

**ROHDE & SCHWARZ**

Make ideas real



# FIRST EVER VIRTUAL CENTER CONTROLS NORTH ATLANTIC AIR TRAFFIC

Modernizing communications equipment  
of AirNav Ireland and ISAVIA

## AT A GLANCE

- ▶ Aviation authorities in Ireland (AirNav Ireland) and Iceland (ISAVIA) have selected Rohde & Schwarz as sole supplier for modernizing their communications equipment
- ▶ Rohde & Schwarz delivered two fully IP based voice communications control systems and HF radios



### The customer

AirNav Ireland (formerly known as Irish Aviation Authority, IAA) is a commercial semi-state-owned company in Ireland responsible for the regulation of safety aspects of air travel. It is responsible for providing air traffic control services to Ireland's three main airports, namely Dublin, Shannon and Cork. Isavia ohf. is the national, state-owned airport and air navigation service provider of Iceland. It operates all public airports and air navigation services in a vast area in the north-eastern Atlantic.

### Customer requirements

In terms of safety and efficiency, the aviation authorities in Ireland (AirNav Ireland) and Iceland (ISAVIA) operate one of the world's most demanding operational air traffic control (ATC) scenarios over the North Atlantic. Shanwick oceanic control area (OCA), with an area of

approx. 3.8 million square kilometers, handles in excess of 400 000 aircraft movements annually. Reykjavik OCA is among the largest in the world, with approx. 5.4 million square kilometers, and handles some 100 000 airplanes per year. Here, flight routes regularly change between northern and southern routes in order to avoid the seasonal changes of the jet stream. The air navigation service providers (ANSP) act in close cooperation and jointly handle flight operations.

For more information, visit  
[www.rohde-schwarz.com](http://www.rohde-schwarz.com)



# 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 benefit

## Rohde & Schwarz solution

Rohde & Schwarz delivered two fully IP based voice communications systems (VCS) and HF radios. The two CERTIUM VCS solutions are set up independently from each other. One is located in ISAVIA's communications center in Gufunes, Iceland, and the other in AirNav Ireland's center in Ballygirreen, Ireland.

In a world-first deployment, CERTIUM VCS allows advanced scenarios such as air-to-ground and ground-to-ground resource sharing, as well as virtual center operations. ISAVIA and AirNav Ireland can operate their individual control centers on demand in joint operations mode, sharing radio and telephony communications resources as if they were in a single ATC center.

The quad-redundant systems have been operational for years and the two ANSPs have reported a significant improvement in staff satisfaction, as well as resource utilization, as they can now react flexibly to volatility in traffic volumes and avoid seasonal changes of the jet stream. The two ANSPs operate as one network and handle traffic volumes jointly in their two flight information regions (FIR).

## Key features of CERTIUM VCS

CERTIUM VCS is flexible and cost-effective, meeting 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 and resilient, while remaining easy to manage and operate. It can be easily expanded by adding new devices to the network.

CERTIUM VCS meets next-generation ATC requirements, such as asset sharing, facility consolidation, geographical distribution and remote tower technology.

## Key features of CERTIUM RADIOS

CERTIUM RADIOS cover the entire range used in ATC from VHF to UHF and HF with outstanding transmission parameters.

The R&S®M3SR Series4100 HF radios are innovative, versatile radios that belong to the popular R&S®M3SR radio family. Shortwave communications are a resource that can be set up easily, offer extreme reliability and are highly valued by security authorities and organizations, as well as military users all over the world.

[www.rohde-schwarz.com](http://www.rohde-schwarz.com) | [www.rohde-schwarz.com/support](http://www.rohde-schwarz.com/support) | [www.training.rohde-schwarz.com](http://www.training.rohde-schwarz.com)

R&S® is a registered trademark of Rohde & Schwarz GmbH & Co. KG  
Trade names are trademarks of the owners  
First ever virtual center controls North Atlantic air traffic  
PD 3683.6358.32 | Version 01.00 | October 2023 (ch)  
Data without tolerance limits is not binding | Subject to change  
© 2023 Rohde & Schwarz GmbH & Co. KG | 81671 Munich, Germany