

Cisco Collaboration Solutions: Achieve Differentiated Business Value with Collaboration

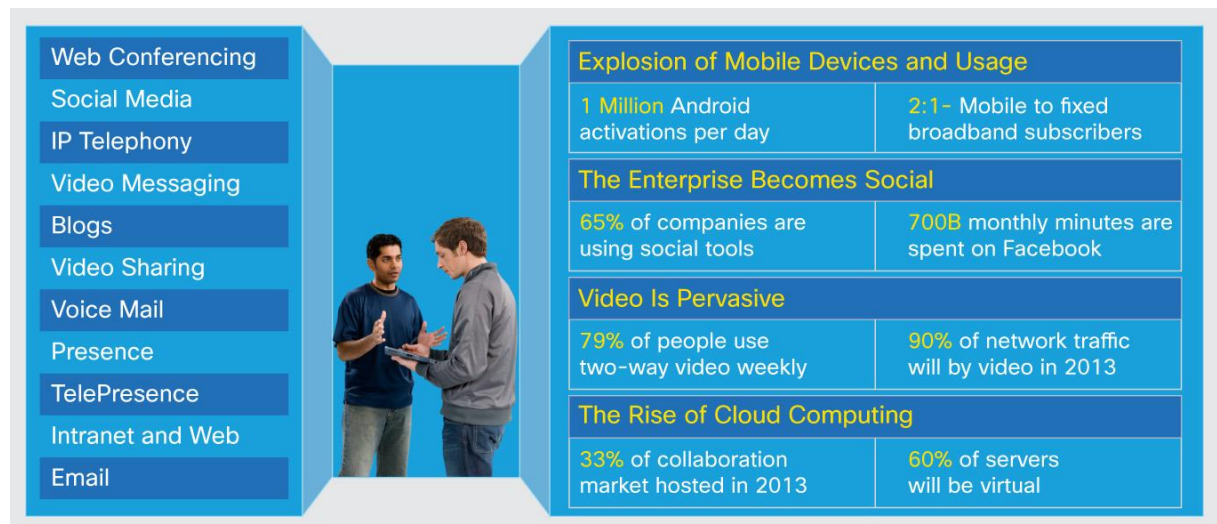
What You Will Learn

Businesses are transforming the way they operate internally, work with partners, and interact with customers. In this paper you'll learn about the trends that are driving business transformation. Also, Cisco's strategic direction defined in a collaboration architecture that delivers an integrated experience with a portfolio of products designed to allow you to start in any area and grow your collaboration strategy based on your priorities.

Challenges

Technology-enhanced collaboration is not new. Traditional text- and voice-centric forms of collaboration have been used for years, but increasingly they cannot by themselves address today's business challenges. Today, organizations of all sizes work closely with outside suppliers, partners, or contractors to deliver their own goods and services. Web 2.0 tools such as video portals, podcasts, blogs, wikis, and discussion forums are changing the way in which information is created, published, managed, and consumed. Technology advances and the need to work outside of normal business hours and locations foster an increasingly mobile and distributed workforce. An abundance of new devices and applications (Figure 1) is entering the corporate IT environment as employees choose to merge consumer-based tools with standardized communications. Global value chains, information overload, more mobile workforces, and IT consumerization are the "new normal" - and they require new collaboration capabilities.

Figure 1. Disparate Tools and Transformative Trends



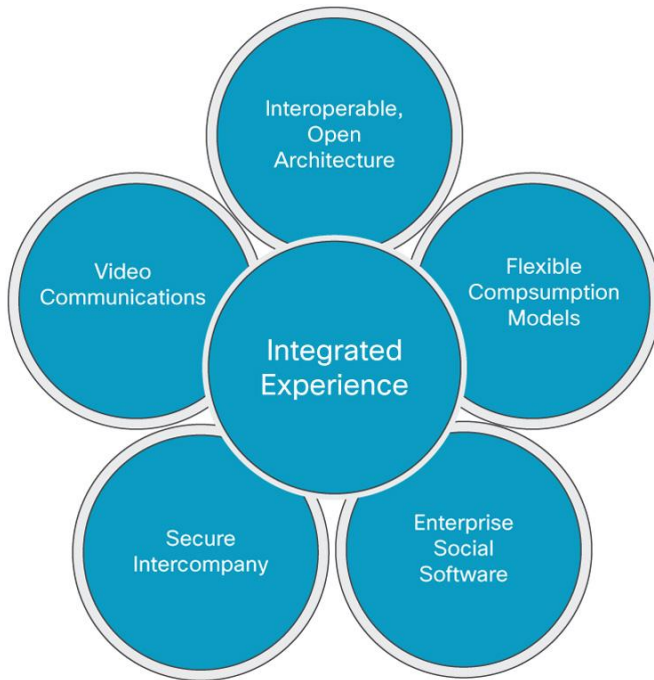
As the number of intra- and intercompany stakeholders increases, the number of collaborative tools and communication formats increases; in other words, the scope of collaboration must be broadened. It must combine document and text-centric collaboration such as email messaging, instant messaging, team workspaces, and conferencing with voice, video, and context to fully support the needs of the business.

Solution: Cisco Collaboration

The Cisco® vision for collaboration focuses on enabling new and better collaboration experiences that translate to tangible and differentiated business value (Figure 2) for your organization. To meet this vision, Cisco begins with the user experience and strategies for delivering a consistent and integrated experience across devices, applications, and workflows. The following principles define the strategic direction for the Cisco Collaboration portfolio:

- **An interoperable, open architecture:** As collaboration increasingly occurs across organizations and with people on the move, IT can no longer assume control of the devices and applications used in collaborative sessions. Cisco strongly believes that today's environment requires an interoperable, open architecture that allows any device or application to use a core set of collaborative services. This scenario includes other collaborative applications, business applications, custom applications that our customers or developers build with any of our development tools, and any third-party devices such as smartphones.
- **Secure intercompany collaboration:** Organizations will increasingly move from collaboration within functions, to intracompany collaboration, to intercompany collaboration. In this environment, secure collaboration with partners, suppliers, and customers as if they were behind the firewall is essential.
- **Video communications:** Globally dispersed teams and reduced travel budgets are part of today's business environment. Other than through a face-to-face meeting, video provides the most natural way to communicate. Video will become as easy to use as documents are today: easy to create, publish, search, edit, and repurpose.
- **Enterprise social software:** Today the power of social networks extends to the consumer world, with social networking surpassing email messaging as the fourth most popular online activity. The use of social networking applications is accelerated by the desire to connect and share with people with like interests. This same power will be harnessed for business productivity, delivering to business the ease of use, speed, and ubiquity that social networks offer in the consumer world, in combination with the security, availability, quality of service (QoS), and reliability required by the enterprise.
- **Flexible consumption models:** IT requires the flexibility to adjust to dynamically changing business and technology environments. Enterprise and IT architects do not make decisions in the context of whether services are consumed on premises or on demand, but seek to couple the robustness, security, and performance of the enterprise network with the openness and flexibility of collaboration through the cloud.

Figure 2. Cisco's Strategic Direction

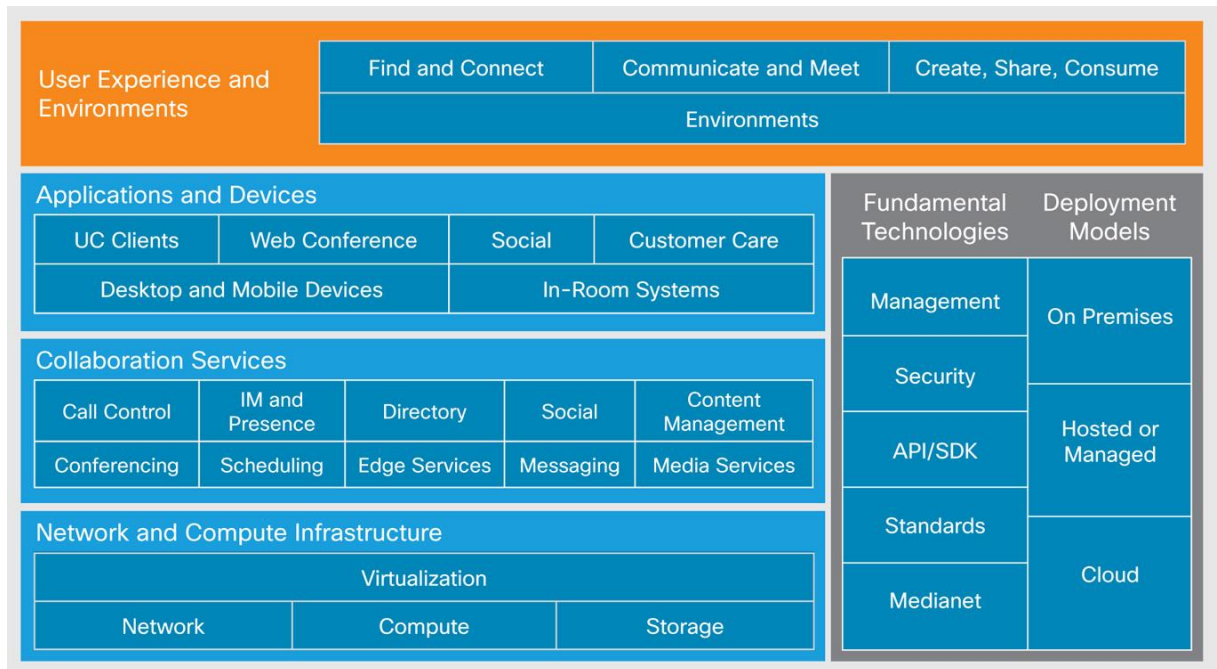


Cisco Collaboration Architecture

Cisco's open, interoperable architecture (Figure 3) powers the Cisco Collaboration portfolio and is based on these strategic principles. From the beginning, it is constructed to enable borderless collaboration, breaking down silos between content formats, between individual tools and devices, and between companies. Cisco recognizes the need for a combination of great software and purpose-built hardware to deliver the experiences that most effectively bring people together and is in a unique position to deliver a full-stack architecture. Yet at the same time, the Cisco Collaboration Architecture is based on the principles that heterogeneity is a fact of life, and so interoperability, openness, and customer choice are paramount. The Cisco Collaboration Architecture helps ensure interoperability among existing and new forms of communications and collaboration technologies, further enabling both structured and impromptu business processes.

The architecture is enabled through a set of flexible deployment models - on premises, hosted or managed, or provided as a cloud service, or a hybrid of all three - to meet the specific needs of an organization. These principles are actively implemented throughout our architecture.

Figure 3. Cisco Collaboration Architecture



Features of the Solution

The Cisco collaboration architecture consists of the following layers:

- User experience and environments:** The Cisco Collaboration Architecture begins with a focus on the user experience and environment. From a collaboration perspective, the day-to-day user experience consists of three collaborative workflows: users need to find and connect with people and information, users need to communicate and meet with people locally and across geographic boundaries, and users need to create any form of content so that it can be shared and consumed by others. In addition, these collaboration experiences occur in a variety of environments - office, home, and hotel environments, for instance - and while mobile in a plane, train, automobile, etc.
- Applications and devices:** The user experience depends on the applications and devices available to the users. Cisco has put considerable effort into developing applications that provide an integrated experience across platforms. Cisco Unified Communication clients such as the Cisco Jabber™ platform work on Microsoft Windows; Apple Macintosh, iPad, and iPhone; RIM Blackberry; and Android tablets and smartphones, providing employees with a consistent experience as they work from desktop and laptop computers, tablets, and mobile devices throughout the workday. Applications such as Cisco WebEx® Meetings for web conferencing run on these devices as well as on in-room systems, so participants can join a Cisco TelePresence® call not just from the room, but from any device and still have the experience of video and application sharing in a conference setting from their location.

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- **Collaboration services:** A critical element of Cisco Collaboration Architecture, this layer provides network-based services that are open, secure, and reusable across applications and platforms, whether from Cisco or third parties. These building blocks manage the special needs required to handle multimedia content and communications in a heterogeneous, real-time environment. They are designed to operate with true functional integrity, helping ensure their reusability. Well-defined APIs expose these services to a broad range of both Cisco and third-party collaboration applications. Any application can now be enabled for communication simply by a call to the desired service. These services can be embedded in business applications and workflows, streamlining tedious processes such as escalation of an instant message to a group chat, to a phone call, and to a web conference with application sharing.
 - **Network and computing infrastructure:** The foundation for the Cisco Collaboration Architecture, this layer enables connectivity, stores data, and serves applications. The network is in a unique position to host collaboration services and make them available reliably and consistently to all connected applications and devices, breaking down silos to streamline processes. Virtualization provides greater flexibility in the allocation of computing and storage resources. You can scale virtual machines up or down on demand, getting the most value from your investments. QoS helps ensure that user expectations are met by managing performance and meeting requirements for delivery of multimedia flows.
 - **Fundamental technologies:** A vertical layer that provides capabilities up and down the stack, these technologies are critical to delivery and management of the collaborative experience. Medianet services format video and other multimedia to best match the characteristics and capabilities of a user's specific situation, including bandwidth availability, codec, and device type. These services go beyond QoS to focus on quality of experience (QoE) for video. Cisco's ongoing commitment to standards allows you to integrate services into applications and servers, broadening their availability. Security services protect all layers of the architecture from constantly evolving threats and help ensure identity to enforce policy for intercompany collaboration. Cisco Prime™ management provides an end-to-end view of your network, technologies, and applications for simplified provisioning, detailed monitoring, and faster resolution of problems.
 - **Deployment models:** Deployment is a crucial consideration in any collaboration strategy, and providing flexibility is essential to the success of the Cisco Collaboration Architecture. Many capabilities are available from the cloud, deployed on premises, or available from a hosted or managed service provider. You can choose to use cloud-based Cisco Unified Communications services to meet time-to-market demands for a new territory and then over time migrate to an on-premises solution with the same services.

Cisco believes that successful delivery of the next-generation collaboration experience is not just a matter of desktop software or the latest social network or smartphone. It requires a full-stack approach and an acknowledgment that the underlying collaboration infrastructure can make the experience more natural and integrated, reduce IT complexity through greater reuse across silos, and deliver the superior reliability, scalability, and robustness expected of a true business solution.

Many business-critical collaboration capabilities - such as the capability to deliver high-quality interactions across and between companies, to transparently span cloud and on-premises delivery models, to translate real-time video and audio content into the right format and quality, and to locate expertise and discover information using social networking principles - are inherently well suited to a network-based architectural approach.

Together, these layers establish a collaboration core that enables compelling experiences both within and among organizations. It offers a consistent experience to end users, regardless of the device or client they use. It accounts for the variability and diversity in the broad range of devices and applications people use to get work done. It also gives IT the confidence to establish an investment roadmap with the knowledge that the Cisco Collaboration Architecture provides the flexibility to interoperate with new and future applications and devices.

Cisco Collaboration Portfolio

The Cisco Collaboration portfolio consists of the categories listed here, which encompass the product families that deliver the vision of the Cisco Collaboration Architecture.

Figure 4. Cisco Collaboration Portfolio



Note: This section includes a just a selection of products for illustration purposes. For a complete list, please visit <http://www.cisco.com/go/collaboration>.

- **Collaboration applications:** Cisco's collaboration applications provide a comprehensive, contextual, interactive environment that puts people - not applications or devices - back at the center of collaboration. Take advantage of an industry-leading collaboration platform, web conferencing, and productivity tools you can use from any location to help accelerate innovation and improve decision making.

Let users communicate more securely and effectively inside and outside your company with integrated tools that connect email, instant messaging, conferencing, presence, voice services, and voicemail. This device-independent approach enables users to take advantage of the same tools and integrated collaborative experience on their choices of devices, whether a PC, an iPhone or iPad, an Android smartphone, or some other device.

Visit the [Cisco Collaboration Applications webpage](#) to learn how this portfolio, along with services from Cisco and our partners, delivers an integrated collaborative experience to your users and optimizes your IT investments.

- **Customer collaboration:** Cisco customer collaboration creates a foundation for positive customer services, a primary factor in building a stronger business. It delivers intelligent contact routing, call treatment, network-to-desktop computer telephony integration (CTI), and multichannel contact management over an IP infrastructure. It combines multichannel automatic-call-distributor (ACD) functions with IP telephony in a unified solution, enabling your company to rapidly deploy a distributed contact-center infrastructure and better meet customer requirements for services and support.

Cisco customer collaboration products monitor the social web for relevant customer postings so that you can proactively identify concerns and engage with those customers. You can better build and manage your brand by responding to posts in a public environment.

Visit the [Cisco Unified Contact Center webpage](#) for more information about Cisco's suite of customer collaboration products, features, case studies, and more.

- **Telepresence:** The Cisco TelePresence® System allows you to redefine the way business gets done by giving your teams the power of in-person collaboration across boundaries to make business-critical decisions faster, develop new customer service models, train remote teams, and transform every part of your business that currently relies on in-room face-to-face meetings. Enable live face-to-face experiences using high-quality spatial audio and lifelike video in a specially tuned environment. You can collaborate, meet, share content, create high-quality video recordings and events, consult with experts, and deliver personalized services with an experience that is almost as good as being there.

The Cisco TelePresence System uses the standard IP technology deployed in corporations today and runs on an integrated voice, video, and data network. Use your current broadband connections to support high-quality, real-time voice and video communications between local and branch offices. Gain the benefits of the built-in intelligence and awareness of a medianet architecture, which provides new capabilities for delivering QoS, security, and reliability. In addition, you can increase availability for high-bandwidth applications, such as high-definition video conferencing.

Visit the [Cisco TelePresence System webpage](#) to learn how the highest-quality video conferencing can run on a variety of connected endpoints, including immersive, multipurpose, personal, and mobile endpoints, to meet each individual's immediate needs.

- **Unified communications:** Cisco Unified Communications provides voice, video, conferencing, messaging, instant messaging, and presence services for IP endpoints, media-processing devices, voice-over-IP (VoIP) gateways, mobile devices, and multimedia applications to deliver the vision of an integrated collaboration experience. With converged call control, video is managed as simply as voice is today, allowing you to extend video capabilities to your employees through a single, unified communications infrastructure from mobile devices, to desktop devices, to immersive telepresence rooms.

With a commitment to standards and interoperability, Cisco Unified Communications delivers people-centric user and administrative experiences while supporting the full range of collaboration services for Cisco and third-party devices and applications. You can now provide reliable and advanced communication capabilities to your staff in the post-PC era, no matter where they are working. Support bring-your-own-device (BYOD) initiatives, so that your users can work in the ways they prefer and be more productive.

Visit the [Cisco Unified Communications webpage](#) to learn how to transform your business interactions with real-time voice and video communications in a converged network environment.

Multiple Paths to Successful Collaboration

With Cisco's collaboration solutions, you can start at any point within the portfolio to match your organization's business needs. For example, you can start with conferencing to reach more customers with less travel, or customer care to increase customer intimacy. Whatever your requirements, Cisco enables you to begin at any point and move along your collaboration journey at a pace that matches your business needs and priorities.

Because of Cisco's architectural approach, when you are ready to add other capabilities, working with Cisco for additional solutions provides you with greater value and capabilities than if you were to choose point solutions from individual vendors.

For example, perhaps your first business priority is to increase customer reach while reducing travel. This scenario requires an enterprise-level solution for conferencing with customers and partners, so your organization chooses to begin with Cisco WebEx Meetings.

Next, you might move to unified communications to reduce maintenance costs, secure a voice upgrade path, and gain new capabilities by transitioning from your existing time-division multiplexing (TDM) private branch exchange (PBX). By subsequently introducing the Cisco WebEx Node for the ASR 1000 Series, to take advantage of Cisco ASR 1000 Series Aggregation Services Routers, you can provide the highest level of Cisco WebEx Meetings performance for all attendees, optimizing bandwidth and reducing WAN traffic for participants inside the firewall while continuing to use the real-time, global network of the Cisco WebEx collaboration cloud to best advantage through a powerful hybrid solution that blends the advantages of an onsite platform and a hosted solution.

Furthermore, if you later add the Cisco TelePresence System to achieve a comprehensive, lifelike meeting capability for customers and important partners, it takes full advantage of the same call-control capabilities that are part of your initial unified communications investment and integrates into your Cisco WebEx Meetings web conferencing solution, shortening the deployment time and reducing the IT operating expenses (OpEx) associated with the rollout of premium video-conferencing capabilities.

Conclusion

Tools for collaboration come in many forms. Wikis, blogs, virtual workspaces, video presentations, instant messaging, social networking sites, and voice and web conferencing are just a few. With this in mind, strategic planners in IT need to help ensure that they construct a core foundation that supports a rapidly evolving set of applications, and one that also optimizes the various media types that comprise today's collaborative experience. The Cisco Collaboration Architecture defines a set of core collaboration services that you should consider when planning such a foundation: one that follows your organization's specific IT roadmap for delivering collaborative capabilities to the business. It provides IT with flexible consumption models that enable you to deploy solutions as a combination of on-premises and cloud-based services that scale as required. The products that make up the Cisco Collaboration portfolio are based on this open, interoperable architecture, and they enable a broad range of solutions designed to match your business needs and priorities as you progress on your collaboration journey at your own pace.

For More Information

- Cisco Collaboration solutions: <http://www.cisco.com/go/collaboration>
- Cisco Collaboration Architecture interactive Adobe Flash video: <http://www.cisco.com/en/US/netsol/ns1007/architecture.html>



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