ROHDE&SCHWARZ

Make ideas real

TAIWAN REDUCES SYSTEM COMPLEXITY WITH R&S®Series5200 RADIOS

Maximum interface flexibility for minimum integration effort

AT A GLANCE

▶ As part of a longstanding and successful partnership, Air Navigation and Weather Services (ANWS) of Taiwan has chosen Rohde & Schwarz to provide the country's airports with reliable communications and the highest level of security

▶ Parts of the CERTIUM product portfolio serve ANWS as a one-stop-shop, including CERTIUM VCS and advanced R&S®Series5200 radios in combination with R&S®Series4200 radios that help ANWS meet present and future ATC communications infrastructure needs

▶ The powerful and extremely flexible radio architecture can be easily adapted to a wide range of scenarios, helping ANWS simplify system design and minimize implementation work, while providing highly satisfactory performance

The customer

Air Navigation and Weather Services (ANWS) of Taiwan provides air traffic control (ATC) services. ANWS is responsible for ensuring flight safety and air transport convenience and has a quality policy that focuses on flight safety and air traffic services that combine world-class customer service with timely, accurate and complete services.

Customer requirements

The market for secure ATC communications systems is moving towards voice over IP (VoIP) and legacy VCS systems cannot handle the new interoperability requirements. So, ANWS decided to switch to ED-137-compliant VoIP radios. Migrating ground infrastructure to IP technology is more complex and this needs to be taken into consideration when replacing essential system elements such as VHF/UHF radios. ANWS needed a highly flexible and adaptable radio system that is easy to use and can handle growing ATC infrastructure challenges.

For more information, visit
www.rohde-schwarz.com

Rohde & Schwarz solution

Rohde & Schwarz offers professional and reliable support for the growing demands placed on radio technologies. Maximum interface flexibility and minimal integration effort make the R&S®Series5200 radio ideal for reducing complexity, risk and system implementation work during this important transition while still meeting current and future ATC communications infrastructure requirements.

ANWS is a longstanding partner of nearly 20 years and uses CERTIUM VCS at numerous airports. Rohde & Schwarz was also chosen to supply a fully IP based voice communications system for seven towers in the main system and for the backup and tower backup systems. Another two small towers on offshore islands use R&S®GB5450 compact controller working positions as their main system, underscoring the Rohde & Schwarz commitment to uncompromising quality. Rohde & Schwarz is also providing two voice communications systems (VCS) to training centers in north and south Taiwan.

For seamless integration and easy maintenance, Rohde & Schwarz also supplied the R&S®Series5200 and R&S®Series4200 air traffic control radios, the most innovative air traffic control radios on the market, along with antenna multicouplers, antennas, radio test sets such as the R&S®CMA180, and remote control units. These are all part of the CERTIUM advanced communications suite. The plug-and-play R&S®Series5200 radios make software updates and configuration changes easy and convenient. A user-friendly web GUI instantly displays the radio status and parameters for more efficient maintenance.

The growing ATC system requirements and the use of VoIP in ANWS VCS systems meant a second, multiple network interface was needed. Since these networks have redundant elements to minimize outages, the virtual IP address for the R&S®Series5200 is shared by main and standby radios for enhanced VCS availability and flexibility. After over a year in operation, ANWS reports a very smooth transition, satisfactory performance in multiple application scenarios and easy integration into the existing system.

Key CERTIUM RADIO features

CERTIUM RADIOS cover the entire ATC range from VHF to UHF and HF with outstanding transmission parameters. The R&S®Series5200 radios are the next generation of VHF and UHF radios for ATC communications with increased system reliability and a new security-by-design architecture to make air travel even safer. The radios are future-proof and the software defined radio concept means system expansions require no additional hardware.

Key CERTIUM VCS features

CERTIUM VCS is a quad-redundant, IP based voice communications system that integrates perfectly into the entire CERTIUM portfolio for safe, secure and efficient airspace operations. CERTIUM VCS combines a state-of-the-art, flexible and resilient IP based architecture with strong security mechanisms. The flexibility of CERTIUM VCS makes is suitable for both small towers and nationwide systems with multiple area control centers and hundreds of controller working positions.

CERTIUM

► The CERTIUM advanced ATC communications suite exceeds current safety, security and efficiency standards
► All CERTIUM products seamlessly integrate into a single portfolio. Individual systems can be used independently, but combining them with other CERTIUM products brings the greatest benefits