Reducing the ‘tyranny of distance’
Enhancing patient outcomes through innovative use of new technology options in rural and remote locations
Kalumburu Clinic
Challenges for Kalumburu

• No fixed data services available (DSL, fibre etc)
• No mobile phone services available
• Land line services regularly failing and extended repair times
• Remote Location – difficult and costly to access and service – difficult to get freight in
• Clinic with 8 – 9 computers and requirements for reliable access to patient data and standard IT applications
• Applications and systems not designed for high latency slower networks
Meeting the challenges
Technology solutions in use

- Satellite data (NBN and Corporate)
- Point of care testing and data transmission
- Voice over IP telephony (via satellite)
- Satellite phone systems
- Local radio networks
- Video Conferencing solutions
- Improved remote support capabilities
- RAN house connectivity options
Satellite Data

• Corporate data provided by Telstra / Iterra Satellite – fully routed network (enabling many future functions and ‘standard’ connectivity)

• General internet access provided by NBN network
Point of care testing

- iStat device on the network
- Future medical devices
Voice over IP Telephony

A convergence of Data and Telephony

• Telstra TIPT Trial (over Satellite)
• VoIP phone systems in RAN houses (NBN Satellite connectivity)
• Wi-Fi calling (from mobiles)
• Internal IP Phones
Satellite phone systems

- Indoor RST100 solutions
- Portable satellite phones and in-vehicle use
Local radio networks

- Local UHF radio network including clinic, houses and vehicles
- Police and Mission also on UHF network
Video Conferencing Solutions

- Software based solutions (Scopia)
- Hardware based solutions (Polycom)
- Future potential Telehealth appointments
Improved Remote Support capabilities

- Ability to remotely connect and manage equipment on site
- Standard connectivity for DoH / WACHS systems
- Ability to remotely monitor connections and equipment and receive systems alerts
RAN House connectivity

- NBN Satellite connectivity
- VoIP backup phone systems
- UHF Radios
Future challenges and projects

– Cost reduction to provide services
– Increases in bandwidth requirements
– Mobile telephone communications
– CCTV and security enhancements
– Duress options (local and mobile) – Telstra remote satellite duress trial