

Video conferencing is a set of interactive telecommunication technologies which allow two or more locations to interact via two-way video and audio transmissions. This can be as simple as a conversation between two people in private offices (point-to-point) or involve several sites (multi-point) with more than one person at each site. Besides the audio and visual transmission of meeting activities, videoconferencing can be used to share documents, computer-displayed information, and virtual whiteboards.

It was only in the 1980s that digital telephony transmission networks such as ISDN became possible, assuring a minimum bit rate (between 128 kbps and 2 Mbps) for compressed video and audio transmission. The first dedicated systems started to appear as ISDN networks expanded worldwide. Through the 1990s Video teleconference systems evolved rapidly from highly expensive proprietary equipment, software and network requirements to standards based technology that became readily available to the general public at a reasonable cost.

Finally, in the late 1990s, IP (Internet Protocol) based videoconferencing (IP VC) became possible and more efficient video compression technologies were developed, permitting PC based desktop videoconferencing. Technology such as VoIP can be used in conjunction with desktop videoconferencing to enable low-cost face-to-face business meetings without leaving the desk, especially for businesses with wide-spread offices.

The term **Video Telephony** refer to a solution where an audio/video communication is initiated from and IP phone using normal phone operations such a dialling, conferencing, transfer and on-hold. Video is then normally added using a PC based webcam. Normally video telephony serves single individuals at each location and not groups of attendees. However, that distinction is becoming increasingly blurred with technology improvements such as increased bandwidth and sophisticated software clients that can allow for multiple parties on a call.

Video Conferencing, on the other side, allows two or more locations (board/meeting rooms) to interact via live two-way video and audio transmissions simultaneously. This is generally accomplished by the use of a multipoint control unit (a centralized distribution and call management system aka a video conferencing Bridge) or by a similar non-centralized multipoint capability embedded in each videoconferencing unit. Again, technology improvements have circumvented traditional definitions by allowing multiple party video conferencing via web-based applications. Due to the widespread adoption of industry standards it is becoming common for a mixture of video telephony and conferencing stations to participate in a single meeting.

Telepresence system is a high-end videoconferencing solution usually employed by enterprise-level corporate offices. Telepresence conference rooms use state-of-the art room designs, video cameras, displays, sound-systems and processors, coupled with high-to-very-high capacity bandwidth transmissions to achieve a very realistic and lifelike experience.

There are many advantages to Video Telephony/Conferencing:

- Simplicity, far easier to setup a call/conference
- Time savings on international travel (2 days just to attend a 2 hour meeting)
- Avoiding jet lag
- Cost savings .Travel and hotel costs, loss of productive time whilst in flight.
- In a local context, avoid traffic delays, work from home, increasing work flexibility
- Meetings can be organised at short notice.

- Improves effectiveness, ability to see participants and read body language, compared to audio only conference
- Improved hiring processes. Hiring process can be lengthy and costly, especially when candidates are located in other cities or multiple people are involved in the interview process. Organizations with video conferencing systems can reduce expenses and time by bringing candidates into the nearest facility and allowing interviews to be conducted both in person and over video.
- Retention of top talent through improving cooperation by allowing remote employees to closely interact with other team members and by mitigating travel so they can spend more time with their families.
- Sustained competitive advantage. Teams communicating over video share knowledge more widely, resulting in faster decisions that reduce the time to market for new products and services.
- Reducing the company carbon footprint by allowing organizations to mitigate energy use by dramatically reducing the need to travel.

CISCO

Cisco Unified Communications solutions enable collaboration so that organizations can quickly adapt to market changes while increasing productivity, improving competitive advantage through speed and innovation, and delivering a rich-media experience across any workspace, securely and with optimal quality.

The Cisco Unified Videoconferencing System, an integral component of the Cisco Unified Communications solution, enables face-to-face discussions among remote participants. The solution supports multiple protocols to facilitate connectivity with a wide variety of video-enabled devices from desktop video telephony to standard-definition (SD) and high-definition (HD) room systems and the Cisco TelePresence™ System.

TANDBERG

TANDBERG is a leading global provider of telecommunication systems ranging from desktop video conference, video conferencing systems to high definition Telepresence. TANDBERG designs, develops and markets systems, like Multi Point Control units, and software for Recording, Streaming, Archiving, Management and Scheduling for video, voice and data. The company provides sales, support and value-added services in more than 90 countries worldwide.

Polycom

Polycom products and solutions enables organizations and their geographically dispersed workforces to communicate and collaborate more effectively and productively over distances. Using Polycom Telepresence video and voice solutions and services, people connect and collaborate from their desktops, meeting rooms, class rooms, and mobile settings.