

The Business Case for Videoconferencing

Achieving a Competitive Edge



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The Business Challenge

It wasn't so long ago that email was considered a corporate perk - a nice-to-have capability for employees and remote workers. Now, email is practically in the same category as heating and lighting – most workers, and certainly all knowledge workers expect email connectivity as part of their work environment. Today, rich media solutions for conferencing and collaboration, driven by video and web conferencing technologies, are making the same transition.

No matter what business you are in, the success of your business is driven largely by the quality of your decision making and the skill at which your team can execute on those decisions. Both decision making and decision execution are dependent on the quality of communications. (In most business situations, fast execution will trump lengthy strategic planning every time). Better communications leads to better decisions, and better results implementing those decisions. Rich media conferencing and collaboration are the next-generation tools (available today) for improving your enterprise communication capabilities, taking off where the telephone and email have left off.

Conferencing and collaboration tools can help your company respond quickly to customer demand, solve customer support issues, react to market opportunities, and battle competitive threats. Whether you consider an investment in conferencing to be a way to cut costs or to increase productivity, these tools will soon join the ranks as necessary tools for your company to compete in the worldwide economy. So, the question is not whether or not to invest in conferencing and collaboration, but rather which types of applications make the most sense for your company.

Collaboration: Why Now?

After years of false starts and unfulfilled promises, conferencing and collaboration solutions have reached reliability, ease-of-use, and utility levels whereby the technologies are finally being integrated into the enterprise core and are helping to reinvent business processes. New software, new services, and increasingly powerful hardware are making enterprise investments in collaboration solutions not only more useful, but also easier-to-use and far more cost-effective. Perhaps more importantly, however, is that these tools and solutions can play a critical role in helping organizations develop more effective work teams, manage dispersed global resources, shorten product development cycles, maintain higher levels of integration with suppliers and customers, and lower operating costs.

The success of any enterprise ultimately rises and falls on the quality and speed of its decision making. Enterprises that fail to use modern communications technologies, that do not leverage the knowledge base of workers, and limit the potential for collaboration, run the very real risk of falling behind their competition. This fact has not been lost on the large enterprise software and infrastructure vendors like Avaya, Cisco, IBM, Microsoft, Nortel, Oracle, and Siemens. Many of these companies have not just introduced conferencing and collaboration products, but have set up entire business divisions to provide their customers with a full range of audio-video-web-presence-based solutions. They recognize that the time to invest in conferencing and collaboration solutions is NOW.

Understanding the Business Case

If we had to sum up the benefits of conferencing and collaboration solutions in one word, we would choose “productivity.” New business communications tools deliver the productivity improvements as both hard and soft benefits.

Soft Benefits

Perhaps the most under-appreciated benefits are soft benefits, those that are difficult and sometimes impossible to quantify with precision. Soft benefits include:

➤ Faster Decision Making and Shorter Time to Market

The team-oriented structure of modern organizations means that many decisions require insight and approval from many different sources. Electronic meeting tools enable dispersed teams to collaborate easily, solving problems and speeding coordination – ultimately delivering faster time-to-consensus and hence a shorter time-to-market for new products and services. In today’s increasingly competitive world, shorter time-to-market delivers one of the highest payoffs. Another example: presence-based visual collaboration tools enable workers to immediately locate and communicate with coworkers and partners, regardless of their current location, to solve customer issues in real-time and without the wasted cycles of voice mail and email exchanges. The result is decreased worker frustration, faster problem resolutions, and increased customer satisfaction and loyalty.

➤ Productivity / Efficiency

Videoconferencing and visual collaboration tools are moving away from the scheduled environment of the departmental conference room to the ad-hoc, unscheduled work style of the desktop. Conferencing on demand delivers immediate productivity boosts and time savings to all knowledge workers by enabling them to integrate visual communications and desktop-based collaboration tools into their normal workflow process. The result is an immediate impact on the bottom line.

➤ Higher Impact and Focus

Videoconferencing can help an organization inject higher impact into their meetings and conference calls, especially when compared to an audio-only meeting. Higher impact during meetings translates into shorter, more effective meetings with minimal workflow disruption. Studies have shown that videoconferencing meetings tend to be shorter than in-person meetings, leading to less wasted time.

➤ Competitive Advantage

Using videoconferencing can give a company a competitive advantage. For example, a firm that recruits by videoconference rather than flying recruiters or candidates around the country can interview more people, from more locations, in less time, and with less cost and disruption to executive schedules, thereby making better hiring decisions. Using advanced collaboration tools enables companies to better support remote workers and build better dispersed teams, thereby giving more employees more choices on where they want to work.

➤ **Enhanced Quality of Life / Decreased Stress**

Today's business executive returns from a business trip to be greeted by mountains of e-mail, piles of faxes, and long queues of voice mail. A recent study revealed that more than 70% of business travelers were stressed by business travel. More than half of those people stated that business travel negatively impacts their life, their sleep, and their general welfare. As a viable alternative to business travel, videoconferencing can reduce employee stress and enhance their quality of life. Travel avoidance also allows the employee to steer clear of the security-related delays associated with air travel today.

➤ **Increased Reach**

Some businesses simply require a personal touch between company and client. Videoconferencing allows organizations to expand their global reach without having to overburden their employees with excessive business travel. Typical examples include legal and distance education where subject matter experts use two-way video solutions to interface closely with remote participants and colleagues.

➤ **Improved Management of Dispersed Teams**

Large companies have subject matter experts and qualified resources located around the world. Videoconferencing allows firms to more easily deploy and manage those globally dispersed resources by allowing impromptu, face-to-face meetings between managers, subordinates, and remote peers.

Research conducted by Wainhouse Research and others shows that the soft benefits that accrue from the use of electronic meeting tools are extremely important, though they are often fuzzy or difficult to prove or measure with absolute precision. For example, how does one factor executive stress reduction into a spreadsheet formula, or assign a dollar value to the ability to attend a child's soccer game instead of being on an airplane? And, if the new program development team finishes three weeks ahead of schedule, what percent of this success can be attributed to the use of electronic meeting tools instead of a lucky break, a smarter software engineer, or a vendor who overcame a key delivery obstacle? Soft benefits may be hard to quantify, but they are no less real than hard benefits.

Hard Benefits

Hard benefits are those for which both the costs and the benefits are clearly understood and easily quantifiable. Since hard benefits can be assigned dollar values, they are the dream of every manager and every financial executive. The most obvious hard benefit from conferencing and collaboration solutions is travel reduction, eliminating costs associated with airfare, hotels, meals, taxis and car service, etc. Hence, realizing travel cost savings has been the traditional way to justify videoconferencing. This approach resonated with many CFOs and program managers because the mathematics allowed an organization to generate a hard savings figure and a very specific ROI for videoconferencing.

Beyond the obvious elimination of direct expenses, reducing travel eliminates many hours of downtime and days away from the office. Even with the proliferation of handheld communication tools (cell phones, PDAs, Blackberry's, etc.), people in transit are not able to conduct business as efficiently as they can from their offices. When executives understand the real costs associated with a 1½ day trip to attend a 1½ hour meeting, they will appreciate how today's audio-video-web conferencing solutions can help

them save money, reduce wear and tear and stress in their business and personal lives, and boost personal productivity at the same time. Multiply this benefit by the number of executives traveling to a meeting, and the total hard and soft savings can be very significant.

Today's electronic meeting tools, and videoconferencing in particular, give people the choice to NOT be there, yet to remain in touch and productive while balancing the work vs. lifestyle equation. In the not-too-distant future, we expect videoconferencing to be the foundation for new ways of reaching customers, creating the ability to connect and sell anywhere, anytime.

Videoconferencing Today

The videoconferencing industry today is undergoing its most important transformation since the early 1980s. While room conferencing systems continue to provide improved audio and video quality and ever-more impressive features and functions at ever decreasing prices, the real action is going on at the desktop where multiple vendors with multiple strategies are vying for the enterprise user base. The proliferation of videoconferencing and personal collaboration tools is being driven by several technology trends:

- The deployment of more powerful personal computers able to handle multiple tasks while delivering outstanding audio and video quality.
- The deployment of IP, the current network of choice, to virtually every desktop. Enterprises today are moving toward IP-based voice, video, and data communications, providing a more reliable, easier to manage network infrastructure.
- The emergence of presence as a de facto communications tool, enabling enterprise workers to see not only the availability of their colleagues, but also their ability to participate in a text, voice, or video conference. Due to its ease of use and natural fit with ad-hoc, on-demand calling models, presence is quickly becoming the user interface of choice for many communications tools.

The result is that while room videoconferencing continues to benefit from improved price/performance, personal conferencing continues to define new paradigms for enhancing enterprise productivity without interrupting employee workflow. Wainhouse Research believes three approaches to enterprise desktop collaboration will dominate.

- **IP Telephony:** The strategy here is to leverage the infrastructure and network investments made around the PBX and to use that infrastructure to manage, launch, and control a variety of audio, video, and web based communications. The user interface here will be the telephone (PBX) handset that interfaces to rich media through Presence, directory services, and other services that make connection a simple matter of point and click. PBX vendors are partnering with video and web developers to make this happen, including building support for both video appliances and PC-based solutions.
- **Integrated Communication Portals:** This approach is based on a dedicated communications application that leverages the PC interface and provide an integrated environment to schedule, launch, and control audio, video, and web communications. The stand-alone software typically provides a wide range of videoconferencing performance, depending on the user's PC and network connectivity. Integrated communications portals will also integrate with room videoconferencing room systems.
- **Converged Applications:** This strategy is based on enterprise software vendors selling applications such as CRM and ERP extending the capabilities of these mainstream solutions by

embedding rich media conferencing and collaboration within the higher level application. With a converged application, users launch collaboration sessions from within another computer-based application, not from a stand-alone solution.

All three of these approaches are likely to utilize common Presence and Directory Services engines that integrate the conferencing and collaboration solution into the core enterprise IT architecture. All three will support ad-hoc collaboration sessions and will leverage the larger investments made in enterprise IT technologies. But, each approach presents end-users with a very different user interface. Because each of the three have specific advantages and disadvantages, we expect them to appeal to different audiences and ultimately to co-exist in the marketplace. One thing that remains clear, however, is that companies that adopt these next-generation personal videoconferencing and visual collaboration tools will have a competitive edge over those that do not.

Real World Examples

1. Time-to-Market

The use of videoconferencing and visual collaboration can yield significant improvements in corporate efficiency – especially in the project management area where these tools can help speed the development and product launch process. By cutting time-to-market, engineering and marketing teams can introduce more products to the market in a given period of time. In this situation there are several factors worthy of consideration. Shorter development cycles reduce development salary expenses. In addition, shorter cycles means that the sales process can begin sooner, thereby cutting the “time-to-cash.” Furthermore, in many industries the first few months of a product’s life can be the major determinants of a product’s overall profitability since competition is typically less and prices can be higher.

In the following simple example we assume that a product development team split over two sites has just initiated a 24-month development cycle. To expedite product development and foster collaboration, senior management decided to lease two videoconferencing systems and an always on, dedicated IP network connecting the two sites. The video systems, with a part time manager and a maintenance contract, cost \$4K per month, and the IP network service costs \$1K per month, resulting in a total cost of \$120K over a 24 month period (we assume the 24-month contract is fixed). To simplify our calculations, we make the ultra-conservative assumption that the video systems will not be used for any other purpose (or by any other department / development team).

We also assume that the development team spread across the two sites costs the company \$35,000 per month in salary and overhead (before taxes). Additionally we assume that the product they are working on will generate \$500,000 per month in sales with an 18% profit before taxes, or \$90,000 per month.

The table shows the dramatic effect that shortening time-to-market can have on investment returns. In our example, for each month cut off the development cycle, the project will save \$35,000 in before-tax salary costs, plus generate \$90,000 in before-tax earnings. Besides a reduced investment and faster time-to-cash, shortening the development cycle enables the development team to move on to new projects faster.

	Without Video	With Video	With Video	With Video	With Video
Time savings - months	0	0	1	2	3
Project duration (months)	24	24	23	22	21
Videoconferencing costs over 24 months	\$0	\$120	\$120	\$120	\$120
Team salary costs/project	\$840	\$840	\$805	\$770	\$735
Total salary + video investment	\$840	\$960	\$925	\$890	\$855
Incremental profit before tax	\$0	\$0	\$90	\$180	\$270
Net project cost before tax	\$840	\$960	\$835	\$710	\$585
Savings attributed to video	\$0	-\$120	\$5	\$130	\$255
Savings as % of original cost	0.0%	-14.3%	0.6%	15.5%	30.4%

Figure 1: Financial Benefits of Decreased Time to Market

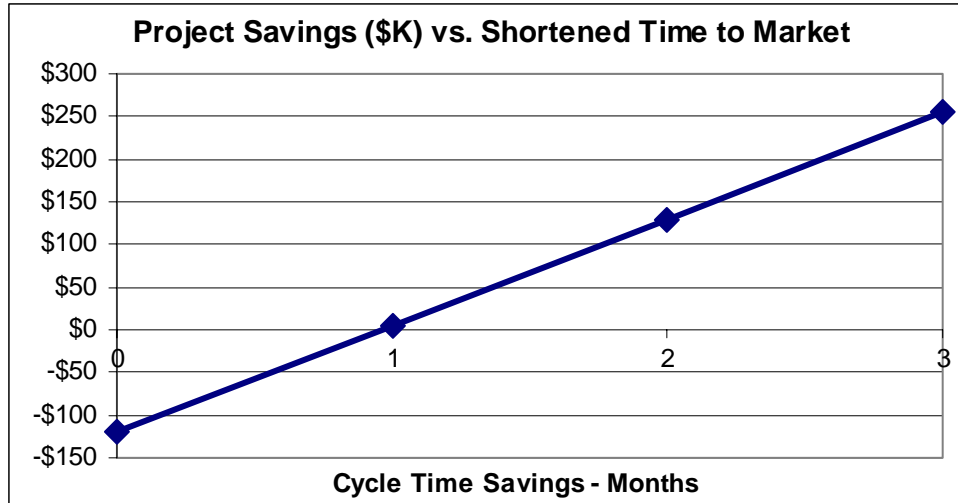


Figure 2: Time-to-Market Savings

The numbers in our example provide hard cost savings and hard benefits. What makes the example “soft” is that it is not always crystal clear just how much of that time-to-market reduction can be attributed directly to the visual collaboration tools. The assumption is that visual collaboration leads to better decisions in less time, and that better decisions results in faster development cycles, but other factors can also contribute to shortened (or lengthened) time-to-market.

2. Recruiting

The use of videoconferencing as a recruiting tool is extremely common in large, medium, and small corporations. Making this application even easier to implement are the thousands of public videoconferencing rooms available for rental throughout the world. For a few hundred dollars per hour, companies can use these fully equipped videoconferencing suites to enhance their internal recruiting efforts. Videoconferencing is particularly efficient for initial screening interviews. By converting these first-interviews into “virtual” interviews, companies can limit travel investments to those candidates worthy of serious consideration while gaining many important soft benefits.

First, let’s look at the hard benefits which accrue largely through travel reduction.

A reasonable estimate of the cost to physically transport a candidate to the company for an interview might be \$1,450. This figure includes airfare, one night of hotel, per diem costs for food, taxis, airport parking, and all other hard travel costs. Room rental for a public, ISDN connected videoconferencing system typically runs about \$300 per hour.

Using our model for the typical cost of equipment and network, and considering only hard costs and benefits, the break-even on this investment occurs in the 12th month, assuming the system hosts only one interview per month. With two interviews per month, the breakeven point falls to about four months.

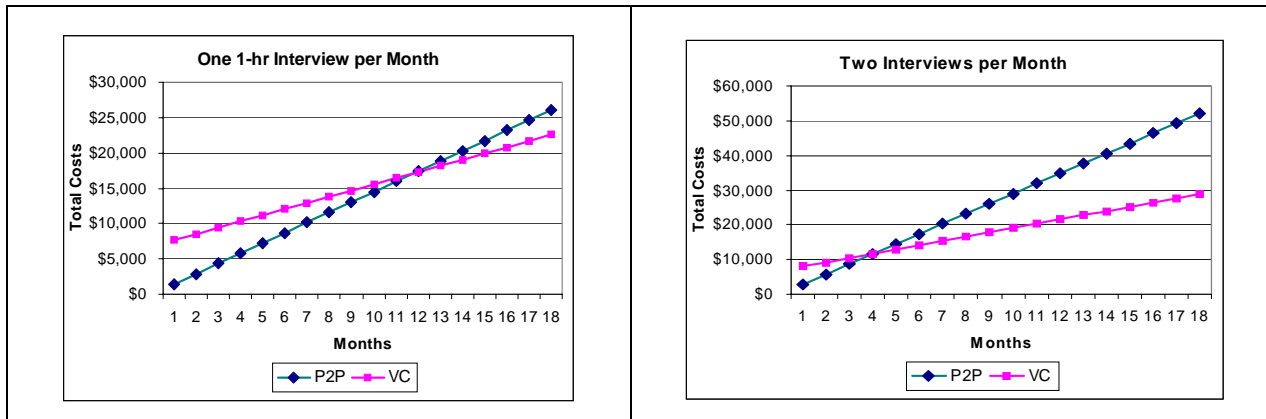


Figure 3: Break-Even Charts for Recruiting Example

A more realistic approach to the situation would also consider the soft costs and soft benefits that typically dwarf the hard benefits of cost savings. For example, bringing a candidate to the corporate office often means coordinating the schedules of multiple executives who may wish to interview that person. Finding a common available day in multiple schedules typically means delaying the candidate's interview. The question is: how much is time worth? If your typical employee generates \$600K per year in revenues, leading to a bottom line contribution of \$15K per month, each month of hiring delay costs the company \$15K. How much would you invest to gain \$15K per month in contribution?

Another benefit is that videoconferencing lends itself easily to recording and archiving an interview, thereby allowing staff to view the interview session at the time of their choosing. And the ready availability of public videoconferencing rooms and distance-insensitive nature of videoconferencing means that managers can interview more candidates from more locations in less time. In addition, interviewing by videoconferencing eliminates the need to host and entertain those candidates, saving additional costs and additional executives' time. Lastly, recruiting via video positions your enterprise as both high-tech and cost-efficient.

3. Pure Travel Reduction

Organizations that invest in and use videoconferencing can enjoy significant cost savings, the magnitude of which depends mostly upon how often they use the video technology. For this hard cost savings calculation, we are considering only the potential savings a firm can realize by converting a percentage of their travel meetings into video meetings. As a part of this calculation we must factor in both direct travel expenses (flights, car service, hotel, meals, etc.) and the cost of employee time.

For this example let's calculate the cost savings that a 250 person firm with 10 offices could realize by converting 40% of their travel meetings to videoconferencing. For convenience, we've used a previously developed Polycom ROI Calculation Tool (contact your Polycom reseller for access to this FREE tool) to generate the resulting data for this example.

The basic cost assumptions for this example are that a round trip flight costs \$450, hotel costs \$100 per night, the average meeting has 4 traveling participants, each earnings \$80k salary per year and take an average of 3 domestic trips per month. To support these video meetings, the firm must purchase \$100K of videoconferencing equipment and pays \$40K per year in system management fees. Please see Appendix 3 for a list of all cost / benefit assumptions utilized for this calculation.

Entering this information into the Polycom ROI Calculator reveals that the total cost of the videoconferencing equipment for the 10 sites, including maintenance, depreciation, and management costs, is \$88,333 per year for three years. Based on the above assumptions, this firm will save an average of \$1,384 for each meeting traveler converted to videoconferencing. As a result, if 10 participating users convert 40% of their travel meetings to video, the firm will save a total of approximately \$110,000 in year one as shown below.

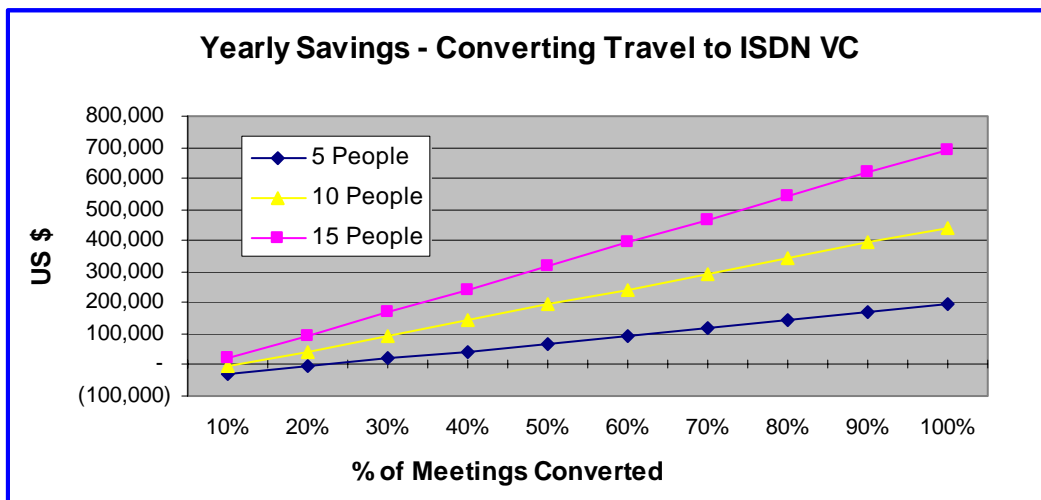


Figure 4: Hard Costs Savings Example - Yearly Savings

From an ROI perspective, this firm will enjoy an ROI of 226% on their estimated yearly total cost of ownership (TCO) of \$88,333 as shown below. In fact, the breakeven occurs at less than 9 months.

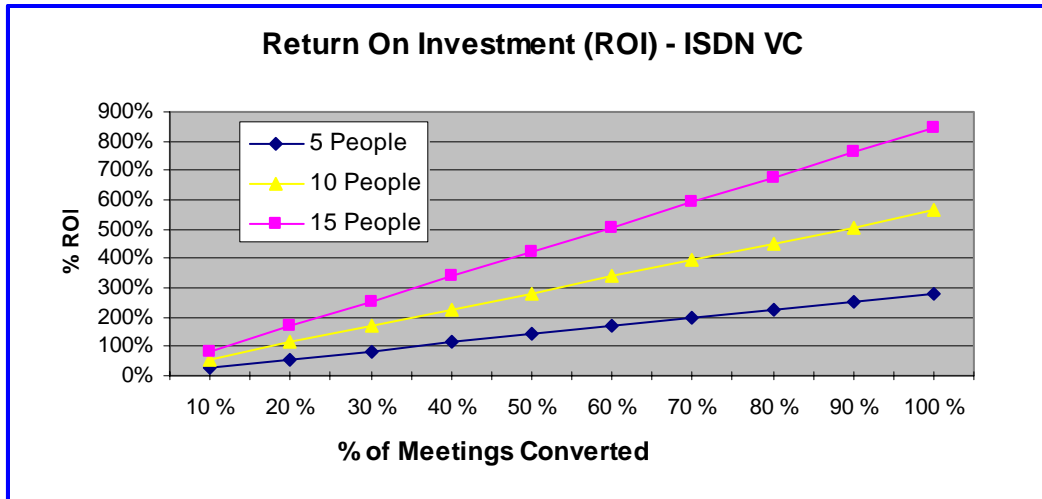


Figure 5: Hard Costs Savings Example - ROI

Note that these results change dramatically as the usage level and meeting conversion rates change as shown below. For example, if instead of 10 users converting 40% of their meetings the firm can motivate 15 users to convert 60% of their meetings, their yearly savings increase from \$144,000 to \$393,000 and their ROI increases from 226% to more than 500%. This highlights the important role user adoption plays in delivering videoconferencing benefits.

Although time savings is not the focus of this section, readers should note that the firm in the above example would save approximately 30 workdays and 14 business trips per year per employee.

The conclusion here is that the combination of videoconferencing's soft and hard benefits can save time, save money, and make an organization more competitive. Videoconferencing is more than just a corporate expense; it is an investment in an organization's efficiency, productivity, and employee morale.

Companies can enjoy similar savings by running their videoconferencing over an IP network instead of an ISDN network. The cost difference between using ISDN and IP will vary widely based on:

- The fixed monthly cost of a local IP connection vs. that of the required ISDN lines
- The network service provider and service plan chosen by the host organization.
- The number of hours per month that the videoconferencing system(s) are used.
- Whether the IP network is used to host video only or whether voice and data are also run over the same network in a converged environment.

Conclusion

Conferencing and collaboration applications provide both hard, quantifiable benefits and many soft, difficult-to-measure benefits. Savvy managers recognize that the soft benefits are of equal or greater importance than the hard benefits.

Videoconferencing and other collaboration tools are far more than a simple replacement for travel. These enterprise solutions provide better ways to communicate and work. Conferencing and collaboration applications enable knowledge workers to do more than just exchange information; they also provide an environment for productive interaction.

Videoconferencing and collaboration are in the midst of a fundamental paradigm shift as new technologies, new vendors, and new partnerships bring integrated voice, video, and web solutions to the enterprise desktop. These personal tools enable knowledge workers to communicate anywhere, anytime, with local and remote colleagues, without leaving the comfort and efficiency of their work space. This speeds up decision making, boosts productivity, and contributes directly to the bottom line.

Conferencing and collaboration solutions have finally joined the ranks of the telephone and email as core business tools that global enterprises need to compete in today's global marketplace.

About Wainhouse Research

Wainhouse Research is an independent market research firm focused on critical issues in rich media communications, videoconferencing, audio and web conferencing, IP messaging, and streaming. The company conducts multi-client and custom research studies, advises vendors on product strategies and market positioning, consults with end users on key implementation issues, publishes white papers and magazine articles, and delivers public and private seminars. Members of the firm are respected industry analysts who also appear regularly as speakers at conferencing industry events. The company also publishes the Wainhouse Research Bulletin, a free electronic newsletter covering the entire conferencing industry and also hosts the PLATINUM (www.wrplatinum.com) content web site. Details on Wainhouse Research, its partners, and the firm's products and services are available at www.wainhouse.com.

About the Authors

Andrew W. Davis is the Managing Partner at Wainhouse Research. He has more than ten years experience as a successful technology consultant and industry analyst. Andrew has held senior marketing positions with several large and small high technology companies and has published over 250 trade press articles and columns on multimedia communications, image and signal processing, videoconferencing, and corporate strategies. He is also the principal editor of the Wainhouse Research Bulletin. Mr. Davis holds B.S. and M.S. degrees in engineering from Cornell University and a Masters of Business Administration from Harvard. He can be reached at andrewwd@wainhouse.com.

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About Polycom

Founded in 1990, Polycom is the only company today delivering end-to-end rich media collaborative applications for voice, video, data and the web from desktop and mobile personal systems to room systems to the network core. The company's vision is to enable people to connect anytime, anyplace and with any device in a virtual experience as natural as being there. Headquartered in Pleasanton, Calif., the company employs more than 1,200 people worldwide and has regional offices throughout the U.S., Europe, Latin America and Asia. Additional information can be found at <http://www.polycom.com>.

Appendix 1: The Importance of Driving Adoption

Conferencing applications deliver benefits to the enterprise every time they are used. Whether the goal is to save money, be more efficient, or do something that cannot be done any other way, every manager needs to drive the use of conferencing applications for his team in order to derive the planned for or hoped for benefits. This is particularly true for videoconferencing because unlike the other conferencing modes, videoconferencing entails a reasonable capital expenditure. Applications like audio conferencing and web conferencing are typically delivered as pay by the minute services. Therefore, if these services are not used, the organization does not incur any costs. With videoconferencing, companies have to shoulder a fixed monthly cost whether the equipment is used heavily, lightly, or not at all.

Through our own experience and discussions with conferencing managers, Wainhouse Research has identified a host of “tricks and tips” that enterprises can use to speed and promote the use of conferencing applications, thereby helping the enterprise maximize the hard and soft returns on their investments. These include:

- Ensuring that the conferencing room environment (lighting, sound, display systems) are conducive to hosting efficient and satisfying meetings
- Deploying the appropriate centralized scheduling systems for your global meeting environment.
- Providing the technical support resources needed to make every meeting successful
- Promoting the company’s investments in electronic meeting tools via internal newsletters, the corporate Intranet, and in team meetings.
- Soliciting endorsements from senior management and encouraging managers to lead by example by using conferencing.
- Working closely with the corporate travel department to promote conferencing as a cost-effective and efficient alternative to business travel.
- Closely monitoring user satisfaction with all conferencing services.

Appendix 2: The Proper Tool for the Need

The conferencing and collaboration industry today offers users a wide variety of meeting and presentation tools to meet a variety of user requirements. Selecting the right tool for the right task is as important in business communications as it is anywhere else. A positive conferencing experience depends upon the selection and effective use of the right conferencing tool.

The Different Flavors of Conferencing

Audio Conferencing

Since its invention over 100 years ago, the telephone has become the staple of communications throughout the business world. And thanks to its legendary 99.999 % reliability (often called the “five-nines of reliability”), the PSTN (public switched telephone network) is the gold-medal standard by which other communication services are measured.

With over 20 billion minutes of usage per year and an annual unit volume growth rate of over 20%, audio conferencing remains the most commonly used form of conferencing today. This popularity is not surprising considering ubiquity of the PSTN network and the ease-of-use, familiarity, and widespread availability of low-cost, standard endpoints (i.e. telephones).

Considering the global acceptance of the telephone, it is no surprise that audio conferencing is the most commonly used form of conferencing today.

Audio conferencing is not without its weaknesses, however. A recent survey revealed that 90% of audio conferencing participants multitask during their audio meetings instead of focusing on the topic at hand.¹ In addition, audio conferences do not allow participants to share non-verbal cues. Just how important are these non-verbal cues? A 1972 study by Albert Mehrabian found that only 45% of the emotional meaning of a message is communicated by a person’s spoken voice. The remaining 55% of a message is communicated through non-verbal cues including gestures, posture, and facial expressions.² Therefore, despite the obvious benefits, audio conferencing is not the perfect communication tool.

Videoconferencing

Human beings are inherently visual beings. We want to see as much as we want to hear. Where audio conferencing fails, videoconferencing excels by allowing participants to share both verbal and non-verbal cues. By allowing people not only to hear but also to see other participants, videoconferencing enables

¹ 2004 Russell Research survey of 385 audio conferencing users (www.russellresearch.com).

² Nonverbal Communication – Albert Mehrabian, Chicago : Aldine-Atherton, 1972

more effective communications and fosters an environment of interaction and collaboration. In addition, participants on-camera cannot easily multitask or be distracted, which further enhances the overall impact of the meeting. The “sweet spot” for videoconferencing remains high-interaction meetings between a relatively small group of participants or locations.

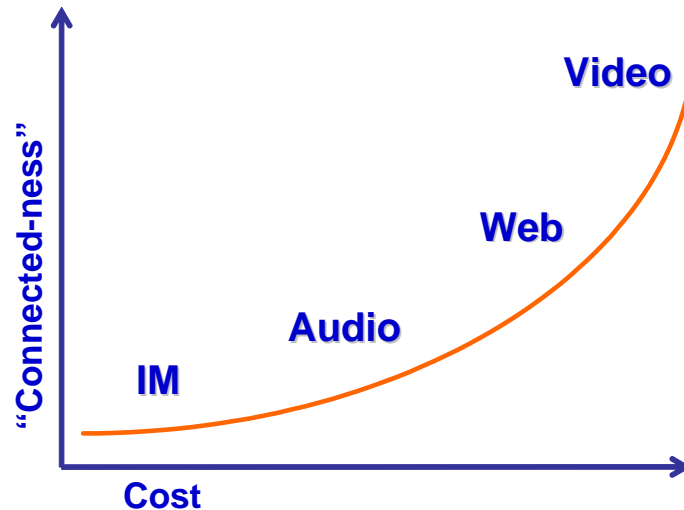


Figure 6: Costs vs. "Connected-ness" Curve

Web Conferencing

Web conferencing enables meeting attendees to see and sometimes share the desktop, file, or application on a presenter’s computer. While videoconferencing is about “see me,” web conferencing is about “see what I see.” Web conferencing is accompanied by an audio conference so that attendees can hear the presenter as well. The rapid growth of web conferencing is due to the fact that users need only an Internet-connected computer and a telephone, both of which are available on virtually every desktop. While the ability to share PC content and presentations is a key part of many business meetings, most web conferencing applications do not include the transmission of live video. Therefore, the same non-verbal cues missing from audio conferences are missing in most web meetings.

Video Streaming

Streaming (audio and video), also known as web-casting when conducted over the Internet, is the equivalent of broadcasting. The broadcast may be live or recorded, and the information flows only one-way which means that there is no user interaction. Streaming provides a cost-effective and convenient way to include “view only” participants in meetings with any combination of audio, video, and content. However, the inability for remote participants to interact with other meeting participants makes streaming a poor choice for collaboration sessions, but an ideal venue for disseminating information to any number of remote participants. Indeed, for presentations to large audiences, streaming is typically the most appropriate tool.

Unified Collaborative Communications

Unified collaborative communications (UCC) is the latest technology trend in the conferencing industry. The UCC solution combines audio, video, web, presence and instant messaging, and sometimes both real-time and non-real-time messaging into a single environment. Users can access the UCC solution from a dedicated computer-based application (portal), a PBX handset, or even through a high-level application such as a CRM solution wherein conferencing and collaboration is embedded as an add-on function. The technology enables a natural progression from text chat to audio and video when needed, while also enabling multipoint meetings to be launched as required. UCC solutions promise to make rich media communications more reliable and more suited to the everyday workflow processes at most enterprises.

When Conferencing May Not Make Sense

Wainhouse Research does not believe that conferencing should be used exclusively as a replacement for business travel. While it is true that travel continues to become more difficult and conferencing/collaboration solutions continue to be more elegant and less expensive, there are times when an in-person meeting is clearly appropriate, such as the first meeting between a vendor and client or a multi-day, hands-on training session. Indeed, teleconferencing can replace travel, but the real value is in understanding how teleconferencing can *complement* travel.

Selecting the Appropriate Conferencing Tool

In selecting the optimal conferencing tool, users must consider the nature of their requirements and the potential benefits (and weaknesses) of their conferencing options. The most important considerations are the size of the audience, and the intended level of interaction. In many cases, the right choice will include several different conferencing vehicles. For example, a quarterly earnings call might include a video conference between several key locations, an audio conference to permit other remote users to participate, and a live stream of the meeting to thousands of viewers around the world.

The table below provides guidance on selecting the right conferencing venue.

	Audio Conf	Videoconference	Web Conf	In-person visit	Streaming
Video cues	No	Yes	No	Yes	No
Presentation data	No	Sometimes	Yes	Yes	Yes
Collaboration environment	Low	High	High	High	Zero
Ease-of-use	High	Medium	Medium	Low	High
Equipment cost	Low	High	Low	Zero	Low
Network cost	Low	High	Low	Zero	Low
Other expenses	Low	Low	Low	High	Lo
Meeting size 1-5	Good fit	Excellent fit	Good fit	Excellent fit	Good fit
Meeting size 5-25	Good fit	Medium fit	Good fit	Excellent fit	Good fit
Meeting size >25	Poor fit	Poor fit	Good fit	Excellent fit	Excellent fit

Figure 7: Selecting the Right Conferencing Venue

Appendix 3: Travel Reduction Example Assumptions

The following table highlights the cost and usage assumptions utilized for the travel reduction example within the text of this document.

AVERAGE TRIP INFORMATION	
Flight cost (round trip)	\$450
Flight duration (each way)	3 hours
Driving time to/from airport—each way	1 hour
Car service cost – each way	\$75
Days for the average trip	2
Hotel nights per trip	1
Hotel cost per night	\$100
TRAVEL MEETING INFORMATION	
# of Participants Per Travel Meeting	5
# of Travelers Per Travel Meeting	4
Typical Meeting Duration	4 hours
COMPANY MEETING PATTERNS	
# of Trips Per Average Travel Employee	3 / month
% of Trips that are Domestic	100%
EMPLOYEE INFORMATION	
Average Traveling Employee's Salary	\$80,000
Cost of Employee Benefits (% of Salary)	25%
Days / Year Each Employee Works	220
Hours / day Each Employee Works	9

VIDEOCONFERENCING USAGE COSTS	
ISDN Usage Fees	\$40 / hour
Monthly Line Rental Fees – Per Site	\$120
Multi-Point Bridging Fees – Per Site	\$44 / hour
VIDEOCONFERENCING ADOPTION	
Min. % of Travel Meetings Changed to VC	10%
Max. % of Travel Meetings Changed to VC	60%
Likely % of Travel Mtgs. Changed to VC	40%
Min # of Employees Using VC	5
Max # of Employees Using VC	15
Likely # of Employees Using VC	10
VIDEOCONFERENCING INVESTMENT (\$)	
Total Equipment Investment	\$100,000
Systems Included in Above Investment	10
% Spent on Maintenance Per Year	15%
Yearly Cost of VC System Management	\$40,000
Anticipated Life Span of Equipment	3 years

Figure 8: Hard Cost Savings Example - General Assumptions