Videoconferencing in the UK

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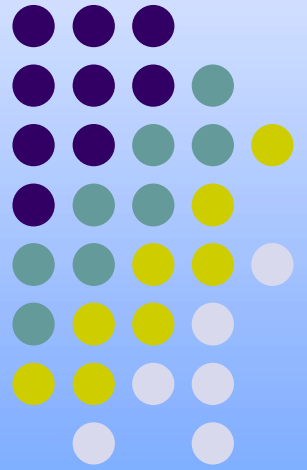

Overview

- Videoconferencing is now much more “mature”
- Systems used by UK HEP groups
  - Studio based
  - “Desktop” based
- Facilities used
  - MCUs etc.
- Feedback from users

Tools and Technologies

- All technologies are in use
  - ISDN H.320
  - VIC/RAT (VRVS)
  - H.323 (VC over IP)
  - Streaming video (RealPlayer)
- Trend is clear however
  - Reduction of ISDN in favour of IP based solutions when possible
    - Large sites still use ISDN, but costs for small institutes are too high
    - IP solutions are now much more reliable

Tools and Technologies

- Streaming video mainly used to webcast plenary sessions of e.g. experiment collaboration meetings
  - No remote audience interaction with speakers/participants
  - Allows for online storage and replay of presentations
    - Useful for reference after the event

Studio Based Systems

- Most universities/sites have central, studio based facilities
  - Not dedicated to HEP
  - May be very busy
  - Not always convenient
  - University may charge for use
- All support ISDN
- An ad hoc survey of HEP sites seems to suggest that use of these facilities is falling in favour of group/desktop systems

Desktop Systems

- Hardware Codecs
  - Many groups have Zydacrons
    - 350/360 H.323
    - Only one group has an ISDN board
  - Also lots of ViaVideos
    - Software issues here:
    - v3.0 seems to break interoperability with many other systems
    - v2.2 seems OK
- Microphones/Speakers
  - Range from headsets to Polyspans

MCUs

- Much use of ESnet services
  - CDF regular users
  - HERA experiments
  - No problem reports about service
- More recently, JVCS service launched in UK
  - New H.323/IP service
  - ISDN and IP/ISDN gateway

    http://www.jvcs.video.ja.net
  - Kit must pass their QA tests before you can use the service
    - Really aimed at studio systems
    - Desktop hardware codecs at low end of acceptable
    - No software codecs allowed
    - System does include rate-matching though

UK Campus facilities

- Some sites have their own MCU
  - Glasgow
    - Heavily used for teaching
    - H.323/ISDN gateway
  - UCL
    - H.323 MCU
    - Used by Grid project (with booking in advance)

Experience

- ESnet
  - CDF have used DCS successfully via H.323 gateway for a long time
    - Also using H.323 ad hoc facility
- JVCS
  - Early days yet
    - No large-scale experience but early adopters responses have been positive despite QA requirements

Experience

- VRVS
  - Used at CERN
  - DESY also beginning to use it for meetings
  - H.323 mode has compatibility problems with Zydacron and ViaVideo v3.0
- User responses
  - Mixed
    - Some groups find it OK
    - Others have given up using it altogether
  - Seems that once a system has been set up and made to work then everything is OK
    - Problems occur when trying to set up machines from scratch each time
    - Comments made that it's very hard to diagnose where a problem is – local or somewhere down the line

Experience

- One or two comments from heavy users about purely phone conferences
  - PC to display slides
  - Conference phone+call
    - although cost issues for conference calls
    - BarBar meetings often held this way

Access Grid

- Not much to report
  - AG nodes starting to appear
  - Some people have tried it
  - No feedback yet

Issues

- Firewalling
  - Not yet a nationwide problem
  - Will become increasingly so as universities move to default deny firewall policies
  - No UK wide solution as yet
    - Individual sites working with their infrastructure people
    - Firewall policy may be outside direct control of HEP groups
    - This is a worry going forward

Issues

- Data Sharing
  - Most (if not all) VC solutions offer data sharing
    - Desktop/Window sharing for example
  - Not widely used
    - Standards? Interop
    - Some use Netmeeting, others have browser-based Java applets
  - No recommendations as yet

Summary

- VC is working for HEP in the UK
  - Some glitches, annoyances
  - Current recommendation to groups is ViaVideo
    - Zydacron no longer recommended
    - Warning about v2.0/v3.0 ViaVideo compatibilty
- H.323 IP based conferencing is becoming dominant
  - Ad hoc H.323 would be nice, but how simple to implement?
- Concerns about firewalling going forward