

Video Conferencing System Buyer's Guide

Video conferencing is the greatest advancement in business communications technology since the dawning of the mobile phone. Video enables users to connect face-to-face while being in different ends of a building, or opposite sides of the world. With so many options available, the marketplace full of video communications solutions may seem overwhelming to new users.

Before getting into the options available, there are some things you must ask yourself to determine what your goals for video communications equipment are within your organization and determine the proper equipment you'll need to accomplish those goals.

Pre-Purchase Considerations:

- How many sites are you looking to connect via video?
- Do your customers or business partners have video conferencing solutions?
- How much money can you invest?
- How often do you anticipate using your equipment?
- Will your equipment have a dedicated space?
- How much bandwidth will you have available? How about your participants?
- What is the size of your meeting space?
- Do you want to be able to call multiple sites at once?
- How many people will participate at each site?
- Do you want to share PC-based information, such as PowerPoint presentations and documents?

The answer to each question will help determine what type of system will best fit your situation.

Budget

In many ways, the most important limitation is your budget. Just as with all other technological investments, a lack of available funding may be the limiting force when it comes to the scale of your installation and the number of functions you can expect from your new system. The low prices available from Video Conferencing Supply may help you stretch your dollar a little further, but you will still find it necessary, unless your budget is very large, to make sacrifices in some areas to ensure the functions you need are present. Determining which functions are needs and which are wants and which are completely unnecessary for your application is probably the most important step to ensuring you receive the full benefits video communications has to offer you, while staying within your desired price range.

The Benefits

Perhaps you're not quite ready to purchase a video communications system, but are looking into the idea, trying to see just how video conferencing can benefit your organization.

Most video conferencing systems are easy to use. The advantages your organization experiences with video will vary based on what communication methods and patterns you are currently using.

Below are a few examples of common business situations that can benefit from video conferencing systems.

Situation:

I hold regular meetings in-person with team members working remotely

Benefits:

Savings from reduced travel expenses.
Boosted productivity with less time wasted travelling.
Greater Employee satisfaction with more time at home.

My organization relies on voice conferencing and phone calls

Video can make your meetings more productive, with more involvement from all participants.

I'm a specialized doctor and need to consult with patients from around the world

Reduce patient stress by reducing travel for consultations
Increase the amount of patients you can see
Consult with other doctors remotely

I'm a teacher or professor

By reducing the cost, you can bring more specialists and guest speakers to your classroom and enrich the learning experience. You can also more easily share your expertise with classes around the world, without interrupting your life to travel.

There are a lot of remote workers in my organization

With video, they can easily join meetings without the expenses and lost time associated with travelling.

I spend a lot of money interviewing potential employees with specialized skills

Video can enable you to have a face-to-face meeting without needing to fly them to your office.

Video Conferencing, in a nutshell, increases productivity and reduces costs by providing on-demand, visual meetings.

The Basics

A video communication system enables participants to perform collaborative functions even when they're in separate locations. A complete video conferencing system has five components, which can be purchased separately or can be included in a kit designed to meet a particular need. These components are designed for particular applications, and can be as simple or complex as your needs require.



Polycom EagleEye Camera

Camera

Cameras for video conferencing can vary widely, from the camera integrated in your computer display or mobile phone to full HD cameras with their own software to locate faces of participants currently speaking.

Display

Displays also come in various sizes with different performance specifications. Many times, you can use a flat panel television or computer monitor, but you can also purchase displays specifically engineered to deliver the highest possible performance. The display you want will generally depend a great deal on the application you plan on using it for, as well as your budget.

Microphone

If you're using a desktop system, the microphone included with your computer may be adequate. However, in full room solutions, ceiling-mounted microphones are often optimal. Microphones are also available in handheld, worn and tabletop varieties. Yet others will integrate with your current conference phone for audio pickup.

Speakers

During video communications within large spaces, specially designed speakers may deliver the best results to minimize feedback and deliver high-quality sound.

Codec/Software

Your video conferencing system needs some kind of software or codec so it can communicate with and find other systems. Open-standards codecs and software are often most desirable since they can communicate with any other open-standards system, regardless of brand.

Of course, there are almost limitless options for each component, and nearly infinite combinations. Some combinations will work better together, and others just make more sense. For example, you wouldn't want to use a camera with the ability to record at 1080p60 when you're using software only capable of processing 720p30.

Network Requirements

Although not specifically a part of your video conferencing system, your network must be able to support the increased bandwidth demanded by video conferencing applications. Your IT manager should be able to determine what upgrades or updates you need, and make sure to budget in this project when determining the total cost of your video communications project.

Buying Tips

First, determine your actual needs and make sure they are realistic. Remember that in most instances, organizations have to sacrifice in some areas to ensure the more important needs are met. Don't feel the need to purchase an immersive system if only the CEO is going to be communicating with the China office on occasion, and don't try to get by with a desktop system if you want to have an entire board room full of people involved in a video conference.

As always, be aware of your total cost and how that cost relates to your total budgeted amount. You don't want to end up with a fancy video conferencing system and not have enough money left over to expand your network's bandwidth capabilities.

Two Things You Should Never Sacrifice:

Frame Rate

Frame rate is, in most cases, more important than resolution. If you must choose between a faster frame rate or a higher resolution, you are more likely to see benefits from the higher frame rate than the higher resolution.

Audio

Audio performance is more important than video. This is because, even if you're having glitches with the video, you can still communicate vocally. However, if your audio is gone, your communication is generally lost. Poor or malfunctioning audio will result in lost productivity until audio is restored.

General Types of Video Conferencing Solutions

Video conferencing solutions can be divided into four basic types, although there are exceptions and many solutions seem to be hybrids or perhaps not fit into any category.

Telepresence

Telepresence solutions are video communication solutions designed to give the greatest sense of being present. Telepresence solutions consist of very large, High Definition displays (at least two, if not more), an HD codec, Hi Fidelity audio speakers and microphones. Telepresence solutions can be portable (although large) or integrated into the room. Telepresence solutions are generally very expensive and require a larger amount of bandwidth for the full effect.

Integrated

Integrated systems are designed for multiple participants in locations such as boardrooms, conference rooms and classrooms. Integrated systems are permanently mounted, and therefore are part of the room. Most times, integrated video conferencing systems are also designed for other functions. Such as the display can also be used for presentations or instructional videos, used as a digital sign, or consist of a projector and whiteboard for easy classroom use.

Set-Top

Set-Top systems are usually all-in-one microphone, camera and codec devices that sit on a monitor of your choice. Set-top appliance systems are designed for use in smaller rooms with small groups. Most set-top systems are installed on a cart, which enables mobility and easy transportation from room to room.

Desktop

Desktop video conferencing systems integrate with a user's workspace. Generally, desktop systems are sold with a software package and camera, but some may be compatible with your computer's integrated camera and microphone. Desktop clients are inexpensive and ideal for organizations with many remote workers.

Video Conferencing Etiquette

You'll experience the greatest benefits if you immediately start to follow general video conferencing etiquette. Just like any other form of communication, there are general rules that people can follow to ensure a more productive interaction.

The Environment

There are various distracting elements that can be eliminated in the room where your call is going to take place. Ensure all windows are closed (sunlight can cause a distracting glare), make sure photos and décor do not have reflective glass, and take down any mirrors. If your building has background music, be sure to shut it off in your room, and disable the PA speakers in the room, if possible.

The Equipment

Before the meeting begins, make sure all participants will be appropriately framed and all microphones are in place and plugged in. There's nothing more distracting than having to move the camera or plug in microphones after a meeting has begun.

Choose a Leader

Designate one person to answer questions. This will prevent everyone from talking at once.

Have an Agenda

You'll want to ensure that everyone has a purpose for being in the meeting, and make sure the meeting stays on task.

Clothing

Participants should not wear bright colors or busy patterns during videoconferences, since it can be distracting and some bright colors do not process properly through the camera's sensor chip.

Be Early

No one wants to listen to you test your equipment, so make sure you arrive early to check the connection and turn everything on.

Finding the Right Video Solution for your Organization

After learning some of the video conferencing basics from this overview, you are in a better position to choose your video conferencing solution. Video conferencing can be an invaluable tool for your business that can enhance your communications within and outside your organization.

Each video conferencing system is made up of unique variables – whether it be the hardware, software, physical space, users or network – and will perform accordingly. Your organization, especially if new to video communications, may benefit from a smaller installation before deciding on a full-scale deployment. By connecting just a few users in different offices, you may find yourself in a better position down the road to judge how video will be utilized in your organization.

If you find you still have questions, or need help determining which video solution will best help your organization reach its goals, please contact us. We would be happy to help you.