



Delivering High-Quality Ethernet Service over Long Distances

NEC iPaso VR2s are ideal for critical infrastructure ethernet services at long distances

Challenge

Provide a High-Quality Ethernet service over wireless link with low latency, high speeds and 1+1 redundancy over a large distance.

Solution

NEC iPaso VR2s are ideal wireless radios as they offer 1+1 redundancy with low latency and up to 2048-QAM using space diversity.

RVC ICT
CONSULTING

The customer was a government department wanting to link one of their critical sights on Mt Cotton to their office in the Gold Coast. They were at the time utilizing a VPN service offered by Telstra. They were after a wireless Ethernet service solution for high speed, high reliability connectivity for their offices.

In planning the service rollout, RVC ICT had to overcome a major obstacle: Lack of line of sight.

A possible solution would have to rely on a relay point between the two sites. But the vast distance and numerous apartment buildings located around the office in the Gold Coast, impeding line of sight posed a difficult challenge.

Features

- Full range of frequency (6GHz – 42GHz)
- QPSK – 2048 QAM
- TDM (E1/ch STM-1/STM-1 RST)

Benefits

- TDM support
- Delivers optimal performance
- Low latency



A solution was devised that would rely on a relay point between Mt Cotton and their office in the Gold Coast. An apartment building located next to the office was identified as an optimal relay point and roof space for the antennas were provided at cost. The wireless link would run from Mt Cotton to the relay point and from the relay point another wireless link would be setup to provide connectivity to the office.

RVC ICT utilized NEC's iPaso VR2 for the long-distance link as they offered 1+1 redundancy, low latency and superior antenna gain to antenna size ratio. The NEC iPaso VR2 managed to push 50Mbps over 50km at 2ms latency.

Ubiquiti airFibers 24Ghz were used to provide high throughput connectivity to the office from the relay point. This short distance link guaranteed them an overall aggregated throughput of 1Gbps.

