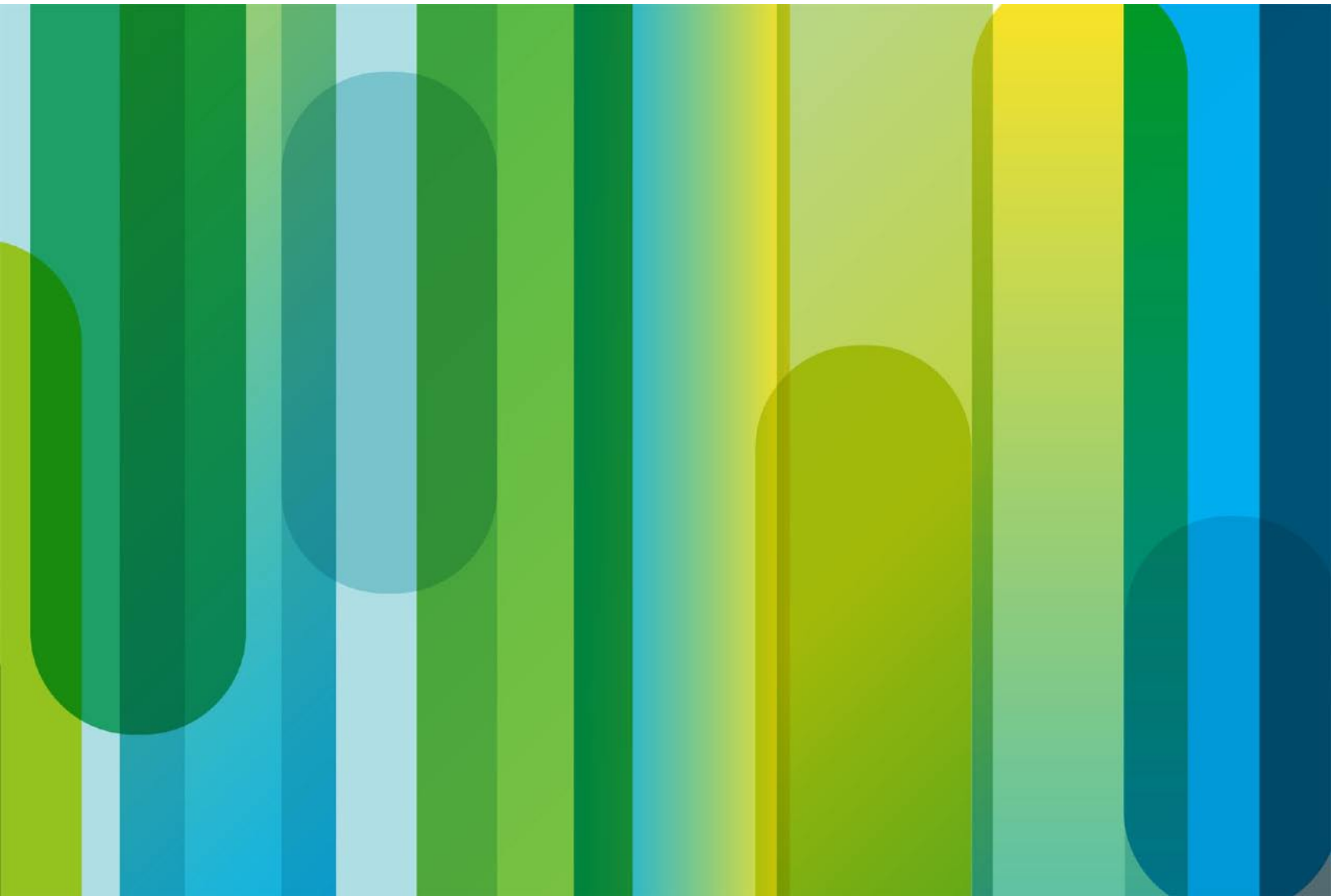


Cisco Video Collaboration Guide



Four Steps to Understanding the Possibilities of Video for Your Organization





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Explore The New Way of Working

Cisco White Paper



Research has found that 90 percent of frequent users say video collaboration technologies save them at least 2 hours of valuable work time a week.

Transform Your Team with Video Collaboration

Did you know that more than half of communication efficiency is determined by nonverbal cues—namely tone of voice and body language?¹ How many of these important nonverbal details get lost every day in email exchanges or conference calls? Face-to-face communication is more personal. It builds a higher level of trust, reduces confusion, and makes people more accountable for their actions.

Of course, in today's business environment communicating in person is not always possible. But video provides a means to the next best thing: instant virtual in-person communication. Telepresence and video conferencing are powerful multimedia tools that allow for natural, face-to-face communication even when people are miles—or continents—apart.

What does that mean for your business? Many organizations consider telepresence and video conferencing to be critical cost-reduction tools. It is true; almost 90 percent of video collaboration technology users identified reduced travel and cost savings to be a benefit of the technology.² Cost, however, is only one element of a video strategy that can also include increased productivity, environmental responsibility, and work-life balance.²

Video collaboration affects the way that business is conducted across an entire organization. With video, you can interview job candidates remotely, enhance telework programs, get real-time feedback from suppliers straight to the manufacturing floor, record training sessions and CEO messages, and much more.

Today, organizations use video for more than just meetings from conference room to conference room. Video collaboration can be a very personal experience when people at all levels of an organization can choose the solution appropriate for them and participate in video calls with anyone, anywhere.

Cisco has developed this guide to help you put together the right elements of a video collaboration solution, ensure user adoption, and measure your postimplementation success.

Research has found that 90 percent of frequent users say video collaboration technologies save them at least 2 hours of valuable work time a week.

1 Mehrabian, A. Silent messages: Implicit communication of emotions and attitudes. Belmont, CA: Wadsworth

2 Ipsos Mori, "Video Conference and Telepresence Technology: Perceptions and Usage in the Workplace." July 2010

1 Cisco Systems, Inc.

“We’re not like other practices. Rather than building our teams based on geographical location, we assemble a tailored ‘A team’ for each project, bringing in all the right experts for the job at hand.”

- CIO Nectarios Lazaris

Discover the Benefits

Video collaboration can deliver immediate benefits to your organization. Not only will video save you money and improve productivity, but video can also help you create a competitive advantage by:

- Helping you make decisions faster: The time we spend traveling, waiting for materials to arrive, or trying unsuccessfully to explain complex problems over email is time that you could better use to bring new products to market or resolve customer service concerns. Video enables all parties to share ideas, show detailed images, and take action more quickly.

Statoil, one of the world’s largest oil and gas companies, uses video collaboration technology to make faster, better, and safer business decisions by connecting offshore employees from the company’s platforms in the Norwegian Sea with on-shore specialists to virtually diagnose problems immediately. With video collaboration, problems that used to take Statoil 2 months to solve are now addressed in 2 weeks, significantly reducing downtime.

- Providing immediate access to experts: Sometimes there is just no substitute for an expert. Video enables you to take advantage of the expertise of a few people across your entire organization without asking them to travel to different locations. Training, translating, consulting, and troubleshooting can happen in real time. And with video streaming and archiving solutions, you can record and store an expert’s knowledge for accessibility by anyone at any time.

Global architectural and design firm Woods Bagot takes advantage of video collaboration technology to connect its worldwide talent pool of about 1000 employees. As Chief Information Officer Nectarios Lazaris explains, “We’re not like other practices. Rather than building our teams based on geographical location, we assemble a tailored ‘A team’ for each project, bringing in all the right experts for the job at hand.” The deployment has enabled Woods Bagot to reduce travel while increasing global collaboration and communication and offering the best possible client service.

- Bringing the organization together: Multiple offices does not have to mean isolated teams. After a global expansion, merger, or outsourcing initiative, departments often find themselves stuck in silos, disconnected from project goals and a communal company culture. Video creates a virtual meeting room for collaboration, helping to keep everyone up-to-date with the same information.

United Steelworkers used video collaboration to enhance merger alliance talks with another labor union. As Michael Krueger, Information Systems Director for United Steelworkers, explains, “The merger alliance would have taken a lot longer and cost a lot more. The telepresence solution allowed us to develop a close relationship very quickly, without having to travel back and forth. We easily cut six months out of the merger alliance process by using video.”

Vodafone has eliminated 13,500 flights per year, helping the company reduce its carbon emissions by more than 5,500 tons annually.

- Improving work-life balance: Traveling all day for a two-hour out-of-town meeting means sacrificing family and personal time, not to mention the added stress of delayed flights and lost luggage. By using video to attend that meeting—or even working from home instead of sitting in rush hour traffic—employees can maintain a balance between work and personal life, save costs, and protect the environment.

Tommy Hilfiger's international design teams in Amsterdam and New York invested in Cisco TelePresence™ to create virtual fitting rooms where they can collaborate faster and more effectively with their manufacturing team in Hong Kong. Now instead of missing birthdays and important family events, the designers can make critical decisions quickly without having to fly around the world and spend unnecessary time away from home. It is also speeding time to market.

Video Is the New Green

Humans have increased the level of carbon dioxide (CO₂) in our atmosphere by 30 percent in the past 100 years, according to the Sierra Club. And despite heightened awareness of the problem, the epidemic is only continuing to grow. In fact, the Federal Aviation Administration (FAA) expects greenhouse gas emissions from domestic aircrafts alone to increase by 60 percent by 2025.

On average, Cisco customers have found that video collaboration can reduce their need to travel by 30 percent, thereby reducing their CO₂ emissions while simultaneously improving their profitability. For example, Vodafone has eliminated 13,500 flights per year, helping the company reduce its carbon emissions by more than 5,500 tons annually. Applied Materials also took advantage of video collaboration as part of the company's corporate environmental initiative to reduce its overall CO₂ emissions by 50,000 tons by 2012.

For more information about how video collaboration can help increase your environmental responsibility, visit [Go Green with Cisco TelePresence Technology](#).



See How Video Can Pay for Itself

If you are considering a telepresence or video conferencing purchase for your organization, you now have a wider range of options than you did even just a few years ago. The video collaboration industry is changing rapidly. With the proliferation of IP, simplified user interfaces, and the introduction of new form factors, such as business-quality personal video solutions for the desk or laptop, video collaboration is more accessible than ever before. At the same time, the introductions of immersive telepresence solutions and high-definition room systems have increased expectations for quality and design. This expanding video collaboration universe also means you need to carefully weigh a broad array of features and functions to assemble the video collaboration program that is best for your organization.

Imagine how your organization might use video. With video collaboration you can improve almost any workflow process that you currently implement with telephone, email, or travel. When video is in place, you may be surprised at the additional opportunities you discover to improve communication. Consider the following examples to see how different types of departments have successfully used video.

Executives

- Hold regular face-to-face management meetings with anyone, anywhere
- Conduct board meetings face-to-face without travel costs or burdens
- Reach critical decision makers whenever they need them, immediately and “in-person”
- Stream CEO briefings live or record them for later viewing by all employees
- Speak at seminars or trade shows without traveling
- Improve work-life balance

“By using video technologies we were able to break many of the barriers in each phase of the acquisitions process. The ‘visual touch’ that video provided helped us tremendously, and use of video will play an integral role in future acquisition integrations,”

– Jawahar Sivasankaran,
Senior Manager of Cisco IT

Sales and Marketing

- Build stronger relationships with clients and more opportunities by seeing them face-to-face more often
- Provide customers at branch offices with expertise from home or remote offices
- Link remote sales people to headquarters for more personal interaction and coaching
- Conduct market research with customers face-to-face
- Get marketing messages out to the field
- Serve more clients in a day by reducing travel

Human Resources

- Interview faraway candidates face-to-face, reducing travel costs and burdens
- Conduct more efficient training by bringing virtual groups together face-to-face
- Help smooth integration after a merger

According to Jawahar Sivasankaran, Senior Manager of Cisco IT, Cisco’s acquisition of Tandberg was greatly enhanced through video collaboration. “By using video technologies we were able to break many of the barriers in each phase of the acquisitions process. The ‘visual touch’ that video provided helped us tremendously, and use of video will play an integral role in future acquisition integrations,” he said.

- Enhance and sustain telework programs
- Conduct all-company town halls in real time and “in person”
- Prepare for business continuity plans

R&D and Product Development

- Share product documents or drawings immediately and make changes in real time
- Reduce confusion across cultures and locations
- Keep a virtual water cooler between locations for instant collaboration
- Get real-time feedback from suppliers and customers
- Access remote experts in real time
- Get products to market more quickly

Manufacturing

- Make faster, smarter decisions about product development and design
- Hold quality control inspections across different locations
- Provide experts for remote machinery repair
- Coordinate shipments with suppliers

“In today’s economy, training is not an option, but necessary for staff to keep current on important information. Using remote locations means that training dollars go further. Working with innovative partners like Cisco can help agencies fulfill their educational missions while making their training dollars go further.”

– Tom Kenney, GTSI’s Vice President and General Manager, Federal Civilian Agencies.

- Create a single company culture with overseas branch offices
- Prepare for business continuity plans
- Conduct focus groups with customers
- Offer ongoing staff training
- Streamline supply chain management

Finance

- Collaborate in real time: Set daily strategies, share news and market conditions, and make decisions without confusion
- Extend expert financial services to customers in remote branch offices
- Interview potential job candidates from afar “in person”
- Offer face-to-face training and consulting opportunities

Public Sector

- Coordinate action with national, state, and local agencies
- Conduct briefings with high-level security
- Provide cost-efficient training opportunities
- Promote telecommuting and telework initiatives
- Prepare for business continuity plans

Public Safety

- Coordinate disaster recovery efforts more effectively
- Establish mobile field command posts
- Disseminate information to a wide audience in real time
- Bring experts into any situation immediately

Healthcare

- Provide remote diagnostics from rural to urban centers
- Link medical professionals for face-to-face mentoring and consultations
- Offer translation services for patients and medical staff
- Participate in continuing medical education programs

“I see TelePresence as a first step towards creating a live, interactive global classroom. It brings together business schools, students, corporate partners, researchers, and others, and will be an integral part of business education going forward.”

– Ray Smith, Associate Dean, Darla Moore School of Business, The University of South Carolina

Education

- Collaborate with other educational institutions in real time and “in person”
- Extend classes to students in rural or remote areas to participate as if they were there
- Include presentations from experts and virtual field trips in your curriculum
- Offer continuing education and training for instructors and staff
- Hold face-to-face administrative meetings among multiple campuses

ROI: The Three Most Important Letters in the Alphabet

After you identify the ways your organization could use video collaboration, you can calculate the time and resources you currently spend on the activities you would like to replace with video. Consider:

- How many people are traveling to meetings? What does that travel cost?
- How could staff be using their time more effectively by reducing travel?
- How long does it take your organization to bring a product to market? Complete a consulting engagement? Hire a new employee? Repair a problem?
- How could training sessions be consolidated to require less travel, less employee time away from work, and less time training staff?

Each time you replace a practice with video collaboration, you gain the opportunity to measure your return on investment (ROI).



See How Video Collaboration Fits Your Needs

Camera. Microphone. Monitor. Speaker. Codec. These are the five essential components that constitute a video collaboration solution. The camera and microphone capture the image and sound at one location. The codec converts the video and audio into a digital signal and compresses it before sending it out over the network. At the other end, the codec decompresses the signal and feeds the picture to a monitor and the sound to a loudspeaker.

A video call can incorporate two units or many, with considerable options for functions. Depending on your application requirements and budget, you have numerous options for the video collaboration solution you choose. There is a system for every workspace—from boardrooms to desktops, and from field locations to manufacturing floors. If you choose a vendor with a common platform, all of the systems you implement will work together easily.

A Total Solution

An end-to-end video collaboration solution incorporates a full suite of telepresence endpoints, infrastructure for multiple environments, and centralized management tools. You can expand it even further by integrating with external devices, digital signage, and productivity tools such as Cisco WebEx™ meeting applications.

Your end-to-end solution may include some or all of the following endpoint products:

- **Immersive telepresence:** Immersive telepresence creates the most realistic in-person meeting experience and provides an ideal platform for communication and interaction. Meeting participants feel as though they are having a conversation with colleagues right across the table—even though they may be miles or continents apart.
- **Multipurpose systems (sometimes called rooms):** These high-quality systems are designed to be used in meeting rooms, boardrooms, auditoriums, and other shared environments. High-definition (HD) multipurpose video collaboration solutions can offer the same clarity of picture and sound as immersive telepresence systems, and they are great for team meetings and collaborating in groups.

- **Desk, personal, or mobile video collaboration solutions:** These systems are designed for personal—or single-person—use and include video voice-over-IP (VoIP) phones and executive telepresence systems optimized for use in the office, workstation, and home office. PC- and Mac-based mobile video applications, such as Cisco TelePresence Movi, enable visual access to mobile workers at home or at the coffee shop.
- **Industry applications:** Telehealth, distance education, defense, and other industries have special video collaboration systems designed to meet their specific needs. You may find that your needs match a specialized solution, and rest assured that one is available to help you achieve your goals.
- **Peripherals and accessories:** A wide range of peripheral equipment that can enhance your visual communication environment is available. High-definition and wide-angle cameras, as well as upgraded speakers and microphones, enhance the visual and audio experience of telepresence. With document cameras, you can transmit drawings and other documents through video. You can connect your video systems to DVDs, VCRs, whiteboards, and document and multimedia applications through your PC.

Your end-to-end solution may include some or all of the following infrastructure products, which help ensure: That users on different networks can connect through the same video solution; That bandwidth can be regulated to help ensure optimal experiences; That calls across different networks and user domains can connect securely with Network Address Translation (NAT) Firewall Traversal.

- **Centralized management and scheduling tools:** Management systems enable you to control complex communications environments without decreasing the level of service or significantly increasing associated support costs. With a management system you can perform remote diagnostics and system upgrades, control associated resources, link to third-party communication tools, generate usage reports, and calculate your ROI. With applications such as FindMe, a part of the Cisco TelePresence Video Communication Server (VCS), callers can find you regardless of where you are. Individual video users can log on to a web-based interface and control where and how they are contacted. If you will be away from your desk, for example, you can have inbound calls to a video unit automatically forwarded to your cell phone.
- **Conferencing:** With multipoint control units (MCUs) you can join multiple video and voice participants into a single conference. You can find MCUs that offer high-definition continuous presence so you can see all of the people in your conference on the screen at the same time and ensure the quality of your high-definition units across the whole network. MCUs can also be highly scalable media services engines that grow with your business demands.
- **Call control:** As video adoption in your organization grows to include multiple sites and advanced functions, you may require network infrastructure to support your solution. Intelligent infrastructure components such as the Cisco TelePresence VCS and the Cisco® Unified Communications Manager can make your network more reliable by helping ensure that all calls are routed properly, converting IP addresses into directories for one-click dialing, and allowing your video units to interoperate with phones and other devices and applications.

- **Media services:** By adding a content recording server to your video collaboration solution, you can record and stream video meetings—such as company-wide announcements, trainings, and meetings—to be shown to a wide audience at a time most convenient for viewers. You can also use your video endpoint as a recording solution to share video messages with staff and customers.

Vendor and System Selection

One Size Does Not Fit All

There is no one video collaboration solution that is right for all organizations. It is important that you select a vendor and the video components that are the best fit for your goals and needs.

Selecting a Vendor

The ideal vendor acts as a partner in your business. When drawing up a short list of vendors, you should evaluate the following characteristics:

- A sound financial profile and a good business model
- A strong company history, ethical business practices, and professional reputation
- Proven and responsive customer service
- Cost-effective maintenance, support, and training programs
- Progressive research and development
- A global presence for one-stop-shop implementation wherever you may use video
- Satisfied customers
- Knowledgeable staff that can provide best practices for video usage in your industry
- An end-to-end solution, with infrastructure, management, and a variety of endpoints
- A commitment to developing standards-based, nonproprietary solutions so you can take best advantage of your investments inside and outside of your organization
- Integration with other unified communications tools

Matching Solutions to Your Goals

How you answer the following questions will help you decide which elements of an end-to-end video collaboration solution are best suited to your goals:

- How do you envision that your company will use video collaboration?
- What kind of information do you exchange—product details, spreadsheets, multimedia, high-security information?

- Would it be helpful to see and speak to colleagues either at their desks or at their home offices?
- Will you communicate visually with suppliers, customers, partners, or anyone outside of your organization?
- How many sites do you want to be able to connect in one meeting?
- How many people will participate in each type of meeting in each location?
- How many video meetings might occur simultaneously?
- On what type of network will you place your video system (dedicated network, IP, Multiprotocol Label Switching [MPLS])?
- What bandwidth will be optimal for your communications?
- Do you want to set different bandwidth options for different types of employees?
- Do you want a fully integrated system or a set-top solution where you can use an existing monitor?
- Will you need to record meetings or stream video calls, such as CEO briefings or training meetings, for those who did not attend?
- Will employees want to stay visually connected while they are traveling?
- Will people make ad hoc calls or will they always want to schedule calls in advance?
- How do you want to integrate video with your other unified communications tools (Instant Messaging, scheduling applications, IP phones, third-generation [3G] mobile phones, and existing video systems)?
- Will people use their video units as their primary phones?
- Will you want to connect to a private branch exchange (PBX)?
- How will you conduct diagnostics and maintenance?
- Will your IT organization manage your video network from a central location or multiple locations?

Try Before You Buy

The vendors you consider should allow you to test their equipment for a period of time. Do not be afraid to test equipment. Use it in a real-life scenario, and do not limit the test just to the IT department; bring in potential end users to get their impressions. Test the solution in terms of:

- Call reliability and quality:
 - How clear is the image at the bandwidth you will use? Image quality is defined by a codec that supports superior motion handling and can handle a monitor refresh rate of 30 frames per second (fps).
 - If you want high-definition quality, are all elements of the end-to-end solution you will deploy (such as MCUs) high-definition? If not, the quality could be negatively affected.

- How well can you hear? Is audio synchronized with images? The microphone, echo canceller, speakers, and your bandwidth all define the audio experience.
- How often are calls dropped? The mean time between failures (MTBF) should be high.
- State-of-the-art technology:
 - Is there an innovative engineering design that provides the latest in video clarity and functions?
 - Is it manufactured under the ISO 9002 certification?
 - Is it manufactured with energy efficiency and environmental sustainability in mind?
 - Is the design of the form factor innovative and appealing?
- Ease of use:
 - Are the menu prompts, phone books, and user interface clear and intuitive enough for anyone in your organization to follow?
 - Is it easy to install, maintain, and service?
 - Does it offer a flexible managed service program that lets you choose your network?
- Integration:
 - Is there one-click integration with other communication tools?
 - Is it standards-based for interoperability with third-party video units?
 - Can it be smoothly integrated with other workplace tools?
 - Do all video systems—from immersive telepresence and desktop solutions to infrastructure—work together transparently?
- Value:
 - Are systems optimized for both high and low bandwidths to help you balance cost with functions?
 - Can you upgrade software to add on features as technology develops and your adoption grows?
 - Do the features and functions meet your needs at a competitive price?
- Standards and compatibility: Be sure to choose a standards-based solution that is interoperable with video equipment from any manufacturer. If you are adding new infrastructure, management software, or additional systems to expand an existing network, you will be able to communicate smoothly only if the solution you choose is standards-based. But beware; it is important that you understand how a system will perform when it is connected to equipment manufactured by another video conferencing company.

Selecting Your Network

Make the Right Call

You may choose to run your telepresence and video conferencing traffic over dedicated IP networks or ISDN networks. If you already have an IP network in place for voice, your natural next step may be to deploy video over IP (VoIP). Many companies run video systems in a mixed environment. More than a quarter of all video conferences ran on an IP network in 2006, according to Frost and Sullivan, with that number now reaching more than 50 percent.

When selecting your network, you should ask yourself:

- Whom do you plan to call? For example, are the sites you plan to call all internal? Do you plan to call other sites not owned by your company?
- How widely available is the desired network? Not all networks are available worldwide. For example, ISDN is widely available in many countries but is still in the early stages of deployment in some countries and rural areas. The same applies to IP networks. Not all countries or areas are connected to the Internet with the same speed and reliability. Be sure to check which networks are available in the geographic areas where your company operates.
- What are the costs associated with the network? Costs will vary based on your choice of network. If considering an ISDN network, remember that you will have local and long distance charges involved. When looking at an IP network, consider the implementation costs and your existing network architecture. Account for your costs over the long term for each type of network.
- How reliable is the network? It is important to note that public Internet is not as reliable as private IP networks.
- How much bandwidth will you require? Will you use embedded multipoint functions, high-definition video, or other features that require higher bandwidth? You may wish to restrict the bandwidth for certain users or applications, but allow higher bandwidth for your most critical video meetings. You should choose a solution that either allows you to adjust the bandwidth or one automatically balances the bandwidth based on the application.
- Will the solution work with your network partner? High-end video meetings, such as those over immersive telepresence, can benefit from dedicated, managed networks. You should ensure that any solution you choose will work with the network partner you choose.
- Are you operating in a unified communications environment? If you are, you need to build networks that will support varying types of communications systems, devices, and applications, ensuring they can integrate. Inadequate bandwidth capacity, processing bottlenecks, or inappropriate network design can compromise mission-critical applications and negatively affect the adoption of video and other communication tools.

With lower setup, configuration, resource requirements, and maintenance costs, video over IP makes IT's job easier.

Unified Communications over IP

With a converged network over IP, the concept of unified communications becomes a reality. IP promises lower costs, easier management, remote monitoring and control, higher bandwidth calls enabling higher-quality audio and video, and integration into the corporate information technology mainstream. According to research firm Frost & Sullivan, video users switching from ISDN to IP can reap as much as 40- to 50-percent savings upon deployment.

On an IP network, the ongoing costs of running a telepresence or video call are minimal—just maintenance and technical support (and you can further minimize those costs with management and scheduling tools). When ROI for the initial deployment is met, any additional conferences are essentially free. And because no incremental cost is involved in running a video conference over IP, employees and managers are more likely to use the technology. As usage goes up, payback times go down—further boosting ROI.

Voice over IP increases IT's control over network management and performance, as well as telepresence and video conferencing. One of the biggest complaints about video has long been that it requires significant time and energy investment on the part of IT.

With lower setup, configuration, resource requirements, and maintenance costs, video over IP makes IT's job easier.

Administrators can remotely manage telepresence and video conferencing from anywhere, increasing reliability and performance. Video over IP also reduces the cost and time spent training IT staffers and end users, and frees IT staffers for other strategic initiatives.

IP networks can be easier to benchmark, before and after the installation of telepresence and video conferencing. That is important for performance, especially as more users start to take advantage of the technology. As a result, the technology will run better—and, in turn, will lead to even more usage. Better data and usage information also makes measuring ROI much simpler.

With unified communications, separate communication tools are integrated into one system so that they can be used together transparently. Unified communications combines applications and services—such as video, telephony, calendaring, Instant Messaging, presence, and web collaboration—with any type of communications device and multiple networks for connectivity anywhere, anytime.

Video offers an essential element of conversation that other technologies cannot—the face-to-face experience.



So, you've chosen your video collaboration solutions and prepared your infrastructure. Now it's time to deploy. That means setting up the best possible experience for your users. To help ensure your video collaboration program is successful, it is imperative that your people feel comfortable and excited about using the technology. The following information provides tips on how to use the equipment and hold successful video meetings. More information can be found at www.videochampion.com.

With just a little bit of training and preparation, your program and your people will be on their way to success!

Room Setup: Make Your Meetings Feel More Natural

You can use video in many environments—boardroom, manufacturing floor, work station, or home office. A few simple adjustments (and a few things to keep in mind) will help ensure that your meetings have the best possible image and audio quality.

- Background:
 - Remember that the camera shows what is behind you. Provide a calming background with a neutral color, medium contrast, and soft texture. Avoid patterns on the walls.
 - Avoid moving backgrounds such as curtains in a draft or people walking behind you. Such backgrounds may reduce image quality and distract the attention of those on the far end.
 - Do not place the camera facing a doorway.
 - Choose a table that is light but not reflective. A light natural wood is a good choice.
 - Avoid unnecessary furniture or clutter in the room.

- Lighting:
 - Avoid direct light on people, presentation materials, or the camera lens. Direct light will create harsh contrasts and shadows.
 - If you have poor lighting in the room, you may need to use indirect, artificial light. Indirect light from shaded sources or reflected light from pale walls often produces excellent results.
 - “Daylight” type lamps are most effective. Avoid colored lighting that might tint your image.
 - Do not place reflective whiteboards directly behind people or where lighting may reflect and cause glare. If whiteboards are not required, remove them.
- Placement:
 - Place your video system about two to three feet (60 to 100 cm) away from the person who is speaking, considering screen size and what feels natural.
- Setup:
 - If you set the unit to Automatic Answer, mute the microphone.
 - Position the camera in the top center of your unit.
- For desktop video conferencing units:
 - Video should be located close to your PC, along with your other everyday tools. This way you can easily share presentations without having to move. You may even be able to use your system as a PC screen.
 - Use a headset for privacy in an open office environment.
- For meeting rooms:
 - Place the microphone at the front of the table to help ensure that all speech is detected. The best position is at least 6.5 feet (approximately 2 meters) in front of the system, on a flat surface with at least 1 foot (0.3 meters) of table in front.
 - Keep the document camera close to the leader of the meeting or the designated controller. Remember to arrange all the peripherals so that one participant can reach each of them to point, change the display, record, or perform other functions during the conference.
 - To help ensure the most natural meeting environment, position the camera on the top center of the receiving monitor. The camera should point directly at the meeting participants to guarantee eye contact with those at the far end.
- Loudspeaker volume:
 - The audio system uses the loudspeakers built into the monitor. You can set the default volume level by adjusting the volume on the monitor with the monitor remote.

- **Brightness control:**
 - To adjust brightness, colors, or other settings of the monitor, use the monitor remote or its touchscreen control. Adjust the monitor to suit the conditions of the conference room. For more information about configuring the monitor, refer to the user manual.
- **Ease of use:**
 - To help meeting participants dial, add presentations, and use other functions during a call, station a poster, table tent, or other quick-reference guide in the room.

Effective Video Collaboration: Set Yourself Up for Success

A video meeting is just like a live meeting—almost. If you are used to conducting live presentations, you are already well on your way to becoming an effective video communicator. The techniques that ensure powerful live presentations and dynamic collaboration also work for video communication. However, video meetings and presentations do require some minor adjustments. Here are a few tips to keep in mind:

- **Be more than a talking head:** Most telepresence and video systems allow you to share multimedia source materials such as video clips, websites, spreadsheets, and other presentations. Taking advantage of this ability to communicate visual information can make your video meetings more engaging and effective.
- **Look them in the eye:** Eye contact is important in any presentation. In a video environment, eye contact comes from looking toward the camera—not the display. Make certain that your camera is positioned as close as possible to the top center of your video display. This positioning gives the impression of strong eye contact, and helps build trust and understanding among your participants.
- **Enunciate:** If you mumble and cannot be heard by the person seated next to you, the people on the other end will also have a problem hearing you.
- **You are in the spotlight:** Cameras and video displays tend to make everything “bigger”. Nervous habits or little recurrent gestures are magnified and will distract participants on the other end. Try not to rock, sway, or fidget with paper or pens. Remember to relax. A video meeting is like any other meeting, except it includes people who are not physically present in your room.
- **The camera is always paying attention:** When you are connected in a video call, the camera and microphone faithfully pick up all images and words. Smart remarks, quips and asides, or demeaning gestures such as rolling eyes, are greatly amplified at the far end. You should assume that the other meeting participants can hear and see everything, even when the camera is not pointed in your direction.
- **Cede the floor:** Secondhand noise is distracting and makes it hard to hear other speakers clearly. So mute the microphone on your side when not speaking. This muting keeps coughing, rustling papers, and other noise from drowning out the speaker.

- **You are not on TV:** A telepresence or video conference is two-way communication—unlike television, which is passive and one-way. Be sure to build in opportunities to verbally engage the participants at the far end. Vary your source materials and provide visually interesting items that will elicit responses.
- **Address your entire audience:** When you are in the middle of a presentation, it can be easy to forget that you are presenting not just to the people in your room but also to the participants at the far end. Be sure to speak to, make eye contact with, and engage all parties on your call.
- **Testing 1-2-3:** It is always a good idea to test your system and source materials prior to your meeting to avoid any unforeseen problems.

Prepare for Your Presentation

- Identify your goals for the presentation or meeting.
- Know your audience and what they want.
- Prepare an introductory overview (for a presentation) or agenda (for a meeting). Develop a conclusion to reiterate presentation points or confirm meeting decisions.
- Rehearse your presentation ahead of time.
- Do not just read your presentation. Look up from your materials every 5 to 10 seconds.
- Vary the volume and rate of your speech. Avoid a monotone.
- Allow time for Q&A.

A Final Word

Let's get started.

At Cisco, we are changing the way people communicate. Video is making our customers more productive by:

- Accelerating decision making
- Increasing competitive advantage
- Scaling knowledge
- Unifying organizations
- Strengthening relationships with customers, suppliers, and partners
- Improving work-life balance
- Enhancing environmental responsibility

Cisco offers a complete range of solutions designed to help you meet your business objectives, including immersive telepresence, high-definition multipurpose systems, and personal and mobile video.

The success of any solution depends upon high-quality, reliable, easy-to-use products and services that deliver excellent value. With customers in every industry in more than 90 countries, Cisco is at the forefront of the video collaboration industry—consistently the first to deliver fresh functions and realize new applications. We were the first to introduce architecture that embraces open standards, promotes interoperability, and takes advantage of existing network infrastructure.

We are an integral part of the unified communications movement. Our alliances with other vendors help ensure that our products interoperate with best-in-class communications technologies, providing you with high value and low total cost of ownership for your video investment.

To learn more about how Cisco can help you implement the right video collaboration solution for your organization, please visit www.cisco.com/go/telepresence.



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