

Two-way radio systems are a vital part of Council maintenance and support for service delivery and support staff. Council radio resources can also be a vital part of large scale public safety incidents, and need to integrate with Police, Fire and Ambulance radio systems at times of emergency.

Virtually all local government organisations operate two-way radio systems for communication with and between council staff in maintenance, construction and operations activities that require dedicated group communications capabilities. These radio systems are often highly reliable, but can fall into disuse and even disrepair as they age. The new age of digital two-way radio is here with manufacturers scaling back their support for analogue systems, driven by regulatory constraints on radio spectrum conservation and new functionality such as data transmission, GPS location and encryption.

The Business Challenge

Toowoomba Regional Council (TRC) resulted from the amalgamation of eight smaller councils and in the process inherited eight (8) unconnected radio systems in varying states of reliability and coverage.

Details of the radio sites assets including equipment types, performance and general health was unknown.

Many Council staff used mobile phones to communicate with colleagues and managers as the two-way radio systems were difficult to use.

The Gravelroad Solution

Council wanted to know the condition of their eight networks and where points of failure were.

First steps were an audit of infrastructure and assessment of investment options to remediate operational risks and to identify opportunities to make the network more effective for Council. It was important to minimise cost and to ensure systems worked as intended with some integration to support operational activities.

The audit used standard Gravelroad templates and photographic records of equipment, buildings and masts, and identified areas of immediate work – battery and antenna replacement, Equipment retuning and spectrum changes.

A budget was developed for immediate and short-term work, radio resources procured and managed to comply with Council requirements, and the overseeing of remediation work.

The longer-term options were considered next – should Council plan to replace the existing analogue systems with the new digital technology? Should they manage the radio systems themselves, outsource management, or consider a completely outsourced service?

Radio spectrum changes were necessary in several sites, and a local airport suffered poor radio coverage due to radio interference from a nearby industrial source of radio noise.

The Outcome

Gravelroad was engaged to provide ongoing radio design and management services by Council until all remediation work was completed, and Council was able to make a decision on the future insourcing or outsourcing of radio services.

We have continued to support TRC through the remediation project, development of a detail Requirement's Specification and support through the procurement process including evaluation and negotiation with the successful respondent. A final solution is close to being implemented by TRC.

Related Work

Gravelroad has helped other Councils and public utilities to assess and upgrade their radio systems in Australia and Papua New Guinea. Our independence and industry knowledge provides a unique specialist radio resource for our clients.

Gravelroad is an independent professional change management consulting firm with a difference. What sets us apart is our customer centric culture, which drives our collaborative approach. The combination of our teams' deep and practical industry experience, our ability to work in close partnership with our Clients, and our independence from any one solution, enables us to provide Clients with advice that is aligned to their strategic direction.

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SERVICES

Coverage Mapping
Analysis and Evaluation
Cost Estimation
Infrastructure Planning and Design
Requirements Specification