



Is Paging really dead?

Presented By
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What is the number one question?

WHY



Why Paging

- Can be built for mission critical 4 or 5 9's
- Does what it is designed to do
- Less prone to viruses and hacking
- One to many
- Lower cost hardware
- Greater Coverage footprint
- Long Battery Life



Where Did Paging Go?

- 1980 3 million pagers
- 1985 affordable cellphones arrived
- 1990 22 million pagers
- 1995 60 million pagers
- 2000's many consumers went to cellphones-iPhone, Blackberry
- But, Paging did not completely go away
- Pagers in use today? Where?



Who Uses Paging Today?

- Doctors
- Nurses
- First responders
- Firefighters
- Police
- Nuclear research

- Mining
- Energy producer's emergency response teams
- Energy distribution systems
- Industrial alarm monitoring systems
- Manufacturing process control
- Factory areas where cellphones are not allowed.

...and Anyone Who is Important!



North America- Examples

American Messaging:

- > 3,000+ Transmitters
- > 700,000 Subscribers
- > 1,400 Major Healthcare and First responders
- Continued investment upgrading network

Spok:

- ➤ 4,000+ Transmitters Coverage in 42 States
- > 2,200 Hospitals
- ➤ 800,000+ Pagers in use
- ➤ 100M+ Messages per month sent



EU- Examples

eMessage France:

- > 400 + Transmitters -98% of Population
- ➤ 130,000 Subscribers
- Messaging to Pagers as well as switching and control

eMessage Germany:

- > 800+ Transmitters Coverage in 95% of Germany
- Healthcare, Fire and disaster, Utilities
- Messaging to Pagers as well as switching and control



EU- Examples

Astrid Belgium:

- > 240+ Transmitters Nationwide
- > 7,200+ Messages sent per day
- Dedicated network for First Responders
- Network upgrade over the next 18 month

Netherlands:

- ➤ 424 Transmitters Nationwide
- Dedicated network for First Responders
- Government built and managed



NZ- Examples

Spark:

- > 95 Transmitters Nationwide
- Exclusively for FENZ, Wellington Free Ambulance and ST John Ambulance
- > Flex and POCSAG Protocols
- > Approx 10,000 users

St John Ambulance:

- > 100 Transmitters Infill where no Spark coverage
- POCSAG Protocol
- Approx 8,000 users



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NZ- Examples

• FENZ:

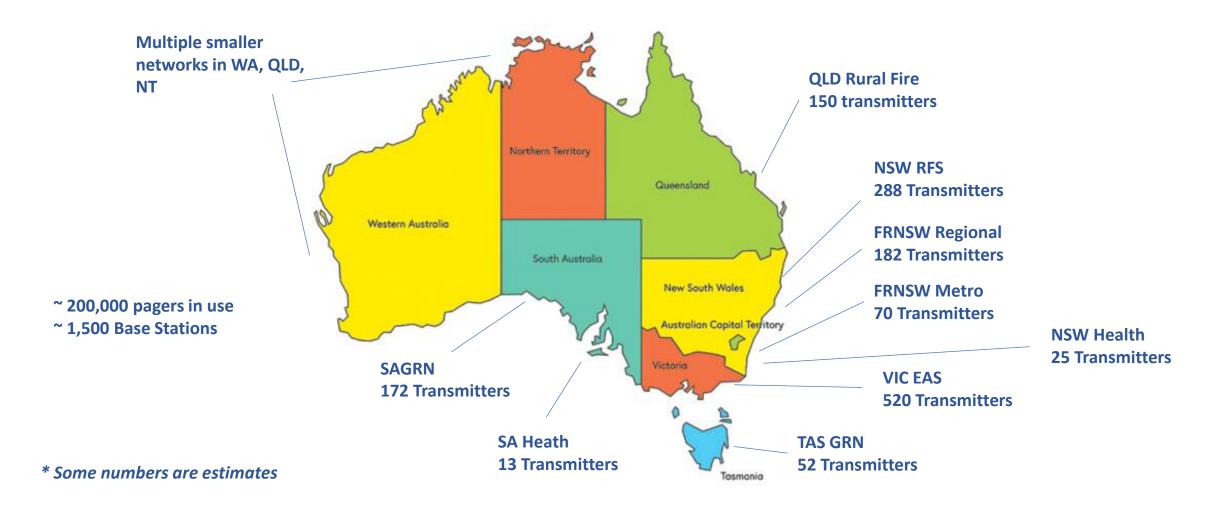
- > 100+ Infill Transmitters where no other coverage
- Exclusively for FENZ and ST John Ambulance
- Mostly Satellite backhaul

Canterbury DHB:

- Reliable Paging Linked across 5-6 sites
- POCSAG Protocol
- Code Blue, Security Response

Paging Networks in Australia







Australia- Examples

Victoria AES:

- > 228 sites with 2 transmitters per site- 2 Frequencies
- Exclusively for CFA, MFS, SES and Ambulance Victoria
- > 40,000+ Pagers
- Network Refresh next 12 months

South Australian GRN:

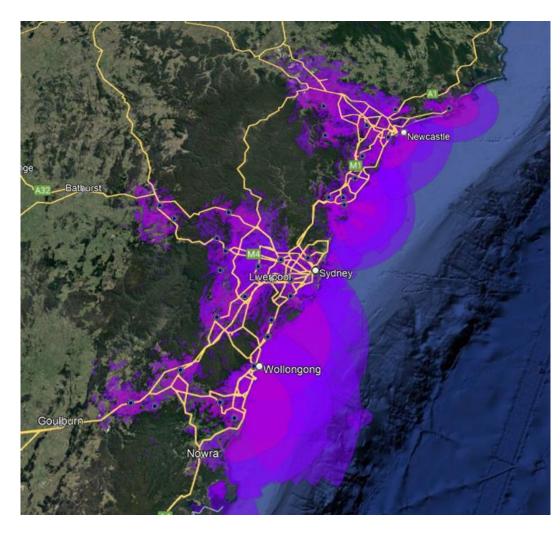
- > 172 Transmitter Sites
- Exclusively for CFS, MFS, SES and SAAS
- > 20,000 + Pagers
- Upgraded in 2019 New network and core



Australia- Network Focus-

NSW ESPN:

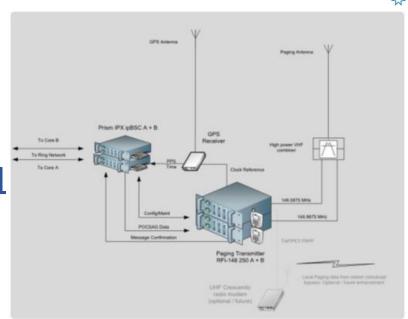
- Currently 35 sites with 2 transmitters per site- 2 Frequencies
- ➤ 10 new sites being installed in 2023
- ➤ 1 Channel for F+R NSW
- ➤ 1 Channel for RFS, SES
- Covers the Sydney GMA

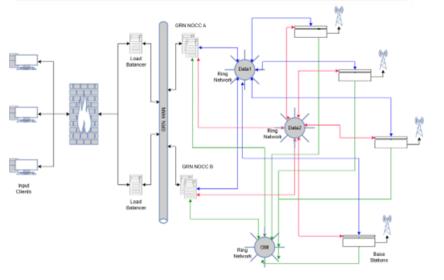




NSW ESPN:

- > STI Engineering, Prism-IPX & TPL
- Future-proof, modern equipment
- Redundant paging cores
- Dual channels
- > TPL Encryption enabled
- Standard POCSAG as well as 4G pagers







Australia- Network Focus-

NSW ESPN:

- Completed on January 6th 2022
- Challenges
- > Time
- Contract started in April 2021, 80% of sites installed in December...
- Bureaucracy
- Discussions started November 2018
- Competing interests and moving targets
- > COVID...



Upcoming Opportunities/ Projects-

NSW MISSION CRITICAL MESSAGING PROGRAM:

- Highly Available messaging service when alternative communication technology fails
- Single POCSAG Paging Network for NSW
- ➤ Increased current paging coverage by 12%
- > 415 Sites
- > 45,000 + Users
- Connected to PSN backhaul



Upcoming Opportunities/ Projects-

- NZ Public Safety Network- Personal Alerting:
 - Combine multiple networks (Spark, St John, FENZ) to one network with same frequency and protocol
 - Part of Public Safety Network rollout
 - Replicate current paging coverage or improve more desirable
 - ➤ 200+ Sites
 - > 18,000 Users
 - Potential for hybrid devices with response capability



Upcoming Opportunities/ Projects-

Tasmania GRN Paging:

- Single POCSAG Paging Network for TAS
- Part of \$567M TasGRN P25 Radio project
- > 54 Sites currently
- Approx 7,500 Users
- Radio Network build priority



Summary

- Although Numbers have reduced Paging still remains
- Networks still being built and maintained
- Most networks are mission critical and Government Funded
- Message protocol has not changed but systems are latest technology
- Devices have changed-hybrid options for response and dual path messaging
- Encrypted and secure options available





THANK YOU, ANY QUESTIONS? Please contact:

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