Reducing the 'tyranny of distance'

Enhancing patient outcomes through innovative use of new technology options in rural and remote locations

Kalumburu Clinic
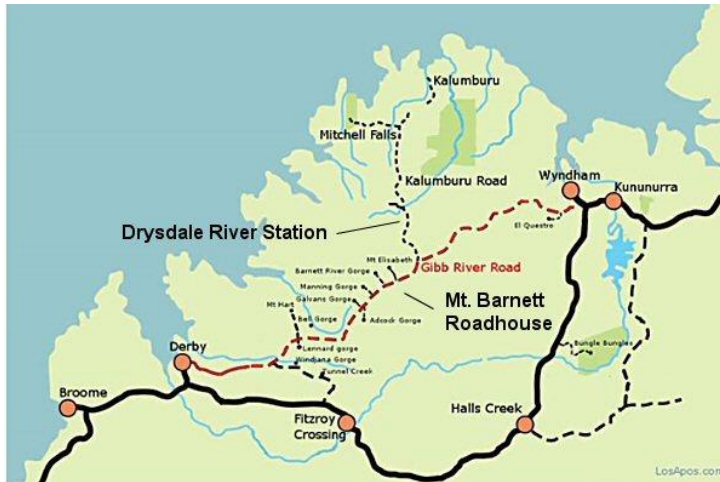
Challenges for Kalumburu

- 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
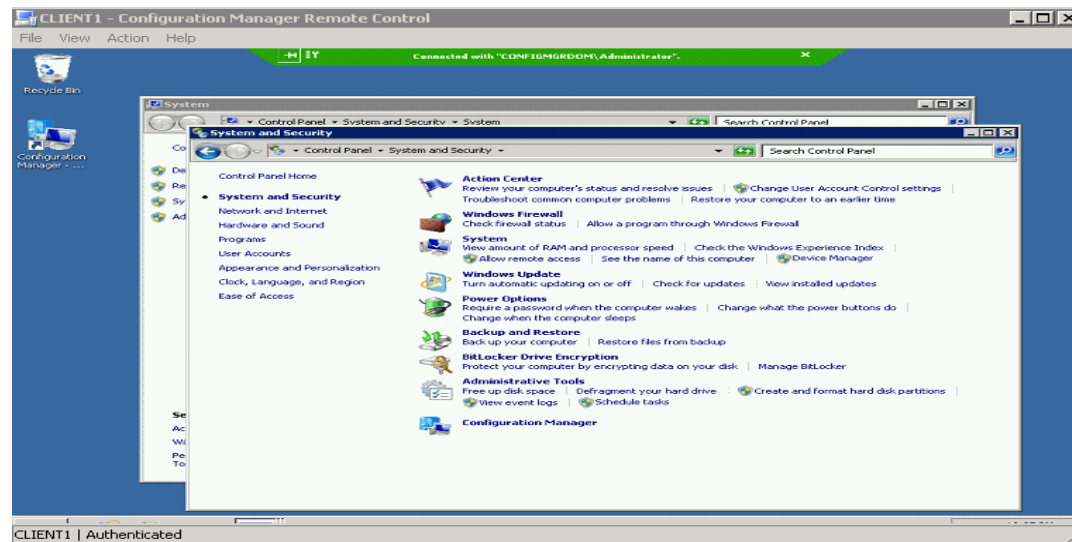
RAN House connectivity

- 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