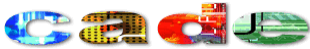


Conferencing and Collaboration Tools

Wednesday, May 21, 2003



Presenter

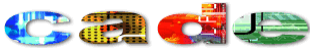
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Conferencing and Collaboration Tools

- Audio teleconferencing
- Videoconferencing
- Web conferencing



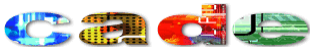
Audio Teleconferencing

Participants gather to communicate over the telephone.

Reservationless or conference-on-demand

Operator-Assisted (introduce, mute, screen)

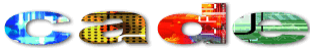
Other services:
Customized management reports
Taping/Rebroadcast
Transcription/Translation



Audio Teleconferencing

Participants gather to communicate over the telephone.

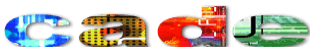
Some guidance for running a teleconference.



Videoconferencing

Definition

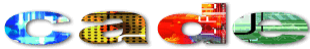
Communication across long distances with video and audio contact that may also include graphics and data exchange. Digital video transmission systems typically consist of camera, codec (coder-decoder), network access equipment, network, and audio system.



Videoconferencing - Standards

H.320, the first videoconferencing standard

H.320 was developed in the early 1990s to allow videoconferencing equipment from multiple vendors to talk to each other. H.320 is an "umbrella standard," meaning it specifies a number of other standards which are to be used in videoconferencing. These other standards include various ways of compressing audio, video and data, ways to determine which compression scheme to use, and ways to divide up an available channel among audio, video and data. It uses ISDN.



Videoconferencing - Standards

H.323

As videoconferencing became cheaper, vendors wanted to put it onto people's desks. The trouble was, people don't generally have ISDN lines coming to their desks - they have phone lines or LAN connections to their computer. Since desktop videoconferencing products use computer power and computer screens, it was natural to try to put videoconferencing on the wire already connected to the computer: the LAN. H.323 was designed to do this. It uses many of the same audio, video, and data compression standards as H.320, but the transfer of the bits is done in packets, and there are mechanisms to try to lessen the effect of changing delay, long delay, and lost packets.



Videoconferencing - Terms

ISDN

Integrated Services Digital Network

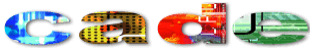
ISDN lines come in channels called B channels, each carrying 64,000 bits per second. H.320 can use up to 30 of these channels. Typical telemedicine systems use six.

IP

Internet Protocol

Point-to-Point - between 2 sites

Multipoint - 3 or more sites



Videoconferencing - Terms

To connect more than 2 sites you need a Bridge.

Videoconferencing bridges are often called MCU's - multipoint conferencing units.

Full duplex audio

2-way audio simultaneously transmitted and received without any interference or "clipping." A common feature of room-based videoconferencing systems.

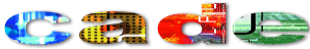


Videoconferencing - Terms

Full-motion video

In the videoconferencing world, the term "full-motion video" is often used and misunderstood. Videoconferencing systems cannot provide 30 fps for all resolutions at all times nor is that rate always needed for a high-quality, satisfying video image. Picture quality must sometimes be sacrificed to achieve interactive visual communication economically. Videoconferencing vendors often use "full-motion video" to refer to any system that isn't still-frame. Most videoconferencing systems today run 10 to 15 fps at 112 Kbps.

Full motion video is equivalent to broadcast television video with a frame rate of 30 fps



Videoconferencing - Terms

- **CODEC**

In the videoconferencing world, a video codec converts analog video signals from a video camera to digital signals for transmission over digital circuits, and then converts the digital signals back to analog signals for display.

- **Compressed video**

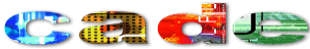
When the vast amount of information in a normal TV transmission is squeezed into a fraction of its former bandwidth by a codec, the resulting compressed video can be transmitted more economically over a smaller carrier. Some information is sacrificed in the process, which may result in diminished picture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



Videoconferencing - Terms

Glossary at:

<http://www.videoconference.com/glossary.htm>



Web Conferencing

Web Conferencing let's you:

- Share content
- Get real-time interaction with participants

Videoconferencing

==== becomes

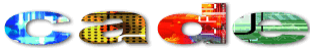
===== web conferencing



Web Conferencing

Interactive live webcast presentations

- MCHCOM.com



Web Conferencing

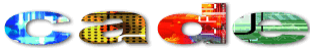
Audio and videoconference meetings with web interface and online archives

- a live meeting that may include:
 - “interactive” presentations with slides, polls, messaging
 - live presentation of handouts
 - audience may be presenters
 - meeting size should be smaller since more participation is required (<25)
- no travel required



Web Conferencing

- Online collaboration
- May require downloading a client (like Microsoft Net Meeting or Java 2 Runtime Environment)
- Multi-point data conferencing
- Features: text chat, whiteboard, and file transfer, as well as point-to-point audio and video.



Web Conferencing

Whiteboard

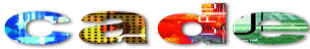
- Review, create, and update graphic information.
- Manipulate contents by clicking, dragging, and dropping information on the whiteboard with the mouse.
- Cut, copy and paste information from any Windows-based application into the Whiteboard.
- Use different-colored pointers to easily differentiate participants' comments.
- Save the Whiteboard contents for future reference.
- Load saved Whiteboard pages, enabling you to prepare information before a conference, then drag and drop it into the Whiteboard during a meeting.



Web Conferencing

Chat

- Type text messages to communicate with other people during a conference.
- "Chat" with one person or a group of people across multiple computers.
- Use "Whisper" mode to send private messages with another person during a group Chat session.
- Save the contents from the Chat session to a file for future reference.



Web Conferencing

File Transfer

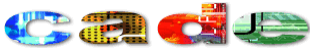
- Send a file in the background to conference participants.
- Send the file to everyone in the conference, or to one or more selected participants.
- Accept or reject transferred files.



Web Conferencing

Program or Application Sharing

- View shared programs in a frame, which makes it easy to distinguish between shared and local applications on your desktop.
- Minimize the shared program frame and do other work if you do not need to work in the current conference program.
- Easily switch between shared programs using the shared program taskbar.
- Choose to allow one person to work in the shared program at a time.
- Approve conference participants' requests to work in the program you introduce.
- Allow or prevent others from working in a program using the Sharing dialog box.



Web Conferencing

Requirements to use the data, audio, and video features you need:

- 4 MB of free hard disk space
- 56,000 bps or faster modem, ISDN, or LAN connection.
- Sound card with microphone and speakers (sound card required for both audio and video support).
- Video capture card or camera that provides a Video for Windows capture driver (required for video support).

