

ROHDE & SCHWARZ

Make ideas real



AIRWAYS NEW ZEALAND – QUAD-REDUNDANT VCS ARCHITECTURE

Nationwide VCS virtual center provides reliability, innovation and flexibility

AT A GLANCE

- ▶ Airways New Zealand is currently using the integrated CERTIUM® communications system from Rohde & Schwarz
- ▶ The system's IP design helps pool ATC resources in a virtual control center
- ▶ The quad-redundant, distributed architecture facilitates a "one center – two locations" approach
- ▶ It significantly increases resilience and provides unique geographic flexibility to manage operations in a single trusted environment



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The customer

Airways New Zealand provides air navigation and air traffic management consulting and training services in New Zealand and over 65 other countries. The state-owned enterprise handles over 780 million aircraft movements each year and has over 30 million square kilometers of airspace under its control.

Customer requirements

New Zealand is a challenging environment exposed to natural disasters such as earthquakes and tsunamis. To keep the national airspace open when disaster strikes, flights must be able to take off and land at any time. As air navigation services providers (ANSP) for New Zealand, Airways needed a highly reliable system with significant increased resilience and unique geographic flexibility to manage their operations even in the event of large scale natural disasters.

For further information visit
www.rohde-schwarz.com





ROHDE & SCHWARZ SOLUTION

Rohde & Schwarz delivered an IP based voice communications system in a quad-redundant, distributed architecture to support the Airways New Zealand “one center – two locations” approach for highly resilient operations. The servers of the VCS are redundantly installed on both the North Island and South Island of the country. In the event of a natural disaster, one datacenter can take over for the other. The air-space can be transferred seamlessly between the ACC in Auckland and Christchurch.

The solution includes 150 CWP systems in Auckland and Christchurch (ACC, tower, training and simulation) and 112 compact CWPs for stand-by and training systems.

The IP design helps pool ATC resources in a virtual control center for improved airspace management with better utilization of human resources, greater employee satisfaction and higher profits.

KEY FEATURES OF CERTIUM® VCS

The CERTIUM® VCS is a flexible and cost-effective voice communications system that meets all ATC needs. It satisfies the established requirements for ATC availability, reliability and safety as well as the growing demand for dynamic ATC scenarios with network based sharing and distributed operational resources.

CERTIUM® VCS uses VoIP technology with SIP, RTP and R2S protocol support in line with the EUROCAE WG67 ED standard. The unique, centrally managed yet distributed architecture makes the system highly scalable, resilient, while remaining easy to manage and operate. It can be easily expanded by adding new devices to the network.

Security is very important for Rohde & Schwarz. The CERTIUM® VCS is strictly in line with the security-by-design approach. The system uses state-of-the-art secure protocols and strong system hardening and continuous security process monitoring.

CERTIUM® VCS meets next generation ATC requirements such as asset sharing, facility consolidation, geographical distribution and remote tower technology, giving ANSP an effective solution for present and future global aviation safety and efficiency needs.

CERTIUM®

- ▶ CERTIUM® is an advanced ATC communications suite that exceeds current safety, security and efficiency standards. All CERTIUM® products seamlessly integrate into a single portfolio. Individual systems can be used independently, while combining them with other CERTIUM® products brings the greatest benefits.
- ▶ CERTIUM® VCS is a quad-redundant, IP based voice communications system that perfectly integrates with the entire CERTIUM® portfolio to ensure safe, secure and efficient airspace operations. It combines a state-of-the-art, flexible and resilient purely IP based architecture with strong security mechanisms. Its flexibility makes it suitable for both small towers and nationwide systems with multiple area control centers and hundreds of controller working positions.

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