

**PMPC 2015**

# **TRANSITIONING TOWARDS DEPLOYMENT**

**MARK ROGERS**



# OUR REGION

- NZ
- Australia
- Fiji
- Tahiti
- Samoa
- Vanuatu
- Palau
- Yap
- Nauru
- Rarotonga
- New Caledonia
- Solomon Islands
- Papua New Guinea
- Singapore
- Malaysia
- Indonesia
- Thailand
- Macau
- Bangladesh
- United Kingdom



# FULL TURN KEY

## System Design, Integration & On-going Support

- End-to-end design from business case to equipment selection, implementation and commissioning
- In-house design capabilities from civil/structural to radio frequency engineering to electrical and ventilation systems
- Total deployment capability including Project management, civil works, rigging and technical installation
- Customer training
- On-going support



...across a range of technologies



# PROJECT MANAGEMENT



- Project Management Office
- Proven project delivery
- Specialists in infrastructure projects
- PMP framework



# OPTICAL FIBRE

- Experienced fibre network designers (CBD, Urban and Rural)
- Route planning
- Trenching, thrusting
- Fibre Installation
- Skilled fibre optic splicer's and testers
- Installation of terminal equipment
- Fibre install and test equipment



# STRUCTURAL ENGINEERING

- Infrastructure Inspections
- Structural design including foundation systems
- Antenna mount design and fabrication
- Building and floor loading analysis
- Draughting services 2D/3D, montages





# ENGINEERING FOR ALL SEASONS



# WHEN THINGS GO WRONG!





# CIVIL WORKS

- Construction management
- Earthworks including trenching, site preparation and access tracks
- Traffic management
- Broadcast/ telecommunications facility construction
- Tower/pole fabrication and construction



# ELECTRICAL AND VENTILATION

- Heating and ventilation
- AC – Mains power distribution, switchboard design
- DC – Distribution, batteries and rectifiers
- Backup power systems – UPS, batteries and generator systems
- Earthing and lightning protection
- Solar systems – design, equipment selection and deployment
- Wind energy solutions



# SCADA – SUPERVISORY CONTROL AND DATA ACQUISITION

- Remote control
- Power and utilities
- Power and building services
- Equipment status
- Alarm reporting



# WIRELESS

- Spectrum planning
- Work with Government agencies , to plan and register frequencies
- Consultancy, testing and installation
- Microwave radio
- WiMAX networks
- Industrial Wi-Fi solutions
- Digital and analogue TV / radio
- Satellite
- Intermodulation / interference analysis



# MICROWAVE RADIO



- Site selection and line-of-sight surveys
- Microwave link design
- Capacity planning
- Equipment evaluation and selection
- Frequency planning, RF licence application and issuing
- Long haul, short haul
- Installation from 300 mm to 4 m dishes



# ELECTROMAGNETIC RADIATION

- EMR predictions for antenna systems
- EMR reports for site/ resource consent applications to local councils
- Experienced EMR surveyors have undertaken hundreds of surveys in NZ and Australia, and developed work methods for sites
- EMR training courses for installers and surveyors used by numerous organisations in NZ and Australia
- Kordia participates in development of the NZ and Australia EMR standards





# RIGGING

- Qualified and highly specialized riggers
- Inspections
- Construction rigging
- Lifting using cranes and helicopters
- Communications systems rigging



# ANALOGUE SWITCH OFF (ASO)

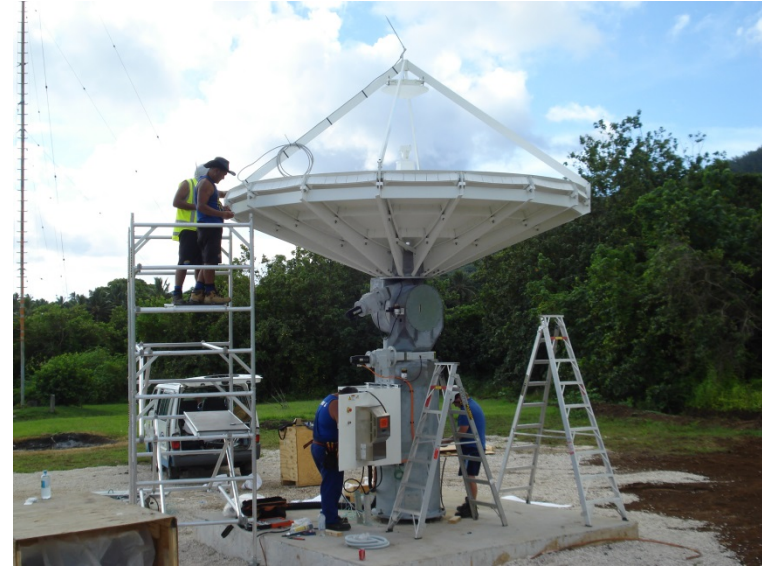


- Infrastructure Management
- Aperture planning
- Maintenance liabilities
- Health and Safety responsibilities
- Tower Security – Engineering



# TECHNICAL

- Highly qualified and experienced technicians partnering to provide training and support :
  - VHF/UHF/HF System design, installation and support
  - Satellite
  - IP systems
  - Microwave radio
  - Wi-Fi
  - WiMax
  - Broadcasting transmission equipment



# PREVENTATIVE MAINTENANCE & FAULT RESPONSE

- Full facilities management and maintenance of equipment
- Integrated Remedy based tools used for:
  - Scheduling preventative maintenance
  - Spares and asset management
  - Incident and problem management
  - Reporting
- 24x7 Help desk and national and international fault response



# PROVIDING INTERNET TO TABUBIL (PNG)

- Students at Divine Word University in Tabubil, a remote village in PNG, were being held back due to lack of internet connectivity
- Students were provided with laptops through a Government program, but no means of accessing the internet
- Infrastructure in the village was limited and power unreliable
- Kordia designed, built and installed a self contained WiMax terminal that included
  - Solar power
  - Diesel generator backup
  - Satellite terminal to carry the data traffic
  - WiMax base station that provides internet connectivity to subscriber units installed in campus buildings
- Provided training to local IT company “Alphanets” to operate



# THANK YOU

