

Video Conferencing: The Next Best Thing To Being There

With the exponential benefits it offers from productivity to collaborative efficiencies, it is no wonder video conferencing has evolved from a “nice to have” technology into a mission critical business tool.



AWAKENING OF A COLLABORATION BEAST

Today, with ever-increasing competitive business demands for higher work productivity and business efficiencies, video conferencing has emerged as an all-important mission critical tool. In particular, video conferencing technology facilitates business communications to a significant extent, by effectively removing the need for an organisation’s individuals to travel, while enabling real-time discussions between geographically dispersed business units. Most importantly, video conferencing can meet the collaboration needs of an increasingly virtual and mobile workforce.

KISS OF LIFE

When the very first versions of videoconferencing technologies were introduced, video conferencing calls were delivered over ISDN (Integrated Services Digital Network) networks; or simply, traditional telephone lines. Although video conferencing offered various unprecedented business capabilities like global availability, a darker side which included limited reliability, poor quality, as well as the high costs required to purchase and manage expensive, complex ISDN switching equipment for large-scale business deployments, soon dampened any buoyant hopes of this technology emerging as the next best alternative to analog communications.

In the mid 90s, a white knight emerged in the form of an Internet Protocol (IP) shining armour arrived at the scenes to overhaul all of the disadvantages listed above, providing a kiss of life to businesses, enabling them to host video traffic on their Local Area and Wide Area Networks (LAN and WAN) effectively. The IP (Internet Protocol) revolution has lead to “IP everywhere”, making the transmission of video conferences significantly less expensive, easier to use, more reliable and more scalable to meet business requirements. Suddenly, businesses were now able to utilise high connection speeds, and the birth of new collaboration technologies that can facilitate high-impact, rich-media communications soon led to a watershed of new capabilities, as well as the rejuvenation of a powerful collaboration

beast which can not only support high bandwidth, but also deliver high quality rich audio and visual interactive collaboration experiences over converged IP networks.

A COLLABORATION DREAM COME TRUE

There are three main types of video conferencing – room-based, Telepresence and desktop, or an integration of all three – which most businesses utilise today. Firstly, room-based systems typically include single screens mounted on the walls or on movable carts. Telepresence will usually include two or three large screens mounted on the wall, along with matching furniture in every Telepresence suite and directional acoustics. The images on the screens are the actual size of the people, and everyone appears to be sitting around the same table at the same time. Finally, the desktop video conferencing option typically includes video displays on desktop computers, laptops and IP hard phones. Room-based and Telepresence are expected to be the most popular choices amongst businesses over the near future, while desktop video conferencing is seen at its infancy adoption stage with numerous obstacles yet to be overcome.

There are many collaboration tools available today (audio conferencing, web conferencing, instant messaging and email) but all of these are not visually driven, which makes video conferencing a much more viable and appealing business collaboration asset. From video podcasts to broadcast television, the quality and ubiquity of videoconferencing communications are fast-revolutionizing businesses by transforming the ways by which individuals can interact – whether from a desktop PC, in a conference room, or any other environments of choice and convenience.

PUTTING THE GHOSTS OF THE PAST TO REST

Traditionally, video conferencing places a heavy load on business networks due to its requirements for high capacity and low latency levels in order to facilitate real-time interactive audio and video communications. However, inherent problems like poor quality (in video, audio, or long latency and delays) leading to many frustrating disruptions or interruptions to video conferencing sessions – have become a thing of the past.

Increase In Bandwidth Capabilities

	Differences in Bandwidth	
	Then	Now
# of Systems Installed	30	50
Typical Call Speed	384 kbps	1 Mbps
Video Resolution	CIF (320 x 240)	720p (1280 x 720)
% of Systems In Use Simultaneously	20%	30%
Total Bandwidth Utilised	2304 kbps (or 2.25 Mbps)	15360 kbps (or 15 Mbps)

Source: Wainhouse Research White Paper, 2010¹

The table above illustrates the increase in bandwidth capabilities from then to now.

¹ Telepresence and high definition videoconferencing on converged IP networks, Wain Research White Paper, Dec 2010
<http://www.ivci.com/pdf/whitepaper-telepresence-and-hd-video-conferencing-on-converged-ip-networks-wainhouse.pdf>

BETTER SOLUTIONS



Video conferencing has evolved from the days of roll-around carts and video systems where often, audio and video tracks did not sync. The systems were also physically bulky and required specialised expertise to set up. Video quality produced was generally poor. Today, systems are of much higher quality. Getting a video conference up and running is now at a simple click of the mouse. The systems now also work over IP instead of ISDN, making business-to-business communications easier. Moreover, technological advances over the years have

witnessed the arrival of revolutionary high-resolution solutions today that can provide exceptional video, audio and content quality at any bandwidth, effectively enabling the smooth running of your executive meetings, weekly project sessions and customer conferences.

WIDER VARIETY

Today, in addition to the traditional room-based systems, there are high-quality desktop units that are available at a relatively low cost. Gone are the days of large TV-mounted systems and small TV-mounted systems. Current PCs are also of higher quality and thus, able to process information better, which leads to superior video quality.

THE ROI OF VIDEO CONFERENCING TECHNOLOGY

Apart from the main collaboration benefits mentioned, some of the most important justifications for the deployment of video conferencing technology are the returns it generates in the form of costs and enhanced employee productivity²:

Face-to-Face Interactivity Employees can meet spontaneously and face-to-face from different locations. Not only can work be completed quicker, video conferencing improves camaraderie, communication and employee morale. New video conferencing technology boasts excellent definition, picture and sound quality, plus data-sharing capabilities that greatly enhance the sharing of knowledge in an enriched communications environment.

Travel Costs Although the reduction in travel costs is the main reason for most businesses during their deployment of video conferencing technologies, the real cost of travel really stems from the productivity lost for the time employees spend out of their offices, not to mention the costs in employee morale which can be derived from their time away from their homes and families.

Compliance New video conferencing software is based on standards allowing compatibility and easy integration with other audio-visual systems and scheduling protocols. If your business industry adheres to stringent compliance requirements, video conferencing can help encode data necessary for the FDA, Sarbanes-Oxley, etc.

² *Videoconferencing: Increasing productivity, while reducing costs, Search Unified Communications e-Guide, Feb 2010*
<http://www.ivci.com/pdf/whitepaper-videoconferencing-increasing-productivity-reducing-costs-techtargt.pdf>

Going Green The reduction in travel will not only reduce travel costs for your business, but also helps reduce your carbon footprint significantly. For businesses in countries where green regulations are in place, video conferencing can be a major step towards fulfilling it. In addition, employee talents, and even customers will be more attracted to your business, which is now seen as a “corporate socially responsible organisation”.

VIDEO CONFERENCING: THE NEXT “KILLER APP”

Along with the improving economy, more businesses are looking to deploy video conferencing to acquire a more competitive edge. There are also an increasing number of businesses going global as collaboration is now being increasingly contemplated as part of a broader Unified Communications strategy. With the exponential business benefits it offers, it is no wonder video conferencing is experiencing a phenomenal growth to become the essential mission critical tool to facilitate inter-business and intra-business communications today. Moreover, businesses can now take advantage of leading-edge new video conferencing solutions which boast extended capabilities. With video conferencing communications platform, your business teams can now communicate, collaborate and learn more effectively, quickly and conveniently – making it an absolute collaboration dream come true.



KEY SUMMARY

Video conferencing has emerged as an all-important mission critical tool in order to meet increasing business calls for higher productivity and efficiency.

The main drivers for adoption of video conferencing technology include: enhancing business communications by reducing travel; enabling real-time discussions between geographically dispersed business units, as well as meeting the collaboration needs of an increasingly virtual and mobile workforce.

The very first versions of videoconferencing technologies were delivered over ISDN (Integrated Services Digital Network) networks.

The arrival of new Internet Protocol standards reduced costs and enhanced usage, reliability and scalability for video conferencing delivery.

Three main types of video conferencing businesses utilise today include room-based, Telepresence and desktop conferencing, or an integration of all three.

Video conferencing has evolved over time with the availability of better solutions and wider variety of technologies.

The deployment of video conferencing helps businesses secure a competitive edge with enhanced productivity and reduced business overheads.

IN FOCUS

Choosing The Right Video Conferencing Solution

Looking to implement video conferencing within your organisation? What makes smart spending, for the right investment? With the birth of new telepresence systems, along with IP video refreshing a whole new set of alternatives for smaller business setups, shopping for a single specific solution which represents the right fit for your business needs can present quite a task.

Cisco offers video conferencing solutions for various business levels, from lower end home video solutions for Small Businesses right up to high-end High Definition (HD) Telepresence for Medium Enterprises. If you are looking to implement a video conferencing solution for your organisation, you may want to consider some of these Cisco offerings which offer the right capabilities to suit your workgroup size, business level and requirements. And of course, within your budget.

CISCO WEBEX - ANYTIME, ANYWHERE

Cisco Webex is a web conferencing technology that allows you to connect your employees, partners and customers to your business via live, interactive audio, data, and video conferencing. WebEx is suitable for businesses sized between 1 to 3000, effectively enabling global presence that was previously accessible only to larger organisations with hefty budgets. Cisco WebEx solutions are delivered as software-as-a-service (SaaS) over the web, so they're easily accessible from anywhere in the world, on any computer platform. There's no hardware to buy and no software to install. Just a low, predictable, monthly fee - allowing smaller businesses with limited budget to leverage on this worldclass online collaboration platform.

CISCO TELEPRESENCE - COLLABORATION MADE EASY

Cisco TelePresence solutions empowers your business with unprecedented video conferencing capabilities where everyone in your organisation, everywhere, can be more productive through face-to-face collaborations. The Cisco TelePresence portfolio includes system endpoints, management software, multipoint switching, collaboration tools, intercompany connectivity, and lifecycle services-all tightly integrated to a suite of other business video and collaboration technologies to deliver compelling end-user applications across all business levels.

Personal Telepresence

These solutions are streamlined for private offices, at home for telecommuting or remote locations for workers on the go. This includes desktop systems Telepresence solutions specifically designed for the individual workspace which provide real-time face-to-face communication. Recommended solutions to get started with include: Cisco Tandberg EX Series, MXP Series, MOVI Series and E20 Series.

Immersive Telepresence

This category of solutions provides optimised, adaptive Cisco Telepresence rooms for the best quality face-to-face communications and collaboration. Recommended solutions to get started with include: Cisco Tandberg Telepresence T1 and T3 Series.

Multipurpose Telepresence

This category of Telepresence media and collaboration solutions provides for the widest range of multipurpose rooms and collaboration environments.

CISCO TELEPRESENCE AT A GLANCE

Endpoints	Infrastructure	Cloud Services	Accessories
<p>Immersive</p> <ul style="list-style-type: none"> • Cisco TelePresence System 1300 • Cisco TelePresence System 3010 • Cisco TelePresence System 3210 • Cisco TelePresence T3 • Cisco TelePresence T1 <p>Multipurpose</p> <ul style="list-style-type: none"> • Cisco TelePresence Profile 42-inch • Cisco TelePresence Profile 52-inch Dual • Cisco TelePresence Profile 65-inch Dual • Cisco TelePresence 6000 MXP <p>Personal</p> <ul style="list-style-type: none"> • Cisco IP Video Phone E20 • Cisco TelePresence EX60 • Cisco TelePresence EX90 • Cisco TelePresence Movi with PrecisionHD USB Camera • Cisco TelePresence System 500 • Cisco TelePresence System 1100 • Cisco TelePresence 1000 MXP • Cisco TelePresence 1700 MXP <p>Solutions Platform</p> <ul style="list-style-type: none"> • Cisco TelePresence Codec C40/C60/C90 • Cisco TelePresence Edge 95/75 MXP • Cisco TelePresence Quick Set C20 	<p>Call Session Control</p> <ul style="list-style-type: none"> • Cisco TelePresence Video Communication Server • Cisco Unified Communications Manager <p>Conferencing</p> <ul style="list-style-type: none"> • Cisco TelePresence MCU 4501/4515 • Cisco TelePresence MCU 4203/4220 • Cisco TelePresence MCU MSE 8510/8420 • Cisco TelePresence MSE 8000/8050 • Cisco TelePresence Multipoint Switch • Cisco TelePresence Server 7010 • Cisco TelePresence Server MSE 8710 <p>Media Services</p> <ul style="list-style-type: none"> • Cisco TelePresence Content Server • Cisco TelePresence Recording Server • Cisco TelePresence IP VCR 2210 • Cisco Media Experience Engine • Cisco TelePresence Advanced Media Gateway 3610 • Cisco TelePresence IP GW 3510 • Cisco TelePresence ISDN GW 3241 <p>Management</p> <ul style="list-style-type: none"> • Cisco TelePresence Manager • Cisco TelePresence Management Suite 	<p>Managed & Hosted Services</p> <ul style="list-style-type: none"> • Intercompany Cisco TelePresence Services • Cisco TelePresence Directory • Public Cisco TelePresence Suites <p>Service Provider Exchange Solutions</p> <ul style="list-style-type: none"> • Cisco TelePresence Exchange System 	<ul style="list-style-type: none"> • Cisco TelePresence PrecisionHD Camera • Cisco TelePresence PrecisionHD USB Camera • Cisco TelePresence Remote Control TRC 4 • Cisco TelePresence Remote Control TRC 5 • Cisco TelePresence touch screen <p>Industry Solutions</p> <ul style="list-style-type: none"> • Cisco HealthPresence • Cisco TelePresence Educator MXP • Cisco TelePresence Intern MXP • Cisco TelePresence Tactical MXP

OTHER RECOMMENDED OFFERINGS

Cisco Umi 720 - Home Conferencing Solution for Small Businesses

Umi is an extension of Cisco's high-end TelePresence line for enterprises. This home conferencing platform is most suitable for enterprises in education and health care industries, delivering resolution as high as 720p and is designed to work on a home broadband connection with 1.5M bps (bit-per-second) downstream and upstream speed. Cisco Umi 720 includes a HD camera, a console and a remote and is available for \$399.

Cisco Unified Videoconferencing 3500 Series

Cisco Unified Videoconferencing 3500 Series products are designed for organisations with video environments predominantly comprising standard definition (SD) and desktop endpoint.

Cisco Unified Videoconferencing 5200 Series

Cisco Unified Videoconferencing 5200 Series is a solution specifically designed to provide for high-definition video environments.

For more detailed information about Cisco videoconferencing products, solutions and services, please visit www.cisco.com

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