capabilities for customer contact centers, helping users readily handle large volumes of customer interactions, whether voice phone calls, e-mail, or Web-based communications. The comprehensive family of Cisco customer contact solutions—including the Cisco Unified Intelligent Contact Management and Cisco Unified Contact Center product offerings—offers superior service and results in increased customer satisfaction. Contacts are

routed to the most appropriate agent, based on business rules and objectives. Advanced computer-telephony-integration capabilities provide call-event and customer-profile information to an agent's desktop. With the flexibility afforded by products such as the Cisco Unified Mobile Agent, agents can work from home or while traveling.

With automated voice self-service solutions—including Cisco Unified Customer Voice Portal and Cisco Unified IP IVR (Interactive Voice Response)—many calls do not require agent assistance. Cisco voice self-service solutions use automated speech recognition and text-to-speech to enable callers to obtain personalized answers to increasingly complex questions and conduct business in new and innovative ways. Customers can, for example, pay bills, order products, and track deliveries—all without the costs of interacting with a live agent. With the voice Extensible Markup Language (XML) capabilities of Cisco Unified Customer Voice Portal, callers can access content also used in Web-based interactions, resulting in a consistent customer experience, regardless of the self-service media channel.

The Cisco Unified Customer Interaction Analyzer provides new and exciting insights into every customer interaction and has the potential to transform how call centers service and retain customers and how they recruit, train, coach, and measure customer service representatives.

Management Solutions

Using the Cisco Unified Communications Management Suite, businesses can actively monitor Cisco voice elements in the network to discover potential problems, maintain quality and user satisfaction, and help minimize service downtime.

Secure Unified Communications

Security for Cisco Unified Communications is a natural extension of the Cisco Self-Defending Network, which identifies, prevents, and adapts to threats from both internal and external sources. Only Cisco offers a comprehensive systems approach to security for unified communications by protecting all levels of a unified communications system: The infrastructure, call management, endpoints, and applications.

The Power Of The Cisco Intelligent Information Network

The Cisco Service-Oriented Network Architecture (SONA) is the architectural framework for the enterprise that guides the development of a more intelligent network that can virtualize applications and infrastructure resources across enterprise locations—resulting in greater applications speed, scale, and cost savings.

Cisco Unified Communications products take advantage of the intelligence embedded in a smart infrastructure, which is designed to carry any combination of voice, video, and data across the same links and through the same devices. It is also self-optimizing, self-protecting, self-healing, and application-aware, meaning system resources are allocated to maximize employee productivity and prevent downtime.

Cisco also helps ensure that its customers have a clear migration path to an IP-based system and a smooth transition from—or coexistence with—older equipment, including time-division multiplexing (TDM)-based telephony systems. Customers can work closely with Cisco—and its partners—to plan for future growth, simplify technology adoption, improve deployment time, and reduce overall costs.

Services, Support, and Partners

Using the Cisco Lifecycle Services approach, Cisco Systems and its partners offer a broad portfolio of end-to-end services to support the Cisco Unified Communications system. These services are based on proven methodologies for deploying, operating, and optimizing IP communications solutions. 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.

The Cisco partner network is extensive. Its certified strategic businesses, resellers, and service providers with the Cisco Powered Network designation can help ensure that organizations assess business needs, design the right solution, and facilitate implementation and maintenance to help ensure network availability. Cisco IP Communications Specialized Partners are uniquely qualified to help you implement the right solution to meet your business communication needs. Service providers with the Cisco Powered Network designation can implement and manage the Cisco Unified Communications service that is selected.

The Cisco Technology Developer Program, meanwhile, includes companies that foster innovation, help develop industry standards, and accelerate the integration of business-critical technologies into the Cisco network infrastructure. Their solutions, which are tested for interoperability with Cisco Intelligent Information Network infrastructure, address applications ranging from content networking and customer contact to security, storage, and wireless networking.

Accessibility

Cisco is committed to providing accessible solutions. The company recognizes that network resources must be accessible and usable by all employees, including people with disabilities. As a result, Cisco customers can fully realize the value of their diverse workforces. For more information about how the Cisco Unified Communications platform conforms to Section 508 of the Rehabilitation Act, go to <http://www.cisco.com/go/accessibility> or contact your Cisco account manager.

Flexible Financing

Cisco Systems Capital[®] Corporation offers financing programs, including leasing options, that can help companies acquire the Cisco technology they need today—without a major capital investment. With innovative, customized financing, companies can maximize cash flow, preserve capital budgets, gain tax advantages, reduce risk of obsolescence, and retain the flexibility to easily upgrade technologies as needs evolve. In fact, 80 percent of businesses now use leasing as an integral part of their business strategy.

Cisco Systems Capital Corporation can provide a wide range of solutions ranging from traditional fair market value and operating leases to very aggressive, advanced technology lease options. Bundles of advanced technologies with advanced services and ongoing maintenance provide one price point and one monthly lease payment. These leasing options help customers quickly deploy technology—at the lowest cost of ownership possible.

Measurable ROI

No matter how you finance your Cisco Unified Communications Solution, you are likely to be happy with the payback. Consider:

- A leading global technology company has nearly 8000 employees using Cisco Unified CallManager servers and Cisco Unified IP phones, and more than 900 employees using the Cisco Unified MeetingPlace solution, with 300 of them using Web conferencing. By replacing its third-party hosted conferencing services with the Cisco Unified MeetingPlace solution, the firm is saving millions. The company is also saving an average of 40 percent on all new wiring, because it has to run only one cable.
- A nonprofit social services organization with 900 Cisco Unified IP phones at 26 sites is saving nearly \$480,000 per year on voice-related operating expenses and \$200,000 on recurring long distance toll charges.
- By installing an IP-based voice and data network based on Cisco infrastructure, a startup investment research firm with 16 employees is saving about \$8500 per month in leased-line and Frame Relay charges.