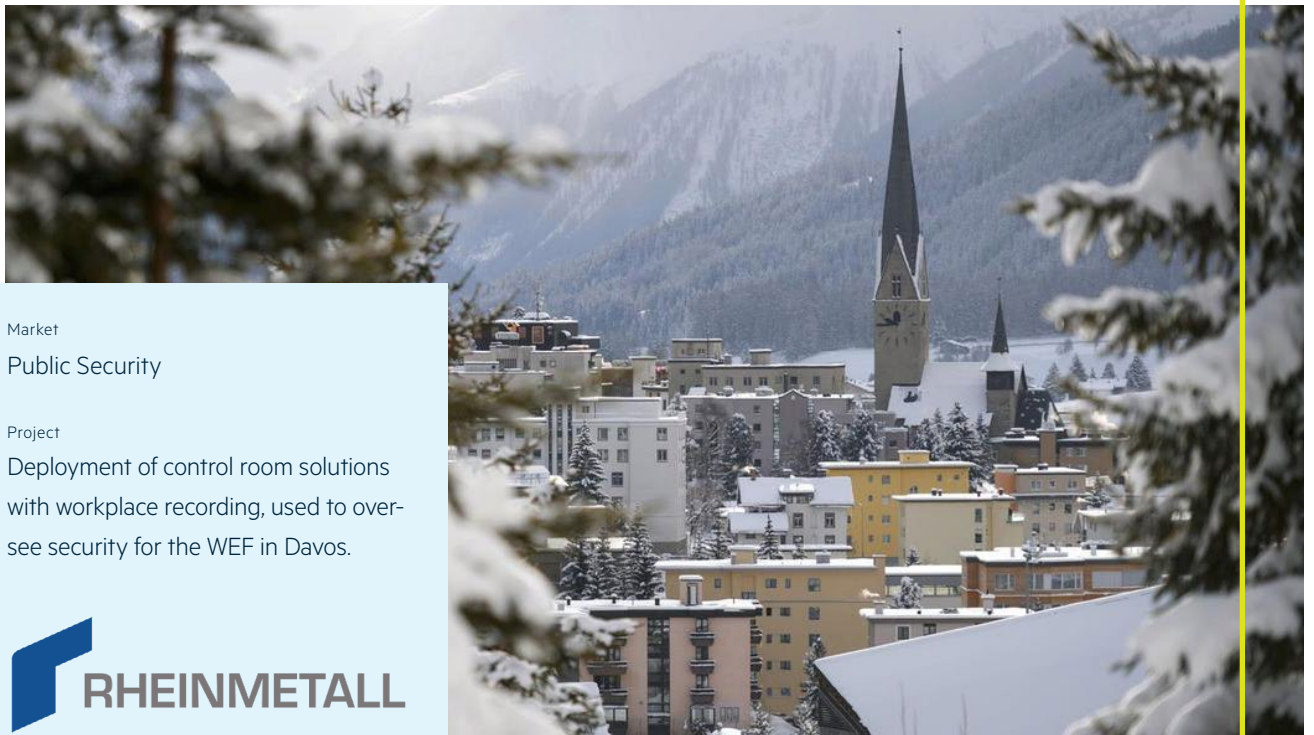


Case Study

# RHEINMETALL AIR DEFENCE AG

Zürich, Switzerland



Market  
Public Security

Project  
Deployment of control room solutions  
with workplace recording, used to over-  
see security for the WEF in Davos.





## Rheinmetall Defence AG

Rheinmetall Defence is one of the world's top suppliers of defence technology and security equipment. Headquartered in Düsseldorf and based in Germany, it has subsidiaries and offices in 21 other countries. Publicly traded on all German stock exchanges, Rheinmetall generated annual sales of €3,036 million in 2017 and employs some 11,232 staff around the globe.

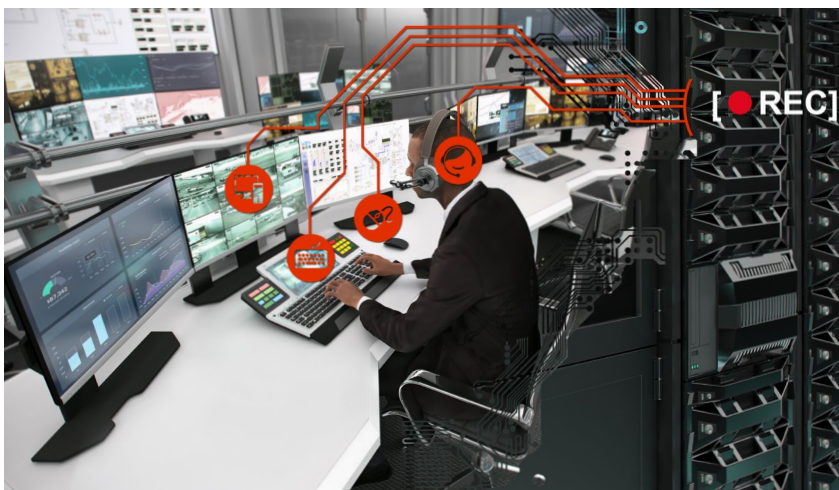
Rheinmetall is a longstanding partner of the armed forces of Switzerland, Germany, its NATO allies and other likeminded nations. Founded in 1889, its mission is to provide friendly forces with the best-possible protection in the areas of mobility, reconnaissance, management and effectiveness.

### Background

Rheinmetall supplies security systems to the Swiss Armed Forces, which provide the Canton of Graubünden with subsidiary support in ensuring overall security during the World Economic Forum (WEF) in Davos, Switzerland every year. The Swiss Armed Forces are responsible for ensuring air sovereignty. Airborne and ground-based systems are used for this purpose. The ground-based 35 mm anti-aircraft defense system makes it possible to launch aircraft as a last resort. This Rheinmetall air defence system is commanded from the Swiss Air Force Operations Centre. The Control Center deployed there is comprised of several control workplaces (Control Node 1) and one workplace for Chief Air Defense (Control Node 2). These workplaces are equipped with Workplace Recording (Evidence Capture). Outside the actual operations center there is another workplace where mission planning is carried out and mission sequences can be replayed.

### Workplace Recording is Evidence Capture

Workplace Recording, or Evidence Capture is a unique solution that records, replays and synchronizes data from desktop screens and video walls, keyboard clicks, mouse movements and voice traffic. This technology, which has long been used in the air traffic control industry, is now being deployed for mission-critical work-



Workplace recording for screen, mouse, keyboard and audio data



places in the public security sector. It is now possible to record, replicate and replay multimedia incidents for evidence capture, security investigations, process enhancements and training purposes. The application is easy to use and requires no additional specialists.

## The Solution

Rheinmetall Air Defence AG has deployed several fully integrated WEYTEC solutions for stationary and semi-mobile control centers. Each control room is equipped with a workplace recording system as well as an ultraFLEX miniPC, a multifunctional smartTOUCH keyboard and KVM-over-IP extenders.

Rheinmetall Air Defence AG implemented both screen and voice traffic recording to record and store digital activity at the operators' desks. Voice recording captures audio streams from sensors and effectors. Screen recording captures screen data at the operator workplaces in the control centers.

Each desk is equipped with a single high-resolution screen split to display multiple applications and information sources simultaneously. Applications include incident management and radio communications, dynamic and static video camera feed content from public areas around Davos and the airspace above Davos (Air Situation Display Application). The Davos airspace is restricted to WEF traffic throughout the event and is heavily frequented by helicopter traffic.

The unique workplace recording software from SkySoft ATM retrieves and synchronizes all the recorded data to replicate and replay incidents. The SkySoft algorithm provides state-of-the-art lossless compression of 25,000:1. The data is not altered.

## Facts & Figures per System

### Workplaces:

- Four operator positions each with one screen
- One Supervisor position with two screens and one smartTOUCH multifunctional keyboard

### Remote Solution:

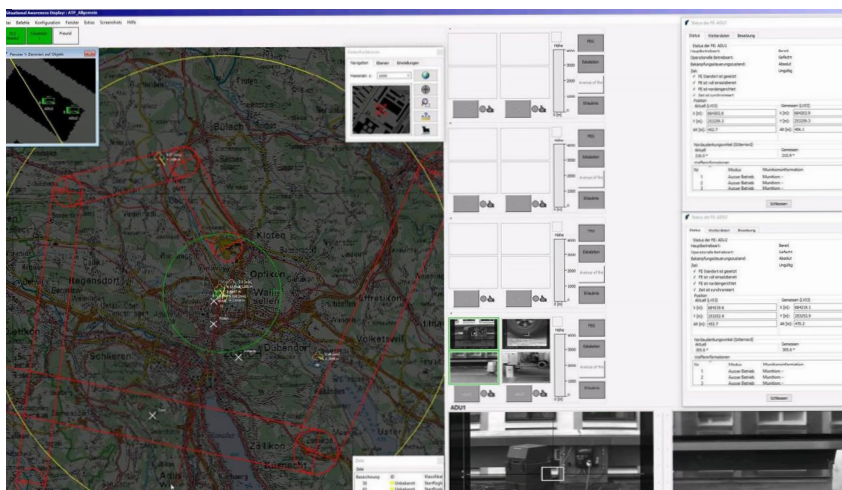
- IP Remote II
- Five Transmitters / Six Receivers

### Workplace Recording

- One ultraFLEX miniPC
- SkySoft Codec
- SkyRec software

### Customized Receiver Chassis:

- Complete with special fiber transmission connector cables for military use



Captured screen data



## Customized Desk Chassis

Rheinmetall also ordered unique receiver boxes for its operator and supervisor positions, which conform to military requirements and standards. The customized chassis feature direct connector interfaces (without break-out cables) for fiber transmission cables. WEYTEC designs and manufactures its solutions according to the highest standards of quality and workmanship in-house in Switzerland.



Customized Desk Chassis

## WEYTEC and SkySoft

WEYTEC and SkySoft have been collaborating for many years to develop and manufacture state-of-the-art workplace recording solutions.

SkySoft ATM, a subsidiary of SkyGuide, which is headquartered in Geneva, Switzerland, is one of the world's leading providers of the workplace recording solutions for Air Traffic Control (ATC) rooms. WEYTEC is the Original Equipment Manufacturer (OEM) for SkySoft's SkyRec BlackBox.

Workplace recording is fully compatible with new and existing WEYTEC control room solutions and requires minimal additional investments. A clear customer benefit is that WEYTEC IP Remote extenders cards substitute for external (additional) frame grabber cards, providing the same functionality and eliminating the need for extra hardware. This reduces costs and simplifies maintenance. Workplace recording is a powerful but easy and cost-effective add-on to WEYTEC control room solutions.

## Customer Quotation

According to Thomas Ruesch, IT Project Manager for the control room projects, "Your recording/replay solution operated by the Swiss Air Force works very well. We are very happy about that."