Understanding Video Conferencing

BCS Global
Video Conferencing Guide

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Introduction

Video Conferencing Revisited

Video conferencing is not a new concept to many executives. Those who have never used video conferencing before often question whether video conferencing services can justify their technology investment. Executives who have used video conferencing on legacy platforms such as ISDN have often in the past experienced frustration with the complex meeting setups, unreliable connections, poor visual quality and high cost of operations.

However, over the past few years, advanced technology, infrastructure development and changing business and economic factors have dramatically improved the accessibility and usability of video conferencing.

Telepresence and professional high definition (HD) video systems bring video conferencing experiences to a new level. Users can enjoy video sessions with superb video quality as if they are in the same room with their correspondents, even when they are miles apart. Combined with the reduced cost and available of high speed IP networks, video conferencing has entered a new era.

How can businesses benefit? Video conferencing system vendors focus on building business cases based on cost savings, green initiatives and productivity. It is generally accepted that video conferencing can help businesses to save costs through travel reduction and improved productivity for remote workers and virtual teams while reducing carbon emissions.

Video conferencing can affect how business is conducted in the organization. An effective and reliable video communication solution can brings many possibilities to the business, and deliver extra value.

In this Video Conferencing Guide, you will learn the elements you need to run effective video conferences within your business, and the best practices for successful video meetings.

Why use video conferencing?

Uncovering the benefits of video conferencing

Video conferencing can help businesses to save significantly - travel reduction, reduce carbon emissions and improved productivity are usually the top of the list of benefits. Video communications can also create values to your businesses through:

Improved employee satisfaction: Video conferencing allows staff in different locations to see each other on a regular basis, which enables them to become better acquainted and helps to improve interactions, job satisfaction levels and overall morale.

Improved work/life balance: Less business travels mean employees will spend less time away from their family and personal interests, and in doing so they could be happier and more productive.

Cultivate business relationships: More face-to-face meetings can be conducted over video and at lower costs to help you to build better relationship with your customers and business partners.

Faster decision making: Video communications enables data, documents and images to be shared instantly. With today's high definition video equipment, materials and designs can be observed in great detail with instant feedback from stakeholders, to speed up decision making. This in turn speeds up products or services to market, and can even help to solve customer service issues.

Immediate access to remote experts: The entire organization can gain access to remote experts without paying for travel costs. For example, any incident on the production floor can be inspected by experts in real time even if they are on different continents.

Determining the right solution

Things to consider

Cost Vs. Benefits

Building a video conferencing service in your organization is not a one-off capital investment. When selecting the best fit solution for your organization, several points need to be considered as part of the total cost of ownership (TCO) for the solution.

Equipment costs: The video system components and accessories generally include codecs, cameras, displays, microphones, audio speakers, and/or video gateways, multipoint control unit (MCU) and other video infrastructure.

Software costs: Centralized management and scheduling tools as well as possible ongoing software upgrades and enhancements.

Room costs: You may need special acoustic or lighting treatment if using a video system in an existing room to get the best possible visual and audio quality.

Maintenance costs: Daily systems and network maintenance and possible system patches, updates and enhancements. .

Management and support costs: Staff may be required to manage the videoconferencing network and facilities, to schedule meetings, to provide assistance during meetings or setup, or to oversee maintenance of all of the components, etc.

Network costs: Costs for the overall video network as well as the costs associated with connecting each site to that network, and actual network usage for video meetings.

Training costs: Possible training on how to schedule and set a conference session and to train users whenever the equipment is upgraded or enhanced.

Needs Analysis

A thorough analysis can help you to determine what types of solutions and services work best for your organization. This may depend on:

- Your office locations
- Number and location of off-site employees
- Where your key business partners and customers are located
- Processes within the organization such as products and services development, production and distribution
- Inter-organization communication process
- Communication process with business partners and customers
- Who and what to conference e.g. product training, departmental updates, brainstorm sessions etc.
- Type of conferences e.g. training, town hall meeting etc.
- Frequency of your meetings
- Length of the meetings

Based on your needs, you can determine what types of solutions are best for your organization.

Determining the right solution

Understanding Video Conferencing Solutions

Your video conferencing solutions can comprise of one or a mixture of the following systems:

Telepresence

Telepresence is the high-end video conference environment that can provide the ultimate video experience. Meeting participants feel as though they are having a meeting in the same room. Telepresence requires higher bandwidth and fully managed networks. Network performance is critical to the high quality experience offered.

Group Video Conferencing Systems (group or room system)

Group video conferencing systems are available in different configurations to meet the needs of small to large meeting rooms, with single or multiple cameras and displays, in standard and high definition, and with a host of options and accessories. These systems are ideal when there are groups of individuals at multiple locations that need to meet together in a face-to-face environment.

Desktop or Personal Video Conferencing Systems

Personal video conferencing systems are best for personal or single-person use. There are many types of desktop solutions ranging from video VoIP phones, executive desktop systems, to PC-based systems. Personal systems are optimized for the use in individual workstations, home office or anywhere with IP connection.

Management Systems

Management systems enable you to monitor and manage your video communications network, which typically include Systems Management, Directory Management, Software Updates, Provisioning, and Reporting. With a management system, you can perform remote diagnostics, systems updates and upgrades, resources control, service provisioning, user management and generate reports.

Scheduling Tools

Scheduling tools can help to ensure required resources including physical rooms, people, connectivity and equipment are available for each of the conference sessions. As the usage and scale of your video services increase, the more sophisticated the tool you'll need.

Multipoint Control Unit (MCU)

MCUs, often referred as a "bridge", enable you to connect three or more video and voice participants into a single conference. Depending on the capabilities of each of the participant's endpoint, an MCU can provide audio-only services or any combination of audio, video and data services.

Video Infrastructure

For advanced conferencing features, you will require video infrastructure to ensure users on different types of networks and bandwidth can connect to a single conference. Also calls across different networks and user domains can be connected securely.

Service Provision Models

Your video conferencing service can be provided through in-house service management, hosted service or through an outsourced managed service.

In-house service

A systems integrator will usually be appointed to design and implement the systems. Your organization will acquire all the required components. Point-to-Point video calls can be connected directly within organization's IP networks. Multi-point conferences are either managed in-house or out-sourced to bridging service providers.

Hosted service

Similar to an in-house service approach, your organization will acquire all the required solution components and have them hosted in-house or by your service provider. Your service provider will provide video services and related support and management according to the service level agreement.

Managed Service

In a managed service approach, your organization will acquire your endpoints either through your suppliers or your service provider. Multi-point conferences and other advanced video features and applications are provided through systems and infrastructure of your service provider. Your service provider will provide an integrated managed service which typically includes bridging, network and service management, user support, and scheduling services.

	In-house Service	Hosted Service	Managed Service
Capital Investment	High (Investment on endpoints and infrastructure)	Medium to high (Investment on endpoints and all or part of infrastructure)	Low (Investment on endpoints only)
Operational Costs	High	Low to medium	Low
Video Service Provisioning	In-house or out sourced bridging service to service providers	Service provider	Service provider
Service Support and Management	In-house IT resources or service provider for outsourced bridging service	Service provider	Service provider
Scalability	Low	Low to medium	High
Business Continuity	Low (subject to availability of in-house infrastructure)	Low to medium (subject to availability of in-house infrastructure)	High

Video Communications Service Provisioning

Choosing the right service provisioning model

Some organizations prefer in-house video conferencing services. For those organizations that have light video conferencing usage and a simple infrastructure, in-house service may be good enough for them. For enterprises, running in-house services allows them maximum control over their services and they can afford the resources required for service support and management.

However, as video conferencing develops, the complexity of video systems and the scale and geographic scope of the service may be much more than the in-house support teams are trained and capable to address, in addition to escalating resource cost concerns.

Why use managed services?

Higher service reliability and availability

Service interruptions and service down time greatly reduces user satisfaction, usage and performance. Managed service providers can you help to improve video service availability and reliability by allow you to leverage:

- The Latest service and network monitoring and management technology
- A Pool of highly competent video and network experts for service implementation and project management
- Extensive experience and knowledge on troubleshooting video issues
- Helpdesk services for immediate support during your video calls

Improved security

Legacy video platforms were usually islands of communication networks, however, users today demand more than intra-network communications. IP technology makes inter-company high definition video conferencing and Telepresence possible. Connectivity of individual company networks may create security risks to organizations. Alternatively, a managed service provider can provide highly secure, high speed interconnections across networks using different carriers.

Better flexibility and scalability

As your video usage increases, especially multipoint conference sessions, your bridging service capacity may not be able to catch up with the increasing bridging demand. Expanding bridging capacity is a complex process, in addition to the costs and resources involved. A managed service provider can always provide you with the extra bridging capacity you require without needing to change your existing infrastructure.

Managed service providers can also provide you with the capability to integrate your legacy ISDN systems to the latest IP systems without additional investment on IP-ISDN gateways that may be phased out in the near future. Many managed service providers can also facilitate interconnection of standard definition endpoints, high definition endpoints and Telepresence suites. This provides you with a scalable solution and a migration path with the flexibility for upgrading your video conferencing services as and when you are ready.

Higher cost efficiency

Managed service providers can take away the burden of supporting and managing your video systems and services from your scarce IT workforce. Further cost savings can also be observed from the reduction in training costs of your IT specialists, and the maintenance costs of your video conferencing systems.

Best Practices for Successful Video Meetings

Meeting environment

These days video meetings can take place anywhere such as a boardroom, workstation, home office, worksite or even a café. A few simple adjustments to your meeting environment can greatly improve your video experience.

Background

- Avoid bright and bold colors or patterns on background. Neutral colors, medium contrast and soft texture are recommended. White color should also be avoided for better image contrast.
- Avoid moving objects such as curtains and people walking behind you. This can reduce image quality and distract your meeting participants.
- Avoid placing the camera facing a doorway.
- Avoid dark or reflective table tops. Light color, neutral wood top would be a good choice.
- Avoid unnecessary furniture in the room.

Lighting

- Avoid direct light on people, presentation materials or the camera lens to avoid harsh contrast and shadows.
- Avoid color lighting that may tint your image.
- Don't place reflective whiteboards or other reflective objects directly behind people or where lighting can reflect and cause glare.

Camera / Endpoint

- Position the camera or endpoint on top of the center of the monitor or directly at you to ensure eye contact with the far ends.
- Set the unit to "Automatic Answer", but mute the microphone.

Best Practices for Successful Video Meetings

Meeting etiquettes

Similar to your physical face-to-face meetings and presentations, there are techniques that can ensure your video meetings run smoothly and successfully .

Preparation

- Make sure all the equipment is functioning correctly before your meeting begins.
- Try to pay attention to the kind of clothes you wear for the meeting. Bright and bold colors can be very distracting on a video screen. So try to keep clothing colors as muted and solid as possible.

During the meeting

- Maintain eye contact with the video camera. This will usually result in natural gestures and a comfortable speaking style that is easy for everyone else to follow.
- Avoid excessive movement while you are speaking. Try to keep your motion and movements during the discussion down to a minimum.
- Microphones can be very sensitive. Small and inconspicuous sounds like tapping pencils on a desk, or other similar sounds can be distracting. Your whisper can be picked up and amplified by the microphone, try not to do that if you do not want everyone else to hear.
- In a multi-point meeting, it is good practice to mute your audio when you are not speaking to avoid echoes and feedback. This is especially relevant in the case of a voice–activated MCU since capturing the conference audio will also result in capturing the conference video.
- Before the meeting gets underway, introduce each of the conference participants, including their position, affiliation or reason for attending. You want people to put a name to each face and understand each individual's role in the discussion.
- Avoid interrupting when participants are speaking so that all speakers can be clearly heard.
- Watch for body language and gestures that may indicate that a participant would like to ask a question or make a comment or that they are confused or annoyed. Stop and invite their participation.

BCS Global, your Video Partner

About BCS Global

BCS Global is one of the fastest growing worldwide providers in Video Conferencing and Collaboration services for two simple reasons – we provide excellent customer services backed by video experts around the world; and we make video conferencing work the way it should.

The BCS Global Virtual Presence solution empowers our customers to realize the promise of what video conferencing should be. Whether your needs are for traditional, Standard Definition video conferencing in a boardroom, higher quality High Definition solutions or even the most cutting edge technologies such Telepresence room solutions, BCS Global can provide a solution that works for you.

In the Conference room or on the executive desktop, BCS Global is a leader in providing services across any device or network. As the only truly global video conferencing service provider, our Global Video Exchange is completely unique in the industry, providing your company with the right solution and support regardless of your organization's size, location or budget. With close to 10 years of leading edge video conferencing, IP communications and Collaboration experience, BCS Global delivers an experience aimed at exceeding our customer's highest expectations.

To learn more about how BCS Global can help you excel in video communications, please visit www.bcsglobal.com.

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