

# Bringing Telepresence and Video Conferencing Closer Together

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# What is Telepresence?

- There is no “official” definition
- Each vendor has their own definition
- Specialized version of video conferencing
- Creates illusion of a face-to-face meeting

# Who Uses Telepresence?

- Primarily large corporations
- Eye contact and body language are important for negotiations
- Can afford large initial and ongoing cost
- Usually externally “managed” system and network
- Unbundled versions available

# General Appearance

- Dedicated room. Wall paint, carpet, lights etc all identical in all rooms.
- Occupies room completely, awkward for other uses.
- Two or more large screens
- Very wide desk
- Furniture cannot be moved
- Cameras and microphones are fixed in position. Everyone looks life size.

# Typical Telepresence System



# What is NOT Telepresence?

- Sound effects
- Hand-held remote control
- Multiple images on a screen
- Text on the screen
- Pan and zoom cameras
- More than 3 remote locations

# The Vendors

- Exclusively Telepresence:  
Teliris and Telanetix
- Managed Systems only:  
Hewlett Packard and Teliris
- Proprietary, Non-interoperable Systems:  
All the above plus Cisco
- Standards-based, Interoperable Systems  
LifeSize, Polycom, Tandberg
- Caveat - Possible futures not included

# Using the Room for Other Purposes

- Only the standards-based systems can be used for normal video conferencing.
- Only a few can be used for non-video conferences.



# The Vendors

- In alphabetical order
- Hewlett-Packard and Teliris are omitted, since they offer only managed systems, and we decided we do not want a managed system.
- Future enhancements not included
- Prices are ballpark
- This is an overview

# Cisco

- Creates best face-to-face illusion
- Highest video resolution (1080p)
- Most strict about room design
- Two sizes:
  - 6 people, 3 screens, \$300K
  - 2 people, 1 screen, \$75K
- Also requires special MCU, \$100K
- Weakness - viewing data and materials

# Cisco Telepresence System



# Cisco Screen View



# LifeSize

- Does not offer their own Telepresence system.
- Relies on 3rd party integrators to design and install custom rooms, using LifeSize video conferencing equipment.

# Polycom

- Unique approach - provides entire room as a room-within-a-room.
- No remodeling
- A pre-fabricated shell is assembled within your room, like a piece of furniture.
- Better than remodeling would be.
- Can be disassembled and moved to another location later.

# Polycom (cont)

- 8 standard sizes available, 4-36 people
  - 4 persons, 2 displays \$280K
  - 14 people, 2 displays, 2 rows, \$316K
  - 36 people, 4 displays, 4 rows, \$651K
- Unique fold-up screens in desk for data display
- Unique power and network connections for PCs in desk

# Polycom (cont)

- Requires external HD MCU.
- This makes it possible to have any number of locations present.
- Standard Polycom MCU provides partial HD support.
- Polycom and Codian have HD MCUs available.

# Polycom (cont)

- Unique rear projection provides:
  - Curved screen
  - Continuous screen; no gaps
  - Invisible cameras in screen
  - Excellent eye contact
- All other vendors use multiple plasma panels

# Polycom two screen room



# Polycom Four Screen Room



# Polycom room details



# Polycom as a conference room



# Tandberg

- Offers only one size, 3 screens across and a data screen below.
- 4-6 people. \$199K, not including chairs.
- Creates unique illusion of a continuous curved table for other locations.
- Excellent document camera in ceiling, \$15K extra

# Tandberg (cont)

- Built-in MCU
- Wireless touchpad control
- Includes separate PC-based executive desktop telepresence station.

# Tandberg Telepresence System



# Tandberg Telepresence System



# Telanetix

- Two standard sizes available, others possible:
  - 4 screens, 4 people, \$129K
  - 2 screens, 2 people, \$44K
- Any image can be on any screen
- Desk usable for non-video conferences
- Built-in MCU

# Telnetix (cont)

- Not high definition, but looks good.
- No encryption

# Telnetix Telepresence System



# Telnetix Telepresence System



# Why don't more people use Video Conferencing?

- Its too hard
- Its too complicated
- I don't have time to learn all this
- I just want it to work
- Don't give me technical jargon

# How can we use Telepresence ideas to improve standard video conferencing?

- Simplify the screen appearance
- Eliminate most of the choices
- Eliminate all “dialing”
- Eliminate all sound effects
- Eliminate most screen text

# How to Make the Screen Intuitive

- Create an endpoint “personality” for a specific user group
- Program the endpoint accordingly

# Example of a “Personality”

- Typical video conferencing screen
- As Modified for a VIP

# Polycom Programming for a simple screen

- main screen
- directory
- create all the special locations and addresses you will need in all lists below
  
- system
- admin settings (log in)
- general settings
- home screen settings
- sites on
- system name off
- contact list
- choose from the directory, just those you want to be in the displayed list  
(This list is saved, but NOT as part of the profile, unfortunately)
  
- back out to main screen. The special screen will now be displayed.

# How to Simplify Multipoint Conferences

- In the MCU, create a conference which is “always available”
- Make this available to users with a single click
- Pair the conference with a matching Personality
- These conferences do not use significant resources when not in use

# Why are these methods not already used?

- Manufacturers do not emphasize these simplifications are possible
- Manufacturers do not make it easy
- Manufacturers want to provide as many options as possible
- Administrators are not aware it is possible
- Administrators don't want to make the effort

# Questions?

These slides are available on the  
conference web site.