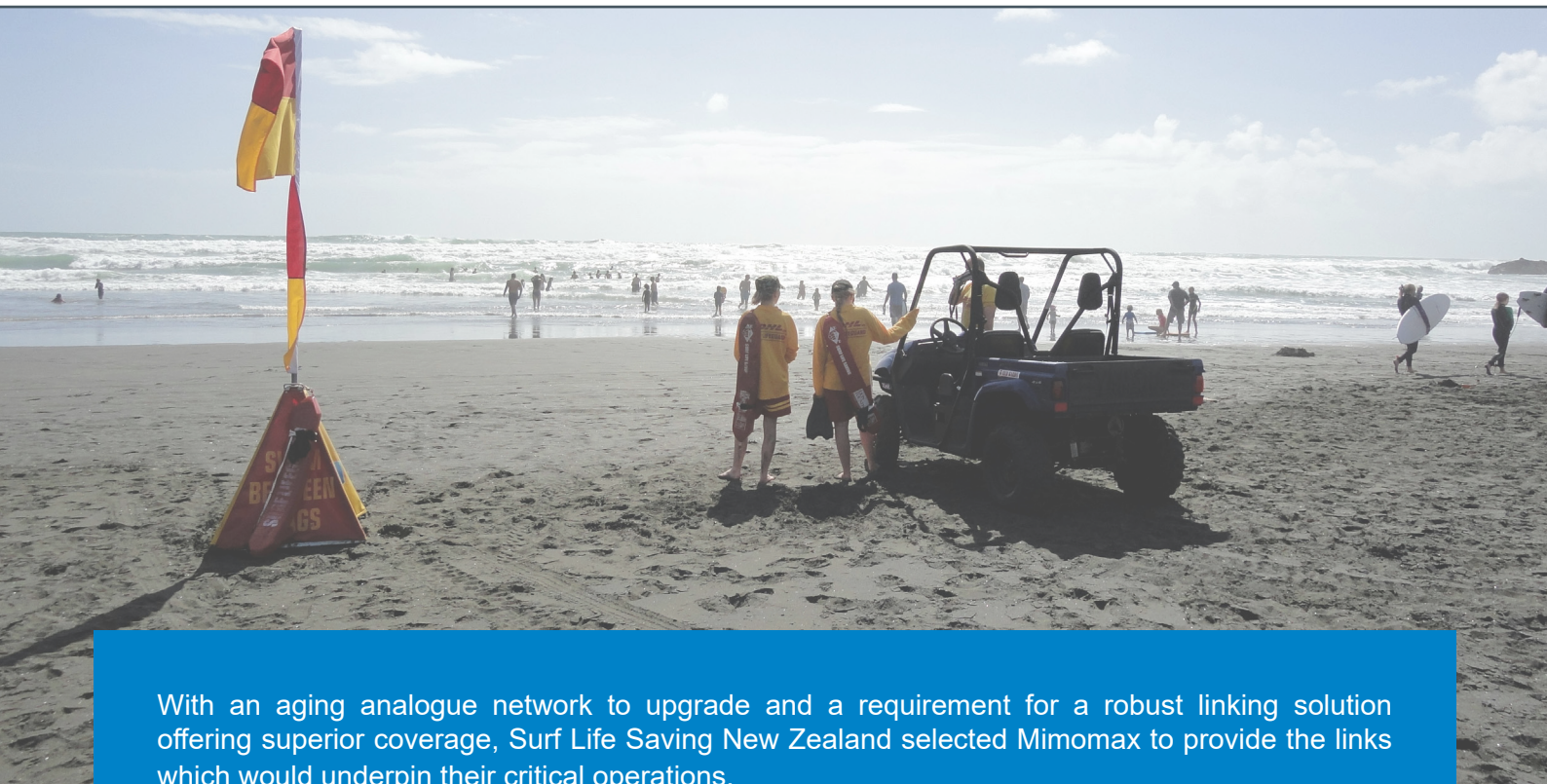




Coverage, Reliability and Security for Surf Life Saving New Zealand

Surf Life Saving NZ
New Zealand



With an aging analogue network to upgrade and a requirement for a robust linking solution offering superior coverage, Surf Life Saving New Zealand selected Mimomax to provide the links which would underpin their critical operations.

CHALLENGE

Surf Life Saving New Zealand (SLS) was planning a full upgrade of their analogue network but were contending with constraints created by cost, topography and some non-line of sight linking. Working closely with Logic Wireless, a distributor of Business Critical Communications solutions, to determine their needs, SLS had assessed Land Mobile Radio and Broadband (LTE) options prior to settling on a Digital Mobile Radio Tier II solution.

For the linking component of the project, microwave had been considered but was found to be cost-prohibitive compared to using a high capacity, narrowband link.

Due to the critical nature of their operations, maintaining the integrity of Surf Lifesaving's communications solution was vital – it was imperative that there could be no interference which would impact either the security or availability of their network.

SOLUTION

Digital Mobile Radio technology was selected by Surf Life Saving due to the clarity of the audio, lower power consumption, integrated data applications and open standards platform. Hytera radios were therefore combined with Mimomax narrowband links, deployed in UHF 440-446MHz band, to carry Surf Life Saving's network IP traffic.

Offering the ability to achieve secure, fast, reliable links over water in addition to non-line of sight links, the Mimomax solution proved to be ideal in terms of both

data capacity and low latency. Compared to installing microwave towers which would require a multi-hop approach, the Mimomax link could cover the same distance in a single hop, making it a far more cost-effective solution overall.

In addition, specialist coverage engineers at Mimomax carefully analyzed all of the radio paths prior to deployment to ensure risk had been significantly mitigated.

“The first two links in this project were relatively long paths, at 72km and 55km respectively. As the links were predominately over tidal seas paths, the UHF Mimomax solution enabled us to avoid the multipath challenges often associated with tidal variation.”

JOHN WILKINSON | NETWORK DESIGN MANAGER - MIMOMAX WIRELESS



RESULTS

Three years following the first phase deployment, the Mimomax links continue to operate without fault. As funding becomes available, the network upgrade is being rolled out into additional regions.

Through basing their communications network on licensed narrowband spectrum, SLS have ensured both the reliability of their links today and the availability of their network into the future. Furthermore, in selecting high capacity, ultra-low latency Mimomax radios for the linking element of the project, their new network is well-equipped to transfer their IP traffic rapidly and reliably without distortion due to congestion or environmental factors.

Through working closely with Logic Wireless to gain independent advice and support, SLS have managed to create a best-fit communications solution that services their mission critical needs.

KEY BENEFITS

- Mitigation of out-of-band and self-interference via channelization and frequency re-use
- Double the data throughput, optimizing investment in spectrum
- Solution equipped for challenging terrain and harsh weather conditions
- Ability to simultaneously monitor SCADA applications and update software

ABOUT SURF LIFE SAVING NZ

Location: New Zealand

Industry: Public Safety

Services: Supporting 74 clubs with 17,000 members around New Zealand, each year Surf Life Saving NZ provides over 220,000 patrolled hours on New Zealand beaches.

ABOUT LOGIC WIRELESS

Logic Wireless offers value-add distribution and technical support of high quality business critical communications products, solutions and accessories.



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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