



NEXT GENERATION PUBLIC SAFETY

VERTEL UPGRADED EXISTING ANALOG TWO-WAY RADIO NETWORK TO A P25 DIGITAL SOLUTION THAT PROVIDED COVERAGE ACROSS THE ENTIRE COFFS HARBOUR REGION.

Coffs Harbour is located on the North Coast of New South Wales. This coastal tourist city has an estimated population of 70,000 stretched over 1,100 square kilometres. A regional hub, the city has a campus of Southern Cross University, several hospitals and a busy regional airport.

The Council is one of the biggest employers in the city, with approximately 550 staff who are responsible for the national parks and many beaches which surround the city. This varied terrain makes public safety and emergency services communication critical to the council's operations.

THE CHALLENGE

The council decided to upgrade their existing two way radio network to a digital format. Utilising as much existing infrastructure as possible, the council needed a solution which would provide comprehensive network coverage and integrate multiple protocols into a single system. The council also needed interoperability with other public safety networks and wanted the ability to selectively call and talk to individual radios, for more effective one-to-one radio conversations.



COFFS HARBOUR CITY COUNCIL RUNS AN ANALOG TWO-WAY RADIO NETWORK WHICH WASN'T CAPABLE OF INTEROPERATING WITH PUBLIC SAFETY NETWORKS. THEY WERE LOOKING FOR A DIGITAL P25 NETWORK THAT HAS ABILITY TO SELECTIVELY CALL AND TALK TO INDIVIDUAL RADIOS FOR MORE EFFECTIVE 1-1 RADIO CONVERSATIONS..





Coffs Harbour City Council required a network that would:

- Address regulatory directives from ACMA and North Coast District Councils.
- Enable greater interoperability between Council, state and federal Agencies.
- Have VoIP and Video capabilities.
- Be fully managed and highly available.

OUR APPROACH

Experts in two way radio for over 40 years, Vertel knew a P25 solution would be able to meet all of the council's requirements. P25 has been the standard of choice for public safety agencies for a number of years due to its high level of interoperability.

Vertel's extensive experience in fixed wireless networks meant Vertel was able to provide a dedicated Layer 2 backhaul solution for the entire two way radio network. Provided as a fully managed service the solution works to strict SLA's and is proactively managed from Vertel's Coffs Harbour office and it's national operations centre.

Throughout the design process Vertel worked closely with the council to upgrade rather than replace as much infrastructure as possible, ensuring a highly cost effective solution.

THE SOLUTION

Vertel upgraded Coffs Harbour City Council's existing analogue two-way radio network to a P25 digital solution. In order to provide coverage across the entire region Vertel tapped into its portfolio of exclusive sites to add to the councils existing network. The five key sites that made up the network were linked using a Layer 2 Ethernet connection to ensure prioritisation of key traffic.

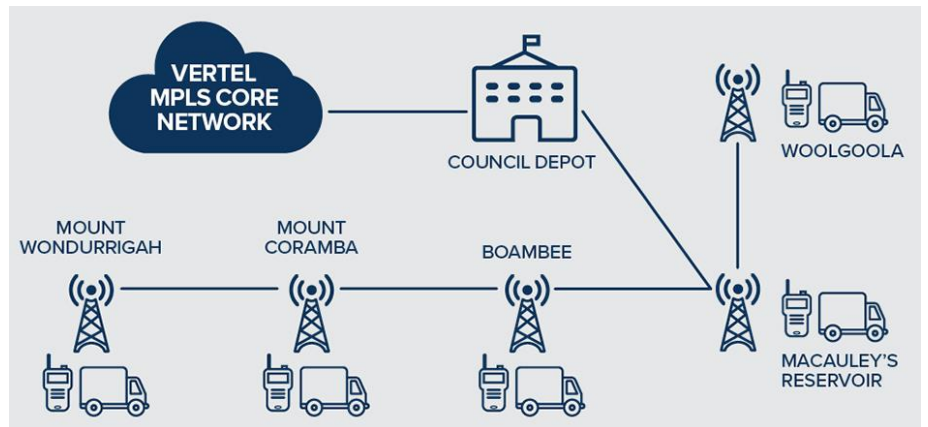
“THE COMMERCIAL DELIVERY OF A NETWORK DESIGNED TO THIS STANDARD MADE PERFECT SENSE. BY ADOPTING THIS STRATEGY WE HAVE BEEN ABLE TO INVEST IN A NETWORK AND P25 APCO SOLUTION THAT DELIVERS COFFS HARBOUR COMMUNITY FUTURE PROOF NETWORK ARCHITECTURE ENSURING THE HIGHEST STANDARDS OF PUBLIC SAFETY AND SERVICE, AS WELL AS THE ABILITY TO ACCESS TO SCALABLE LAYER 2 ETHERNET AND LAYER 3 IP SERVICES.”

Andrew Sales

Manager, Telecommunications and New Technology
Coffs Harbour City Council

VERTEL WORKED CLOSELY WITH THE COUNCIL TO DELIVER A HIGHLY COST EFFECTIVE SOLUTION BY UPGRADING THE INFRASTRUCTURE AS MUCH POSSIBLE RATHER THAN REPLACE.

- UPGRADED EXISTING RADIO SYSTEM TO P25 APCO TWO-WAY NETWORK.
- ADDITION OF NEW SITES FOR 100% COVERAGE.
- INTEGRATED OMNITRONIC SIP ENABLED MANAGEMENT SYSTEM AND IP GATEWAY.
- DELIVERED USING A DEDICATED LAYER 2 ETHERNET NETWORK.
- 100% COVERAGE OF THE ENTIRE COUNCIL WARD.
- 24/7/365 SUPPORT.



THE RESULTS

The completed project has provided the council with significant economies of scale through leveraging common infrastructure. The new network provides fully integrated radio and telephone communications while successfully bringing a next generation network to this regional community.

The P25 standard has successfully enabled interoperability between different services. As Coffs harbour City Council CIO Andrew Sales noted "Coffs Harbour city Council has been provided with an Emergency Radio Network that serves as a model for all other local Government bodies". His words were proven true in 2011 when Armidale Dumaresq Council approached Vertel for a P25 solution based on the Coffs Harbour network.

Since the project commenced in 2008 Coffs Harbour City Council and Vertel have worked closely together, partnering on a number of projects, such as the Coates Hire Rally Australia motorsports event, to provide maximum value to the Coffs Harbour community. Vertel's ability to provide high capacity, uncontended backhaul to the council's dark fibre network has also had a significant impact on the council's day to day operations.

ABOUT US

We are an Australian licensed telecommunications carrier specialising in the design, build and operation of next generation critical communications network infrastructure and associated services. We have over 40 years' of experience delivering critical network services to Government, Enterprise and Service Provider organisations. We specialise in delivering carrier grade and alternate telecommunications infrastructure in non-metro, regional and remote Australia.

We have offices across the country with a national network operations centre (NOC) in NSW that proactively monitors our networks 24/7/365.

**Contact us on 1300 837 835 (1800 VERTEL) or info@vertel.com.au.
Visit us at www.vertel.com.au.**