ROHDE&SCHWARZ
Make ideas real

R&S®QPS201 INCREASES SECURITY AT NORWEGIAN PRISONS

AT A GLANCE

- ► **Customer**: Kriminalomsorgsdirektoratet (KDI), Norway
- ► **Task and requirement**: Entry control and loss prevention with a very high detection and low false rate in critical infrastructures. Reliable detection of metallic, non-metallic and liquid objects.
- ► **Project start**: Q1 | 2019
- ► **Project duration**: Multi-year project
- ► **Number of installations**: > 20 units
- ► **Project scope**: Nationwide program to increase security in Norwegian prisons. Project includes design, customization, implementation, training, support and services.

The customer

The Norwegian Correctional Service (KDI) is a government agency responsible for the proper execution of remand and prison sentences. The agency is governed by the Norwegian Ministry of Justice and Public Security. Because of the special geographical shape of the country and its low population density, combined with an intention to let the offender serve his sentence as close to the place of residence as possible, there is a need for a relatively large number of prisons. In total, Norway has a capacity of just over 3600 cells in 34 prison units with 57 prisons. Almost 70 % of these are high-security.

Customer situation and requirement

The access and entry points in prisons are key areas of vulnerability to smuggling. A reliable scanning of visitors and prisoners will help reduce the flow of drugs, phones, USB sticks, weapons and all types of potentially dangerous or prohibited objects. Prison staff in Norway is unarmed and consists for about 40 % of female officers. To increase security at several of the country's prisons, KDI recently held an open competition to procure the most efficient solution based on the following key requirements:

- ► High automatic detection and low false alarm rate of metallic, non-metallic and liquid objects
- ► Open architecture with unobstructed view of arriving persons
- ► Customer-specific service concept to ensure software updates and system availability

Rohde & Schwarz solution

Rohde & Schwarz offered KDI a customer-specific version of the proven R&S®QPS201 security scanner. In use at security screening operations around the world and deployed at security checkpoints in airports, correctional and industrial facilities, military compounds and other facilities, the R&S®QPS201 quickly screens subjects using safe, millimeterwave radio frequency technology and advanced artificial intelligence methods to rapidly, accurately and automatically detect concealed objects made of any material.
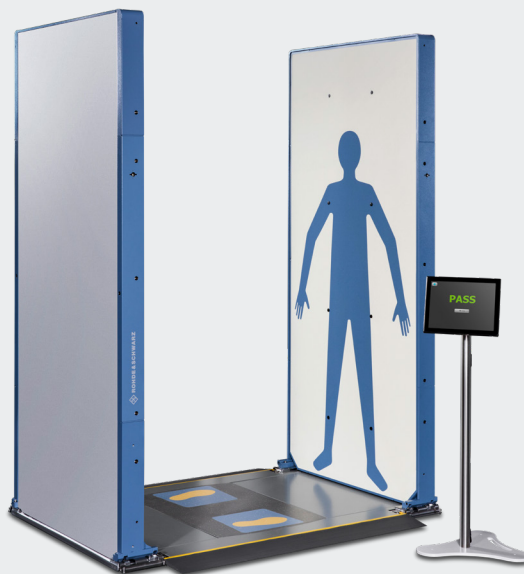
The system delivers high-precision and efficient security control while ensuring an unobtrusive, safe and uncomplicated experience for scanned persons. It consists of a flat panel with thousands of transmitters and receivers using extremely low-power millimeterwaves to gain high-resolution 3D information.

HIGHEST PRECISION AND SIMPLE TOUCHSCREEN OPERATION: R&S®QPS201

R&S®QPS201

▶ Best-in-class mmWave security scanner solution
▶ Automatic detection of concealed objects of any material
▶ Touchless, extreme fast screening
▶ Protects health and privacy
▶ Application and threat-specific software and user interface
▶ Very low operational costs
▶ Tailored service concept for the whole lifecycle

Results and achievements

After extensive testing, the R&S®QPS201 quick personnel security scanner and its open design and easier scan pose, was selected for the agency's nationwide security scanning project. KDI's premise was to supervise personnel including employees on their arrival and stay in the prison, without obstructing daily routines, and inmates running contraband. KDI highlighted the importance of using a security scanner to detect any contraband trying to be smuggled into prisons including drugs, weapons, cell phones, USB sticks and other prohibited items.

R&S®QPS 201 was chosen, based on performance tests, displaying a very high detection and low false alarm rate of metallic and non-metallic objects. Rohde & Schwarz engineers provided data files with the highest possible scan rate at the highest possible resolution. R&S®QPS 201 is able to detect small objects hidden on a person at a very high success rate.

Another plus is that the security scanner is easily positioned and does not block exits in case of emergencies; people are able to pass through the scanner without any obstruction. KDI will be using their own proprietary software, which Rohde & Schwarz was able to install, as the system is scalable and modular. Both, KDI and Rohde & Schwarz are cooperating and co-developing the R&S®QPS201 in order to make it even more suited for operation in correctional facilities.

The first installation was performed in December 2019 and rollout is still ongoing. Rohde & Schwarz will stand with its customer via an innovative and forward-looking service package. As a reliable partner, the company will support KDI through all phases of the lifecycle.

> „After extensive testing, the Norwegian Correctional Service has decided to use the R&S®QPS201 security scanner for their nationwide security scanning project. Among other things, the decision was based on the very high detection and low false alarm rate of metallic and non-metallic objects."
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> **Jan-Erik Sandlie, Deputy Director General, KDI**

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