

THIESS

ADUG

Communications Future
Forum



How do we get there from here?

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Where are we now?

- Limited Bandwidth.
- Disparate Systems and point solutions.
- Multiple Communication Channels.
- Exposure to Security.
- Limited reach to projects and operations.



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Where do we need to be?

- More Bandwidth.
- Systems Convergence.
- Improved Communications.
- Increased Security and Safety.
- Ubiquitous reach to operations.

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Where do we need to be?

- **More Bandwidth**

- High demand for new applications & systems as a result of mining boom.
- Increasing use of existing applications.
- Bandwidth increases of over 200% within 12 – 18 months.
- Increased focus on efficient operations – drives more applications and systems which in turn drives demand for bandwidth.

Where do we need to be?

- **Systems Convergence**

- Focus towards IP-centric systems and applications.
- One architecture allows scalability and new technologies to emerge.
- E.g.: VoIP
- Wireless Mesh
- RFID
- Video over IP (enhanced security & remote monitoring)
- Location-based services
- Asset tracking
- VoIP-to-RF integration etc...

Where do we need to be?

- **Improved Communications**

- IP-based telephony – extends reach of voice networks.
- Presence Awareness applications improve lines of communication and visibility of employees and availability.
- IP based integration to existing RF radio systems – provides windows of opportunity to communications across geographic boundaries never thought possible.
- e.g.; RF to VoIP from site A (QLD) → VoIP to RF to site B (WA)

Where do we need to be?

- **Increased Security & Safety**

- Improved security & monitoring through new systems (ID tracking / screening, location based security access.
- Improved monitoring of remote SCADA plant and systems through IP based systems, video and RFID solutions.
- Person-down emergency response systems through use of RFID and GPS based IP systems – all need bandwidth to operate and monitor.
- Facial recognition / access systems to permit approved contractors on remote sites.

Where do we need to be?

- **Ubiquitous reach to operations**

- Deployment of emerging Wireless mesh technologies and solutions to establish private networks across large operations (30km to mine pits)
- Reduces dependency on carrier infrastructure.
- Capable of providing quality, reliable voice / data / video over long distances.
- Extends reach of systems and applications to remote field operators.
- Opens windows of opportunity for new systems and improved efficiencies across all lines of business.