

Video Conferencing Glossary of Terms



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A

Algorithm A step-by-step problem-solving procedure. Transmission of compressed video over a communications network requires sophisticated compression algorithms. Some video conferencing systems offer both proprietary and standard compression algorithms.

Analog signals Audio/video signals currently used in broadcasting where the signal is represented by variable measurable physical quantities (such as voltage). Current TV and radio signals are analog, as are many telephone lines. (Contrast with digital.)

Aspect ratio The ratio of a picture's width to height. In video, this ratio is four units wide by three units high or 4:3.

Audio Add-On Allows a participant to join a video conference via audio (telephone) only. This can be done through one of the codecs or through the video bridge.

Audio conferencing Communication between three or more sites that are linked by a voice-only telecommunications medium.

B

Bandwidth In casual use, the amount of information that can be transmitted in an information channel. High bandwidth Internet access means those web graphics load quickly in your browser window. High bandwidth video conferencing means that the picture and sound will be clear. In computers, the speed at which data can be transmitted on a communications frequency. In telecommunications, the maximum frequency (spectrum) measured in Hertz or cycles per second, between the two limiting frequencies of a channel.

Bit (binary digit) The smallest unit of information with two possible states. Examples include:


- + One or zero
- + Yes or no
- + On or off

bps Bits per second (lower case is significant)

Bps or BPS (8-bit) bytes per second (upper case is significant)

Bridge or multipoint control unit (MCU) The piece of equipment that facilitates the communication of three or more sites in a video conference.

Broadband A high-capacity communications circuit/path. It usually implies a speed greater than 1.544Mbps. (Contrast with wideband and narrowband.)

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BRI - Basic Rate Interface (ISDN) Three digital signals over a single pair of copper wires: two voice (B) channels and one signal (D) channel. (e.g., voice and fax on a single pair of wires)

C

Camera presets Allows pre-defined camera angles to be programmed into a video conferencing system

Codec (Coder-Decoder) Video conferencing hardware that codes the outgoing video and audio signals and decodes the incoming signals. Prior to transmission, the codec converts analog signals to digital signals and compresses the digital signals. Incoming audio and video must be decompressed and converted from digital back to analog.

Compressed video When the vast amount of information in a normal television transmission is squeezed into a fraction of its former bandwidth by a codec, the resulting compressed video can be transmitted more economically over a smaller carrier. Some information is sacrificed in the process, which may result in diminished picture and sound quality.

Continuous presence Conference allowing each site to view other sites on a screen. Sites can be viewed in multiple configurations of a split screen. Ideal for when there are more than 5 sites or multiple people at one site.

D

Datarate The measurement for bandwidth in bits per second. In general, the higher the datarate, the higher the quality of video.

Desktop video conferencing Video conferencing on a personal computer. Most appropriate for small groups or individuals (compare with room-based video conferencing). Many desktop video conferencing systems support document sharing.

Dialing in Each site initiates the video call by dialing into the bridge.

Dialing out InView initiates the video.

Document camera A specialized camera used for taking pictures of still images (pictures, graphics, text pages) to be sent as part of a video conference.

Document sharing A feature supported by many desktop video conferencing systems that allows participants at both ends of a video conference to view and edit the same computer document.

Digital signals Audio/video signals represented by discrete variations (in voltage, frequency, amplitude, location, etc.). A digital clock, for example, displays the time as discrete numeric values rather than angular displacement of analog hands. In general, digital signals can be transmitted faster and more accurately than analog signals. As an example, music from digital compact discs is usually clearer than music from analog records. (Contrast with analog signals.)

E

Echo-cancellation Process of eliminating acoustic echo in a video conferencing room.

F

FCIF/QCIF Standards-based formats for communicating between video conferencing systems from different vendors. QCIF is one quarter of the resolution of FCIF.

Frame rate Frequency in which video frames are displayed on a monitor, typically described in frames-per second (fps). Higher frame rates improve the appearance of video motion. Broadcast TV (full motion video) is 30 frames-per-second.

Full duplex audio Two-way audio simultaneously transmitted and received without any interference or "clipping." A common feature of room-based video conferencing systems. Contrast with half duplex audio. Full motion video is equivalent to broadcast television video with a frame rate of 30 fps. Images are sent in real time and motion is continuous.

H

H.320 standard A widely-used video compression standard that allows a wide variety of video conferencing systems to communicate.

H.323 standard A new standard providing a foundation for audio, video, and data communications across IP-based networks, including the Internet. By complying to H.323, multimedia products and applications from various vendors can interoperate, allowing users to communicate without concern for compatibility.

Half duplex audio Two-way audio transmitted and received in turn (rather than simultaneously) so only one site can speak at a time. Contrast with full duplex audio.

Hybrid meeting A meeting that consists of a mix of conference users (i.e., video, audio, or document).

I

ISDN Stands for Integrated Services Digital Network. ISDN is essentially a digital network that will provide seamless communication of voice, video, and text between individual desktop video conferencing systems and group video conferencing systems. ISDN is expected to replace current telephone lines.

K

KBPS (Kilobits per second) The method of measuring the speed of transmission. The higher the KBPS or speed, the better the quality of the video conference.

M

Multipoint video conference Video conference with more than two sites. The sites must connect via a video bridge or multipoint control unit (MCU). (Compare with point-to-point video conference.)

N

Narrowband A low-capacity communications circuit/path. It usually implies a speed of 56Kbps or less. (Contrast with wideband and broadband.)

NTSC Standard for scanning television signals. Used in the U.S., Canada, and Japan.

P

PAL Standard for scanning television signals. Used in most European countries.

Point-to-point video conferencing Video conference between two sites. (Compare with multipoint video conference.)

Proprietary compression algorithm A vendor-specific algorithm for compression of a video signal. A video conferencing system using a proprietary algorithm can only communicate with a remote site using the same algorithm. Many vendors also adhere to standard compression algorithms to facilitate communication across platforms.

Protocol Defines the type of system the client is utilizing, including:

- + H.320 — universal algorithm
- + Continuous presence
- + Speed — the rate (and ultimately the number of lines) a conference uses. The more lines, the higher the speed and better picture quality. Speed runs in increments of 56kbps or 64kbps. Examples include:
 - 112: 2X56kbps
 - 128: 2X64kbps
 - 224: 4X56kbps
 - 256: 4X64kbps
 - 336: 6X56kbps
 - 384: 6X64kbps

Public room Video conferencing service offered to the InterCall customer base.

R

Room-based video conferencing Video conferencing using a sophisticated system. Appropriate for large groups. (Compare to desktop video conferencing.)

S

Speed matching Upgrades the speed of a lower channel codec to a higher channel conference.

Standard compression algorithm An algorithm convention for compression of a video signal. Adherence to standards allows communication among a wide variety of video conferencing systems, though not with the same clarity as two similar systems using a proprietary algorithm. H.320 is the most widely accepted standard in use today.

V

Video bridge Computerized switching system that allows multipoint video conferencing.

Video conferencing Communication across long distances with video and audio contact that may also include graphics and data exchange.

Video streaming Streaming is a server/client technology that allows live or pre-recorded data to be broadcast in "real time," opening up the network for traditional multimedia applications such as news, training, entertainment, advertising, and a host of other uses. Streaming enables the Internet or company Intranet to act as a broadcast medium for audio and video.

Voice-activated video conference Refers to a type of video conference in which the cameras are (1) activated by sound, (2) switch to the site where the sound is originating, (3) display that site on participant monitors.

W

Wideband A medium-capacity communications circuit/path. It usually implies a speed from 64Kbps to 1.544Mbps. (Contrast with broadband and narrowband.)