Data Centre Community of Practice

Don Caruana, Laurence Rietberg, Roy Pigeon
Data Centre Working Group

- During 2014 Data Centre Working Group established by QUDIT
- Maintain a vibrant community-of-practice for professional development purposes
- Progress collaborative initiatives to benefit QUDIT members.
- Meet bi-annually with rotating venues
- Representatives from JCU, CQU, SCU, GU, QUT and UQ

- This THETA session - a focal point for the working group to engage wider with stakeholders outside Queensland
- Awareness growing – ANU representative to join next meeting at UQ in July
Current Initiatives

Consideration of residual current devices (RCDs) in data centres, balancing and managing the safety risks with the conflicting service risks resulting from nuisance RCD trips: an expert consultancy for the sector (UQ) and latest technology options (Griffith)

An initiative to periodically canvass the data centre co-lo market with particular reference to higher education/research sector issues

Data centre monitoring and efficiency initiatives
RCDs in Data Centres

- High availability is still possible...
- Apply a risk management approach to any RCD roll-out
- Install as near to load as possible; i.e., in racks
- Use ‘super immunised’ RCDs, such as Schneider ‘si’ or GE ‘ai’ RCDs – 2 pole accessories – interrupt A + N
- Leakage current (LC) is cumulative – based on power supply type, age, and quantity, not load
- Continuously monitor LC where possible
- Measure and compare data between tests
- Proactively replace an RCD @ <= 20mA ramp test

(Acknowledgements: David Morley, CITEC)
About CQUniversity

- 23 Sites across Australia
- Dual Sector University
- 32,000 Students
Before the storm

• Category 1 to 2 Cyclone Prediction
• 24 Hours before event
  – Activate Emergency Management Team
• Actual cross predicted for Friday 20\textsuperscript{th} Feb
The Storm
Everyone’s OK – but...

No power
Almost no communications
No Fuel
Everything is a mess
Its HOT!
That’s it folks

Thanks for your attention