



## A NATIONAL APPROACH TO RADIO

WE DELIVERED A LOW LATENCY LAYER 2 CONNECTION OVER MICROWAVE ACCESS AND FIBRE MPLS CORE WITH STRICT SLAS AND QOS GUARANTEES TO SUPPORT LIVE BROADCASTING.

Australian Radio Network (ARN), is the largest owner of radio stations in Australasia with investments in 12 radio stations in Australia, 124 in New Zealand and a growing presence in the online digital radio market.

ARN's stations broadcast in 5 metropolitan markets across 4 core brands; KIIS 1065, MixFM, Classic Hits and The Edge. With offices in Sydney, Melbourne, Brisbane, Adelaide and Canberra ARN employees more than 500 staff and is at the forefront of the media industry.

### THE CHALLENGE

To maximize efficiency and streamline resources ARN sought to connect its locations nationally using a high speed, low latency network. It would use this network to transfer broadcast content as well as other proprietary traffic.

It was critical that these two traffic types could be split, with broadcast content given priority. To make sure it stays on air 24/7 ARN also needed guaranteed availability from this network, so a media diverse solution was highly desirable.



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ARN required a network that would:

- Allow prioritisation of traffic types.
- Be path and media diverse for full redundancy.
- Conform to SLA's and QoS standards to support live broadcasting.
- Be highly scalable to cope with increasing bandwidth demands.

## OUR APPROACH

Ethernet was the logical technology for this network due to its ability to split and prioritise traffic across a network. This meant that Vertel could ensure ARN's broadcast content was given utmost priority at all times, despite using the same network infrastructure as other LAN traffic.

Vertel's Etherwave service provides Carrier Ethernet over our hybrid fibre MPLS core and microwave access network. Using microwave to deliver the last mile provides media and path diversity, thus meeting ARN's need for a fully redundant solution.

Etherwave was the first microwave delivered service in the world to be certified by the MEF (Metro Ethernet Forum), the service performs to strict SLA's and has QoS guarantees on packet loss and jitter – providing a fibre equivalent service over a path diverse media.

## THE SOLUTION

Vertel's existing presence in all major capital cities meant Vertel was able to quickly deliver 10Mbps symmetrical links to ARN's Sydney, Brisbane, Melbourne and Adelaide locations. As Vertel provides a Layer 2 hand-off it was able to engineer the network to give priority to broadcast content.

Vertel's highly scalable and flexible network meant that an additional 20Mbps Netconnect Internet service was delivered to ARN's Melbourne office using the same infrastructure. The network was also engineered with the ability to increase capacity and add services at all locations to fulfil future requirements.

“ THE PROCESS WAS SEAMLESS FROM START TO FINISH. FROM INITIAL PROJECT SCOPE, THROUGH TO THE SUCCESSFUL DELIVERY, THE SOLUTION WAS IMPLEMENTED WITH MINIMAL DISRUPTION TO STAFF OR ON-AIR SERVICES. ”

**Graeme O'Conner**  
Group Chief Engineer  
Australian Radio Network

- HIGH PERFORMANCE LAYER 2 CONNECTION DELIVERED OVER MICROWAVE ACCESS AND MPLS FIBRE BACKHAUL.
- FULLY MANAGED AND SCALABLE.
- STRICT PERFORMANCE SLAS AND QOS GUARANTEES.
- LOW LATENCY TO SUPPORT LIVE BROADCASTING.
- 24/7/365 SUPPORT.



## THE RESULTS

Vertel's solution for ARN has been in place for 5 years and there is a strong relationship between both companies, "The Vertel network allows us to efficiently manage proprietary and next generation traffic over carrier grade infrastructure" says Group Chief Engineer Graeme O'Conner.

As technology and needs have changed the links to all ARN offices have had their capacity doubled to 20mbps and an additional link to ARN's Canberra office has been added. There are currently plans to expand the network to other key ARN sites and link capacity is expected to increase as the online digital radio market continues to grow.

## 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](mailto:info@vertel.com.au).  
Visit us at [www.vertel.com.au](http://www.vertel.com.au).