Case Study

Ergon Energy is the electrical distributor in the Australian state of Queensland, the second largest state in the country and covering a landmass approximately 2.5x the size of Texas, or nearly 7x the size of Great Britain. The firm employs approximately 4,700 staff and has assets under management in excess of $10Bn

Ergon Energy

Queensland, Australia

In all geographic areas of operation, Ergon Energy needed secure and reliable communications not only for coordinating day-to-day operations, but also to manage unplanned or emergency situations. The use of commercial networks to fulfil these requirements was not a viable option due to low geographic levels of cellular network coverage, as well as issues with congestion, resilience, reliability, and redundancy. For these reasons, a dedicated communications network under the control and management of Ergon Energy was required.

The Customer

Ergon's electricity distribution remit is to supply approximately 750,000 customers in a service area in excess of 1.7 million km2 (approx. 650,000 square miles, or 97% of the state).

The Ergon distribution network comprises approximately 178,000 km's (110,000 miles) of powerlines and over 1 million power poles as well as numerous infrastructure assets; substations, transformers and over 30 independent power stations.

The Challenge

In order to meet their operational remit, Ergon Energy needed a secure, reliable and affordable wireless communications solution to provide encrypted voice and SCADA-like data coverage for their workforce and assets over all geographical areas of operation as well as offices, depots and substations etc.

Ergon Energy has a duty of care not only to its employees to ensure their safe working environment, but as a utility also to consumers, the government, as well as wider environmental obligations (Queensland state includes over 200 national parks and 5 world heritage areas) to ensure that infrastructure is in a safe operating condition at all times.

At the commencement of the communications project Ergon had approximately 30 communications sites, but this was anticipated to expand out to approximately 200 sites over the course of the deployment project in order to meet the network geographical coverage requirements.

P25
Secure
Encrypted
Voice
Data
Network

The Auria Wireless Solution

The client's needs demanded a significant communications network, which would encompass providing secure reliable and robust wireless communications coverage wherever staff were required to work. Such a network from a traditional communications manufacturer had the potential to be extremely expensive if implemented as newly deployed infrastructure components (ie, a 'forklift' upgrade).

Few suppliers had the capacity, capability and skills to provide the features required by the client in a single digital P25 network, the provision of which was a key requirement to ensuring the security and safety of the client's workforce. Although such a large network

could have been broken into small subnetworks, doing so would have impacted the single pane of glass view the client required at the executive management level to ensure OH&S obligations were being met.

Also setting Auria Wireless apart from its competitors was the ability to reuse existing analogue communications equipment as key constituent components in a new P25 digital communications network. By supplying the Etherstack P25 Channel Controller (from Auria Wireless' parent company) to augment existing analogue base stations, the technical response offered by Auria Wireless enabled the client to both reuse existing infrastructure the client owned and had experience in maintaining, and to commoditise infrastructure manufacturers reducing overall acquisition costs.

In addition to offering the most competitive solution, by using the Etherstack OEM core communications network, Auria Wireless was able to provide industry-leading features, such as duress management with crash sensor support, call recording, geolocation services, and industry-standard interfacing (ISSI, CSSI etc) again ensuring that the client did not become ensnared in a premium priced proprietary communications solution – instead ensuring open standards interfacing and enabling best in class components to be used at market competitive prices.

P25 Channel Controller

100%
SYSTEM
UPTIME

Post-Deployment & Future

In the years since the network was first deployed, Auria Wireless has continued to supply ongoing professional services to ensure that the P25 wireless communications network continues to operate at peak performance, providing the client assurance of network availability and reliability as well as level-2 and level-3 technical support services.

Speaking of the Ergon Energy wireless communications solution, Auria Wireless (and Etherstack) CEO, David Deacon, said:

"We are immensely proud to have supplied the wireless communications network to Ergon Energy, which is still one of the largest P25 networks in the world. In the years since the network was deployed, Etherstack has seen a significant wave of interest in secure and reliable wireless digital networks from utilities companies around the world and this has led to Etherstack supplying many other P25 networks to utilities firms across Europe, Oceania and the Americas".

Auria Wireless specialise in the design, delivery and support of best-in-breed wireless voice and data communications solutions for clients in the Oceania and SE Asia regions. Auria Wireless is a wholly-owned subsidiary of Etherstack.

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Etherstack provide wireless communications software and systems to LMR, defence, utilities / resources and public safety markets world-wide.

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