

# Video collaboration

- user driven developments

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JISC e-Research Roadshow

Telford Campus

17<sup>th</sup> November 2009

**MidSim**  
Wednesday, 18  
November 2009

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# Overview

- Review - availability
- User driven - what this is about
- Research Uses - different ways of using
- Video communication – types of
- Video Technologies - and JANET
- Shared Desktops and Views
- Making it work
- Opensource & open standards
- The Future?

# Review

- Much is already available (and supported)
  - Depends upon purpose of collaboration
  - Depends upon purpose of video channels
  - Single or multiple observation
  - Shared view of meeting

# User driven

- Driven by NEEDS of user
  - We needed to share what we could see
  - We needed to see what others could see
  - We needed multiple views/specialist views
  - We needed to share computers
  - We needed to do it wherever
  - We need to do it with whoever

# Research Uses - different ways of using

- Used for research collaboration with multiple partners
- Management
- Technical/problem solving
- Research concepts and proposal creation
- On-site/remote lab for extended observation
- Interviewing?

# Video communication - one-to-one

- Traditional videoconferencing
  - ISDN & IP (H323)
  - PC H323 clients such as netmeeting and Ekiga
- Video (SIP) phones
- PC SIP clients such as Ekiga
- Skype (Proprietary)
- Messenger (Proprietary)

# Video communication - one-to-many

- Broadcast technology
- Useful for dissemination of lecture
- Lack of feedback a problem for collaboration
- Web-based technologies such as DimDim

# Video communication - many-to-many

In which multiple sites, each with multiple video streams exchange them

- Traditional videoconferencing
  - Using MCUs (Multipoint Control Unit)
- Access Grid ( IOCOM) using “virtual rooms”
  - Exchange video with separate displays
  - Allows for large number of participants & video streams

# Video Technologies- and JANET



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# Video Technologies - and JANET

- Joint Academic NETwork
  - JANET Video Technology Advisory Service (VTAS)
  - Access Grid Support Centre
  - JANET Videoconferencing Service (JVCS)
- Bridges and gateways
- Broadcasting of meetings and recording

# Shared Desktops and Views

## - presentation and sharing

- Simplex
  - No control only display – for presentations
- Duplex
  - **NX** – very high efficiency remote desktop
    - No server for MS systems (but clients)
  - Remote Desktop (RDP)
  - **VNC** – cross operating system
  - PTZ protocols for remote control of devices (video)

# Making it work

- Easily and securely (through firewalls?)
  - Agreed protocol and registration (viz gatekeeper)
  - Tunnels (some products have built-in)
- Installation Difficulties
  - Use existing products (on O/S)
  - Use java based applets

# Opensource & open standards

- Importance and relevance
- Enable cross-technology communication
  - Increases network size and factorial connectivity
  - URL or URIs exist (but not used :-{)
  - h323:// sip:// ssh://
- Improves software availability

# New Technology Availability

- Multiple displays on computers
  - Wider visual environment
- Stereocameras
- Thermal cameras
- Echo cancellation devices
- Netbooks
  - For mobile and portable large meetings

# The Future? what is coming up and who will(?) drive it

- New Business models for software systems
  - Reflecting different usage need & requirement
- Better Firewall traversal
- Applet based systems
- YOU

# Addenda