CASE STUDY

Enhancing public transport safety in Frankfurt: A unified approach

Verkehrsgesellschaft Frankfurt | *Germany*



Industry

- Transportation
- Security

Solutions

- Octave Coda Video, Octave I/CAD

Challenges

- Secure environment for 200 million-plus passengers
- Enhance video surveillance and operations control systems
- Improve incident coordination with police, fire and other emergency services

Results

- Fully integrated security operations control system with video, emergency call and dispatch capabilities
- Comprehensive situational awareness
- Significantly accelerated handling and investigation of incidents

Frankfurt, Germany's financial capital and transportation hub, serves as the home for numerous global institutions and a bustling transit system.

Stadtwerke Verkehrsgesellschaft Frankfurt am Main (VGF) operates the city's extensive underground and tram networks, transporting over 200 million passengers annually.

Safety, security and efficient incident management are paramount for VGF, so much so that it launched the "Service and Security – Renewal, Migration and Expansion" (SuS-EME) project to address evolving security needs and technological advancements. The goal was to enhance its video surveillance capabilities and operations control systems, ensuring comprehensive threat detection and emergency response management.

VGF required a solution that would improve incident coordination with police, fire services and other emergency responders, prompting significant upgrades to its command-and-control systems, including the implementation of Octave's advanced video management software, Octave Coda Video (formerly HxGN dC3 Video), industry-leading computer-aided dispatch (CAD) system and a mobile app. The project also aimed to introduce a modular system and incorporate future innovations, with Octave's VMS and CAD systems serving as key components in managing vast amounts of video data and optimizing dispatch operations.

Streamlined operations for enhanced public safety

The SuS-EME project included a comprehensive overhaul of VGF's control center. The VMS was integrated with VGF's extensive video surveillance network, managing and processing feeds from over 800 cameras. The CAD system, connected to SOS pillars across the subway and tram stations, allows for real-time communication with passengers in emergencies, with Coda Video delivering critical visual context through live video feeds. The use of the mobile application improves the connection between mobile emergency services and Service and Security because information can be exchanged bidirectionally in near real time.

"Thanks to the new operations control system, supported by Octave's VMS and CAD, we were able to significantly improve the management of incidents."

Felix Müller
Project Manager, VGF



The system also supports the generation of operational reports and includes a module for the statistical evaluation of operations and incident data.

VGF Project Manager Felix Müller explained the original implementation of the SuS-EME project, which was carried out under quite challenging circumstances.

"Due to the travel and contact restrictions caused by the COVID pandemic, we had to carry out the project virtually with online collaboration tools and video conferences," he said. "Above all, the virtual factory acceptance test was something special: the system integrator set up a control center in his premises and simulated all processes in the operational control system and in the video management system. The content of all screens was then transmitted in real time to the project team members. Thanks to the extraordinary commitment of everyone involved and the highly solution-oriented cooperation, we were able to complete the project on time, despite all the challenges."

The new system allows staff to view live video from emergency calls, detect real-time incidents and coordinate responses effectively.

Optimizing operations

The upgraded system seamlessly integrates command and control with Octave's VMS and CAD systems, both of which play crucial roles in handling and processing incident data. The VMS manages video feeds, providing comprehensive situational awareness, while the CAD system facilitates efficient incident management through streamlined workflows and automated processes.

This integration allows dispatchers to quickly access relevant information, coordinate responses and communicate effectively with security personnel and law enforcement.

Since implementation, the upgraded system has significantly improved VGF's ability to manage and respond to incidents. The integration of the CAD system and VMS has enhanced real-time assessment and coordination with emergency services, safeguarding passengers.

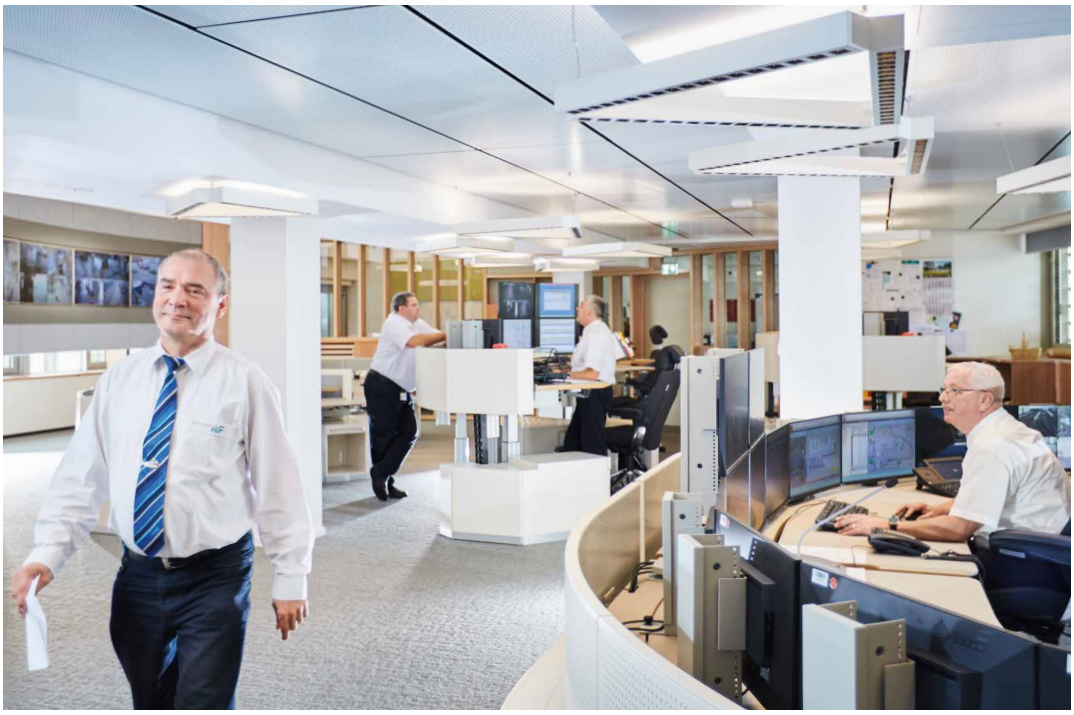
"Thanks to the new operations control system, supported by Octave's VMS and CAD, we were able to significantly improve the management of incidents," said Müller. "Most importantly, we have improved safety for the millions of passengers each year who use our services."

Plus, the system's scalability and modular infrastructure support future expansions, allowing VGF to continually adapt to evolving security needs and technological advancements.

Future-proof growth

Müller continued, "Beyond the original project, we have already added further properties and cameras to the video system. In further expansion stages, we expect a total of around 1,000 cameras in the medium term. Thanks to the open architecture, we can add new functions in the future – for example, intelligent video analysis to measure passenger flows."

Octave's VMS and CAD systems not only set a new standard for operational efficiency and incident management in Frankfurt's transit network, but also position VGF to proactively address future challenges. With ongoing expansions and the potential for intelligent video analysis, the system ensures the safety of millions of passengers today and tomorrow.



About Octave

Octave is a leader in enterprise software, turning data into decisive action and intelligence into your edge. Our software solves for and simplifies complexity, from the design and build to operations and protection of people, property and assets – for any scope, at any scale. For decades, we've partnered with customers to sharpen performance, elevate efficiency and amplify results. From factory floors to entire cities, our solutions are tuned to scale up what's possible from day one onward.

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