



# Ravensworth Mine Project Overview

Ravensworth Operations  
Australia



Requiring a robust, mission-critical wireless solution to link a network of Tetra digital radios for a mining customer, mobile communication supplier, Gencom, selected Mimomax to provide a high capacity intelligent linking solution which could withstand the high temperatures of rural Australia.

## CHALLENGE

Due to the extreme conditions and difficult terrain, Gencom was looking for a linking solution offering hardened terminals which could operate across a wide temperature range and maintain a high level of availability, even under adverse conditions.

In addition, the solution needed to provide enough data capacity to run a number of voice channels across a narrowband 25 KHz channel. As the mining customer also used relocatable communications trailers, the linking solution needed to offer very low power consumption to allow for solar powered operation.

## SOLUTION

Mimomax provided a very low latency, high capacity Network Digital Link point-to-point solution which would support 7 mission critical voice channels in addition to data payload traffic.

Offering full system functionality up to 60 degrees C, the Mimomax system was also sealed against dust, water and vermin and could be run on solar power due to the low power consumption of the Mimomax radios.

Rerouting adaptation protocols were also incorporated in order to reroute data to the next available radio link to prevent data loss and reduce network downtime.



Five Islands to Speers Point © Tim J Keegan, Flickr

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## RESULTS

The progressive network architecture of the Mimomax NDL solution offers very high availability under adverse conditions and also allows for redundant operation. Performance was also optimized due to intelligent routing and Quality of Service (QoS) systems ensuring the simultaneous transport of voice and control data.

The availability of the system was also maximized due to the use of high gain, dual-polarized Loop Yagi antenna which enabled wide beamwidth to accommodate shifts in location from the transportable communications trailers.

In addition, the ability to operate the system using solar power made the Mimomax solution approximately 65% more efficient than other solutions that were considered, thereby reducing operational costs for the customer.

## KEY BENEFITS

- High capacity links with capability to backhaul 7 voice channels plus data
- Low power consumption solution – ideal for solar powered operation
- Robust equipment designed to withstand high temperatures and harsh environmental conditions
- Intelligent routing protocols incorporated for performance optimization

## ABOUT RAVENSWORTH OPERATIONS

**Location:** Hunter Valley, NSW, Australia

**Industry:** Mining

**Services:** Longwall underground coal mining



#### About Mimomax

Mimomax develops wireless communications solutions for narrowband channels which enhance visibility and control - right to the edge of our customer's networks.

Our award-winning radios utilize Multiple Input, Multiple Output (MIMO) technology combined with full duplex communications and ultra-low latency to provide our customers with communications solutions which optimize data throughput and provide rapid feedback and control of their mission-critical assets.

Winner of the 2018 UTC IMPACT Award for Mimomax Tornado Radio.

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