R&S®VCS-Red/Black

TRUSTED END-TO-END COMMUNICATIONS SOLUTION FOR MISSION CONTROL

ROHDE&SCHWARZ

Make ideas real

R&S®VCS-R/B

- ▶ All communications networks on a single screen

- ▶ Certified secure domain separation

- ▶ Full IP network technology

- ▶ Field-proven solutions

- ▶ One-stop shop for secure communications

- ▶ Trusted partner for the entire project lifecycle

- ▶ Support for crypto pooling

INTRO

The R&S®VCS-R/B provides clear separation between the red/secure and black/non-secure domains, allowing the operator to simultaneously access two security domains using the same audio accessories and clear audio routing principles.

The separation between the two security domains is achieved by deploying a TEMPEST Level A, Common Criteria BSI-certified R&S®Trusted Audio Switch.

Each security domain is equipped with independent core equipment and provides access to the specific legacy and IP interfaces by using distinct demarcation equipment.

Thanks to its high level of versatility, the R&S®VCS-R/B can accommodate different installation scenarios such as fixed, deployable and mobile systems.

User intuitive operational areas for the red and black domains

SPECIFICATIONS

User benefits

► Secure and reliable access to secure and non-secure environments using a single operator panel and audio accessories.
► Dynamic reconfiguration: The modern GUI allows dynamic reconfiguration based on the role that the operator selects, either from the CWP GUI or from the RCMS application (e.g. single sign-on).
► Crypto pooling: With the R&S®VCS-R/B system, the user can enable crypto pooling mechanisms, allowing effective and secure crypto allocation to radio resources.
► Improved situational awareness at operator level by adding data applications like video streams to the operator HMI and integration into various C2/BMS applications.
► Customized operational preferences: Each operator can customize user preferences such as persistent role based audio selection - saved and recalled upon system logon.

► Faster cross-connections: The ability to quickly cross-connect air-to-ground and ground-to-ground calls saves the operator precious time in both routine and emergency situations.

Operational benefits

► True integrated and secure communications in a multi-level secure environment by deploying the R&S®VCS-R/B system.
► Increased availability and reliability: By deploying the distributed R&S®VCS-R/B redundant architecture, the system can withstand multiple failures at each location and still provide essential services even in the event of natural disasters or other irregularities.
► Flexibility and optimal resource utilization: The R&S®VCS-R/B enables any operator at any center to connect to any radio anywhere at any time.

Secure operator position
core elements

- ▶ International best practice: By utilizing state-of-the-art VCS technology that is deployed in hundreds of systems around the world, future users share in operational experience gathered by other users. In addition, users will have the option of upgrading to future versions/releases with an enhanced set of features.
- ▶ Future-ready: Technology moves at a fast pace. In this environment, it is important to have a system that can easily adapt to new technologies as they become available and as older ones become obsolete.
- ▶ Compliance with industry standards: R&S®VCS-R/B supports the ED137 standard to ensure safe and secure ATC voice communications. From a security perspective, the R&S®Trusted Audio Switches have been certified against Common Criteria by BSI.

- ▶ Interoperation: Seamless integration with other available third-party devices, C2 or mission-critical management systems can be achieved by the standardized and simplified exchange of information with the R&S®VCS-R/B.

R&S VCS-R/B system layout
- ▶ Single controller working position (CWP) for red and black domains
- ▶ All system components strictly separated between security domains
- ▶ Redundant application server
- ▶ Digital voice recording
- ▶ External crypto device between red and black networks
- ▶ Gateways to interface non-IP elements
- ▶ Management terminals

The integrated CWP of the R&S®VCS-R/B consists of:
- ▶ Touchscreen display: It receives data from the red and black processing units and displays a user-friendly GUI as the interface for the controller.
- ▶ R&S®Trusted Audio Switch (red/black separator): This is the component that ensures complete separation of the red and black networks, signals and audio streams. Furthermore, it provides a data output to the HMI processing unit.
- ▶ Separate red and black processing units: Each unit processes all the signaling and media from either the red or the black network and connects to the respective red or black LAN via FO links.
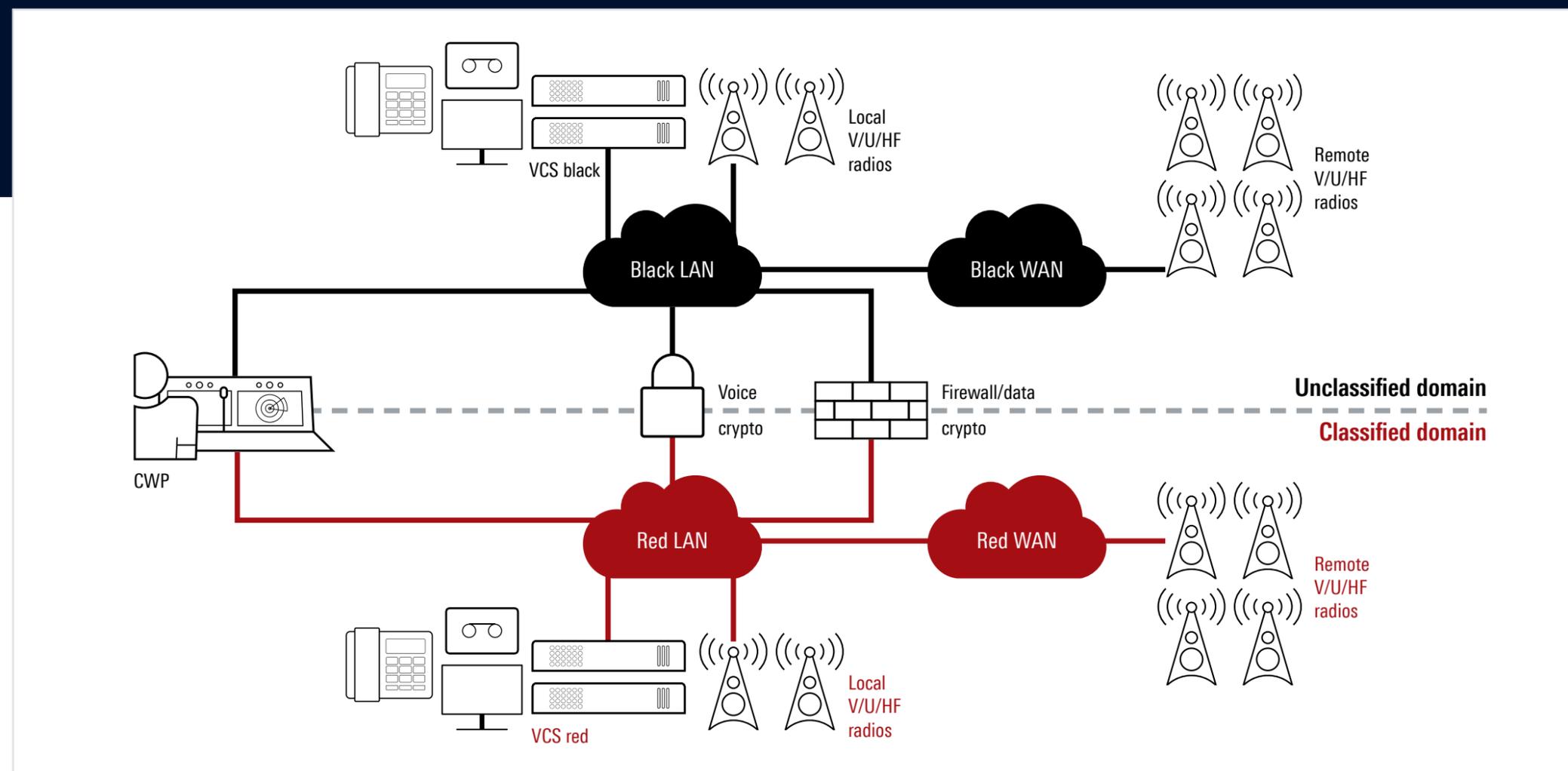
Rohde & Schwarz

The Rohde & Schwarz technology group is among the trail-blazers when it comes to paving the way for a safer and connected world with its leading solutions in test & measurement, technology systems and networks & cybersecurity. Founded more than 85 years ago, the group is a reliable partner for industry and government customers around the globe. The independent company is headquartered in Munich, Germany and has an extensive sales and service network with locations in more than 70 countries.

www.rohde-schwarz.com

Sustainable product design

- ► Environmental compatibility and eco-footprint
- ► Energy efficiency and low emissions
- ► Longevity and optimized total cost of ownership

Certified Quality Management	Certified Environmental Management
ISO 9001	ISO 14001

Certified Information Security Management
ISO 27001

Rohde & Schwarz training
www.training.rohde-schwarz.com

Rohde & Schwarz customer support
www.rohde-schwarz.com/support