

## 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 wired, wireless, and mobile 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, lack of agility, and misdirected communications that delay decisions, slow down processes, drive customers away, and reduce productivity. Ineffective communications also result in missed revenue opportunities because businesses are not prepared to quickly react to market changes.

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, mobility, and IP communications products, those benefits are greater than ever. Cisco Unified Communications offers a new way of communicating that is more personal and timely. 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, voicemail, and more—from an integrated, easy-to-use interface on a variety of devices—wired or wireless. 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).

Cisco Unified Communications gives companies the ability to efficiently access data on demand, to effectively interact with virtual teams all over the world, and to manage these interactions on the go in real time...as if you were everywhere at once. Every interaction is more valuable. Everyone is more efficient. All communications are more effective and secure. These capabilities allow you to excel in today's fast-paced world and give you the agility your business needs to continuously innovate and quickly adapt.

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 and mobile 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 Communications Manager, the software-based media-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 Communications Manager can meet any need—from telecommuters, mobile workers, and distributed offices to the largest enterprise. With the ability to cluster multiple Cisco Unified Communications Manager 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 Communications Manager 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 conference calling.

Delivering call-processing options for organizations of all sizes, the company also offers Cisco Unified Communications Manager Express, an integrated call-processing system available inside Cisco access routers. It supports up to 240 users and provides basic call routing and queuing, meet-me conferencing, paging, intercom, and more for small businesses and enterprise branch offices. In addition, Cisco offers the new Cisco Unified Communications 500 Series for Small Business, which is an all-in-one unified communications solution for up to 48 users. It integrates voice, data, video, security, and wireless into one platform and provides integration with existing desktop applications such as calendar, e-mail, and customer relationship management (CRM) and provides the ability at network locations for voice, video, and data networking.

Although these standards-based systems work with an array of third-party phones and dual-mode devices, 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 new Cisco Unified Wireless IP Phone 7921G, the Cisco Unified IP Phone 7985G video phone, and numerous Cisco Unified Communications clients.

#### **Cisco Unified Communications Clients**

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

Cisco Unified Personal Communicator, for Cisco Unified Communications Manager users, transparently integrates a user's most frequently used communication applications and services into a single, unified client. From an easy-to-use interface on the PC or Mac, it gives users quick access to powerful communication tools—voice, video, instant messaging (IM), 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 and faster.

Another option, Cisco IP Communicator, is software that delivers advanced telephony functions to Microsoft Windows-based personal computers for Cisco Unified Communications Manager and Cisco Unified Communications Manager 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 Communications Manager Express environments, the Cisco Unified CallConnector for Microsoft Office is a personal computer toolbar-based desktop solution that delivers easy-to-use call control and presence features to end users, enabling increased productivity. The Cisco Unified CallConnector for Microsoft Office uses toolbars within common applications such as Microsoft Outlook and Internet Explorer, providing transparent desktop integration and giving users new and easy ways to communicate more effectively.

For mobile devices, the Cisco Unified Mobile Communicator, extends the capabilities of Cisco Unified Communications Manager, Cisco Unity® Unified Messaging, and Cisco Unified MeetingPlace® conferencing to a variety of mobile phones, including those that run Symbian, Blackberry, Windows Mobile, and BREW operating systems.

### **Presence and Instant Messaging for Business**

Cisco Unified Presence 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 also provides a standards-based presence service that works with Cisco Unified IP phones connected to Cisco Unified Communications Manager. Support of open standards enables integration to other systems such as IBM Lotus solutions using Session Initiation Protocol (SIP) or Session Initiation Protocol for Instant Messaging and Presence Leveraging Extensions (SIMPLE). Cisco Unified Communications Manager and Cisco Unified Presence also support Microsoft Live Communications Server 2005 and the Microsoft Office Communicator clients connected to Microsoft Live Communications Server. In short, Cisco Unified Presence helps users quickly connect to their colleagues using the most appropriate communications medium at any given time.

In addition, the Cisco Unified CallConnector for Microsoft Office on Cisco Unified Communications Manager Express delivers presence capabilities and instant messaging. It provides information about colleagues’ location, availability, and phone status using the Cisco Unified CallConnector for Microsoft Office toolbars from within Outlook and Internet Explorer.

### **Voice and Unified Messaging**

Secure, proven and reliable, the Cisco Unity portfolio of messaging solutions is a foundational element in bringing unified communications to businesses of all sizes. These systems integrate with your existing environment and provide flexible deployment options to meet your organization’s needs. Cisco Unity Unified Messaging delivers powerful voicemail, integrated messaging, and

unified messaging that scales to meet the needs of large enterprise organizations and integrates with most traditional telephone and voicemail systems, allowing for a smooth migration to unified communications. Cisco Unity Connection is a feature-rich solution, with voicemail and integrated messaging options, that is tailored to meet the needs of organizations with up to 3000 users. For organizations with up to 500 users, Cisco Unity Connection is available as a single-server solution with Cisco Unified Communications Manager, further simplifying installation, maintenance, and support. Both the Cisco Unity system and Cisco Unity Connection feature robust auto-attendant functions, speech-recognition capabilities, intelligent routing rules, and an advanced set of easily customizable personalization options, so users can interact with the system in a way that is most comfortable and convenient for them. Cisco Unity Express, with voicemail, integrated messaging, and auto-attendant services, available with Cisco integrated services routers, is specifically designed for small to medium-sized offices, including branch offices with up to 250 users. Deployed at a branch office, Cisco Unity Express can function in a survivable configuration with centralized call control. It can also network back to a centralized Cisco Unity or Cisco Unity Connection site, allowing employees to communicate from one location to the other with ease and familiarity.

### **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 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, video, 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 MeetingPlace Express VT is a deployment option that is designed to extend the capabilities of Cisco Unified Communications Manager video telephony environments by enabling users to simply extend point-to-point voice and video communications to impromptu, multiparty voice, video, and Web conferences.

Cisco Unified Videoconferencing provides multiparty video conferencing for traditional room-based and desktop video conferencing. The solution connects three or more H.323, H.320, SIP, or Skinny Client Control Protocol (SCCP) video conference endpoints in a single, multiparticipant meeting.

The solution also enables multilocation video capabilities for Cisco Unified Communications Manager video telephony and Cisco Unified MeetingPlace environments and for Cisco TelePresence Meeting solutions. 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 increasing profitability.

### **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 Mobility for Cisco Unified Communications Manager or Cisco Unified CallConnector Mobility for Cisco Unified Communications Manager Express. These mobile features 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. In addition, workers can 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 keep costs down.

### **Extending Applications Capabilities**

Although Cisco Unified Communications applications meet a critical set of business communications needs, many customers operate in business-unique environments or industrial 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 Communications Manager 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 portfolio of Cisco customer contact solutions—including Cisco Unified Intelligent Contact Management and Cisco Unified Contact Center—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 Interactive Voice Response (IP IVR)—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. The open architecture of Cisco Unified Customer Voice Portal allows callers to access content also used in Web-based interactions, resulting in a consistent customer experience, regardless of the self-service media channel.

### **Management Solutions**

Using the Cisco Unified Communications Management Suite, businesses can actively monitor your Cisco Unified Communications solution to discover potential problems, maintain quality and user satisfaction, and help minimize service downtime. Having a management solution that manages the entire solution—from the Cisco Unified Communications applications to the routers, switches, and gateways—enables your team to be more productive and provide a higher level of service for your users.

### **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. Cisco Unified Communications solutions offer integrated security features such as encryption to prevent eavesdropping, secure messaging to protect who can access and receive messages, phone authentication to protect against unauthorized handsets connecting to the network, and call-control security to ensure phone service is not disrupted by malicious activity. Cisco Self-Defending Network security solutions enhance unified communications security by providing a secure network platform upon which voice over IP (VoIP) is deployed. Granular voice-traffic validation and inspection performed by firewall functions in Cisco routers and the Cisco ASA 5500 Series Adaptive Security Appliance ensure traffic that purports to be voice actually is voice—and that it is abiding by company security policy. Cisco Intrusion Prevention solutions provide an added layer of security by stopping hacking and virus and worm attacks before they even reach the VoIP infrastructure.

### **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**

Cisco Unified Communications Specialized Partners are uniquely qualified to help you implement the right solution to meet your business communication needs. More than 1600 Cisco Unified Communications Specialized reseller, integrator, and service provider partners around the globe sell, deploy, and support more than 90 percent of Cisco Unified Communications systems in the market today. Cisco offers three unified communications specialization levels to address the full spectrum of customer needs—Express, Advanced, and Master—where a channel partner must demonstrate greater sales, technical, and service capabilities at each level.

- The Cisco Express Unified Communications Specialization integrates critical solutions in converged data, voice, and video networking.
- The Cisco Advanced Unified Communications Specialization recognizes partners for their expertise in comprehensive, integrated network voice solutions.
- Partners that achieve a Cisco Master Unified Communications Specialization have the most in-depth technology skills and customer success for the most sophisticated, value-added Cisco voice solutions.

Using the Cisco Lifecycle Services approach, Cisco 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 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<sup>®</sup> Corporation offers financing programs, including leasing options, to 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.

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 Communications Manager 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.

## Cisco: The Leader In Business Communications

Cisco Unified Communications products let organizations tap the value of a converged IP network infrastructure, giving users more effective communication options and productivity-enhancing applications, while reducing the high maintenance costs of managing separate voice and data infrastructures. With its decade of experience in IP convergence, Cisco is uniquely qualified to team with the telecom and data professionals in your organization to create an effective, nimble, and visionary technology solution.

Cisco Unified Communications will streamline your business processes and boost productivity, reliability, and competitiveness—all while minimizing risk and enhancing your profitability. For more information about Cisco Unified Communications, visit <http://www.cisco.com/go/unified> or <http://www.cisco.com/go/unifiedcommunications>.

## Appendix

More information about Cisco Unified Communications system products is available at the following locations:

- Cisco Unified IP Telephony products: <http://www.cisco.com/go/unifiedipt>
- Cisco Unified Customer Contact products: <http://www.cisco.com/go/unifiedcc>
- Cisco Unified Communications applications: <http://www.cisco.com/go/ucapplications>

For more information about Cisco partners, visit: <http://www.cisco.com/en/US/partners/index.html>.

For more information about the Cisco Technology Developer Program and its members, visit: <http://www.cisco.com/web/partners/pr46/tdp/index.html>.

For more information about the accessibility of the Cisco Unified Communications system, visit: <http://www.cisco.com/web/about/responsibility/accessibility/index.html>.

For more information about financing options, visit the Cisco Systems Capital Corporation at: <http://www.cisco.com/go/ciscocapital>.

For more information about the Cisco Business Communications Solution for small and medium-sized businesses, visit: <http://www.cisco.com/youinc>.

For more information about Cisco Unified Communications Services, visit: <http://www.cisco.com/go/ipcservices>.

For more information about the Cisco TelePresence solution, visit: <http://www.cisco.com/go/telepresence>.

For information about managed services from service providers with the Cisco Powered Network designation that enable businesses to reduce costs, increase connectivity, and stay focused on their core business, visit: <http://www.cisco.com/go/managedservices>.

For more customer case studies, visit: [http://www.cisco.com/cdc\\_content\\_elements/networking\\_solutions/casestudies/](http://www.cisco.com/cdc_content_elements/networking_solutions/casestudies/).

For more information about the Cisco Intelligent Information Network and Cisco architectures, including Cisco Service-Oriented Network Architecture (SONA), Cisco Small Business Communications Architecture, and the Cisco IP Next-Generation Network (IP NGN), visit: <http://www.cisco.com/go/iin>.



**Americas Headquarters**  
Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA  
www.cisco.com  
Tel: 408 526-4000  
800 553-NETS (6387)  
Fax: 408 527-0883

**Asia Pacific Headquarters**  
Cisco Systems, Inc.  
168 Robinson Road  
#28-01 Capital Tower  
Singapore 068912  
www.cisco.com  
Tel: +65 6317 7777  
Fax: +65 6317 7799

**Europe Headquarters**  
Cisco Systems International BV  
Haarlerbergpark  
Haarlerbergweg 13-19  
1101 CH Amsterdam  
The Netherlands  
www-europe.cisco.com  
Tel: +31 0 800 020 0791  
Fax: +31 0 20 357 1100

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at [www.cisco.com/go/offices](http://www.cisco.com/go/offices).

©2007 Cisco Systems, Inc. All rights reserved. CCVP, the Cisco logo, and the Cisco Square Bridge logo are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn is a service mark of Cisco Systems, Inc.; and Access Registrar, Aironet, BPX, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, CCSP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Enterprise/Solver, EtherChannel, EtherFast, EtherSwitch, Fast Step, Follow Me Browsing, FormShare, GigaDrive, GigaStack, HomeLink, Internet Quotient, IOS, iPhone, IP/TV, IQ Expertise, the IQ logo, IQ Net Readiness Scorecard, iQuick Study, LightStream, Linksys, MeetingPlace, MGX, Networking Academy, Network Registrar, Packet, PIX, ProConnect, RateMUX, ScriptShare, SlideCast, SMARTnet, StackWise, The Fastest Way to Increase Your Internet Quotient, and TransPath are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or Website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0701R)