

BROADBANDING CF: PATIENT, CARER, CLINICAL AND RESEARCH OPPORTUNITIES TO IMPROVE CF LIFE AND CARE USING INTERNET ENABLED DEVICES

David Parsons^{1,2}, Martin Donnelley¹, Guido Aben³

¹Respiratory and Sleep Medicine, Women's and Children's Hospital, Adelaide, South Australia.

²Women's and Children's Health Research Institute, Adelaide, South Australia.

³AARNet Pty Ltd, Kensington, Western Australia.



Introduction

Internet-based communications have already revolutionised research communication and collaborations across the world.

The wide deployment of optic fibre along academic networks (AARNet) together with the \$43 billion fibre-to-the-home Australian broadband network proposal ("RuddNet"), & improved 3G mobile technology provide a unique opportunity for online collaborative environments to support CF clinical care, research, patient, and carer video-collaborations.

Networks: current & emerging

AARNet

- Extensive optic fibre network
- Local and international internet / networks
- Bandwidth, reliability, speed.



The AARNet Network 2008

National Broadband Network "RuddNet"

- Optic fibre direct to homes
- Transparent matching to AARNet
- Academic, clinical, patient, carer linkages?



FTTH: (Optical) Fibre To The Home

Video collaborations now available for development

Collaborative environment

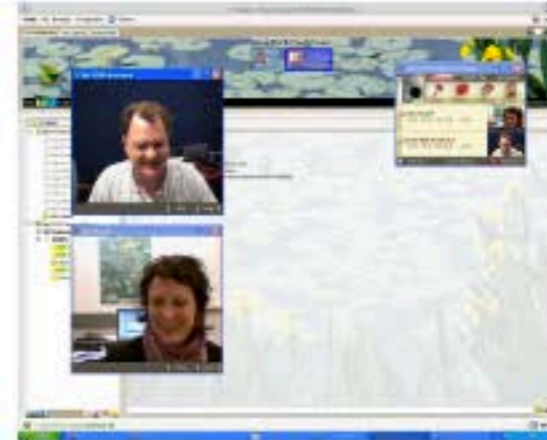
- Persistent storage
- Multiple real-time video streams
- Whiteboards / drawing screens
- Remote sensing
- Remote desktop viewing
- Jitter-free remote control
- Secure

Standard Equipment

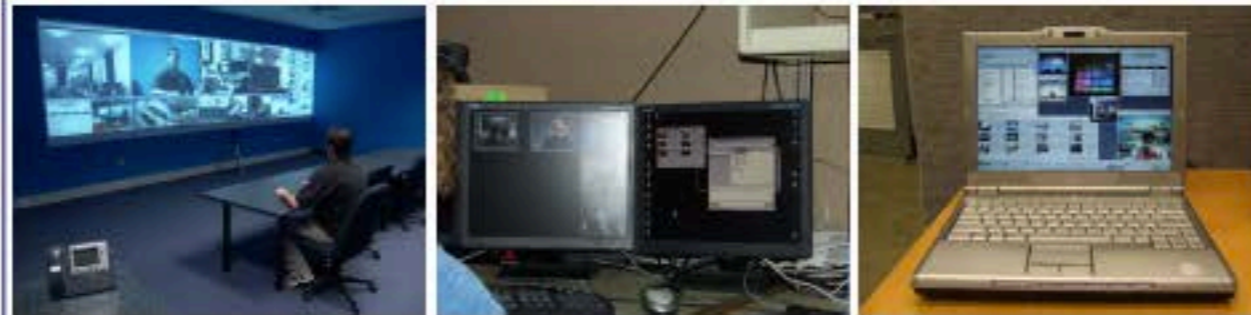
- Laptop, desktop, video-walls
- Specific conference rooms

Free Software

- AccessGrid, EVO (both like Skype, but improved options, flexibility), etc



EVO running on a desktop PC



AccessGrid between conference rooms, desktop computers, basic laptops, smartphones, etc



AccessGrid and EVO allow multiple simultaneous video and audio streams from multiple locations

What uses?

- Multi-centre video conferencing
- Conferences: National, International
- Remote CF physician consults
- Limiting CF cross-infection
- Multi-centre studies, meetings
- CF parent groups
- Nursing interactions, HITH
- Multi-centre clinical trial monitoring
- Joint QC meetings
- Real-time physiological monitoring
- Participation in International trials
- Seminars, webinars
- Social sessions
- What's yours? ...

More information

Software

www.accessgrid.org/
evo.caltech.edu



<http://www.aarnet.edu.au>



<http://www.arcs.org.au/>



An Australian Government Initiative
National Collaborative Research
Infrastructure Strategy