

CERTIUM VCS FOR SHELTER APPLICATIONS



Your challenge

In addition to the standard deployment of voice communications systems in buildings and towers, requests for shelter installations are becoming more frequent. Application scenarios range from cost-optimized ATC tower systems to semi-mobile emergency and air defense (AD) systems.

A common factor in these installations is that the space in the shelters is limited. How can all the required equipment, such as radios, VCS, radar screens, computers and servers, fit into just 30 cubic meters?

Beyond space constraints, the usual ATC/AD requirements for reliable air-ground and ground-ground communications and for cost-effective solutions have to be met.

Rohde & Schwarz solution

CERTIUM VCS is a purely IP based communications infrastructure that can be used to address shelter scenario challenges.

Small footprint

VoIP systems migrate intelligence away from the network core to the peripheral equipment at the network edge. Purely IP based communications systems function without a central TDM switching matrix, with only a redundant local area network. The controller working positions load all the information needed to execute air-ground and ground-ground communications commands from a database. The integration of VoIP radios into the overall architecture saves even more space. Sharing the underlying IP infrastructure with other data applications eliminates the need to install additional components in the shelter.

Reliable communications

By migrating intelligence away from the network core to the peripheral equipment, a failure in one part of the system does not affect operation of the rest of the system. The fully redundant architecture results in higher reliability and availability. Using proven solutions from the air traffic control market ensures reliable communications in line with relevant standards, such as EUROCAE ED-137.

Cost-effectiveness

Sharing the same IP infrastructure for voice and data applications within the shelter creates synergies in procurement, operation and maintenance and allows the use of commercial off-the-shelf hardware, resulting in significant cost savings.

IP based voice communications solutions such as the CERTIUM VCS are ideal for shelter applications, providing significant space and cost savings as well as increased reliability.





Shelter installation.

Application

Rohde & Schwarz equips shelters from the microphone to the antenna

The defense organization of a South American country uses the Rohde & Schwarz voice communications infrastructure to equip several shelters with an IP based air-ground and ground-ground communications solution.

The solution consists of the fully IP based CERTIUM VCS voice communications system and the R&S®Series5200 radios. Rohde & Schwarz provides the entire communications infrastructure from the microphone to the antenna.

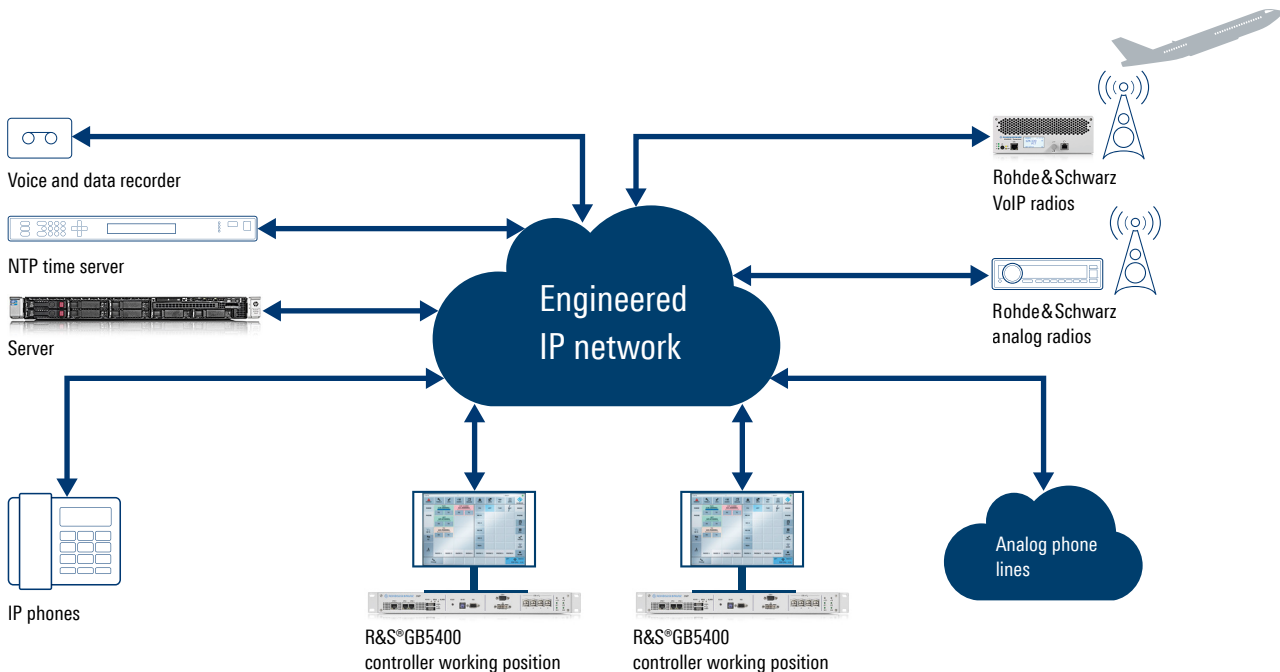
Defense staff at the shelters will be able to communicate with aircraft throughout the country, entirely independent from the outside world.

Shelter system overview:

- ▶ Rohde & Schwarz controller working positions
- ▶ R&S®Series5200 VoIP radios
- ▶ Rohde & Schwarz analog radios
- ▶ Interconnection to analog telephone lines
- ▶ Antenna array
- ▶ Communications infrastructure

The system is integrated by a local partner.

Rohde & Schwarz IP based voice communications solution for a shelter, from the microphone to the antenna



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CERTIUM VCS for shelter applications
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