

A Beginner Buyers Guide to Videoconferencing Equipment

The technology that makes up a videoconference (also called a videoteleconference or simply VTC) is known as digital compression of audio and video stream in real time. The videoconferencing software or hardware that makes the compression happen is referred to as a codec (or sometimes it is called a coder/decoder). The achievement for rates of compression is up to approximately 1:500.

The digital stream of ones and zeros that is a result of all of this is then broken down even further into what is known as packets. These packets are then navigated by way of a digital computer network, whether it is an IP or an ISDN. Audio modems are used in the line of transmission, which makes full use of plain telephony network (abbreviated to POTS) in a variety of types of applications of low-speed, for example, videotelephony because they convert the digital pulse to/from analog waves in the audio spectrum range.

Other necessary elements of videoconferencing equipment include the video input which consists of a video camera or a webcam; the video output which is a television or computer monitor; the audio input, which is microphones; the audio output which often consists of loudspeakers that have a strong association with either the telephone or the display device and finally, the data transfer which is either an analog or a digital telephone network, and either the Internet or LAN.

At any given time the kind of videoconferencing equipment that is needed and how it is arranged about a room depends on the individual who is making use of the equipment (and his/her skill level) and the context in which the videoconferencing system is to be utilized.

Videoconferencing equipment falls under one of three kinds of setups. The equipment must all comply with H.320 standards and these standards vary depending on the kind of videoconference that will be taking place as well as the size in terms of people and place, that the conference is to be. The three kinds are room systems, roll-about units and desktop systems.

Room systems are geared towards videoconferencing involving a large group of individuals, for example a training session, a group interview, a debate a group meeting and so on. Room systems (sometimes referred to as dedicated systems) are usually housed in rooms custom built with videoconferencing in mind. They generally contain cameras and a number of computer monitors.

Room systems are all-in-one and have all necessary pieces of equipment contained together in a single location. These high quality remote controlled video cameras are known as PTZ cameras and can be maneuvered in a number of different directions. The console part houses the control computer, the hardware or software-based codec and any and all electrical interfaces.

Attached to the console is microphones known as omnidirectional microphones and also attached is a television monitor that comes complete with loudspeakers and/or could also include a video projector.

There are three kinds of dedicated (or room) systems and they include large group, small group and individual videoconferencing. Large group videoconferencings are big and cannot be moved from their original spot. Also these kinds are pricier and tend to be used for auditoriums and large sized rooms. Small group videoconferencing is sometimes portable while others are not. They are smaller in size, cheaper in price and are intended for smaller capacity meeting rooms. Individual videoconferencing is intended for individual users and are usually portable. Built into the console are fixed cameras, loudspeakers and microphones.

The most commonly used form of videoconferencing equipment is the roll-about unit and these kinds are most suited for small sized conferences or smaller capacity group meetings. The roll-about units are to be found in a cart that contains one or sometimes two computers, monitors, a camera, codec and any other essential equipment. The only drawback of the roll-about unit setup is the lack of access of a network in a conference room despite this fact.

Desktop systems are add-ons, such as hardware boards for example, that make it possible for a personal computer to become a device used for videoconferencing. A camera, microphone, software and boards are equipped to the computer and this allows the videoconferencing session to take place. The board contains of the codec and transmission interfaces and a number of camera and microphones can be made use of for the purpose.

The computer can connect to a variety of different websites but it most appropriate for one-on-one types of conferences. This form of a videoconference is also known as an e-meeting.

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