



CASE STUDY





Frankfurt Airport (FRA), operated by Fraport AG, is one of Europe's busiest aviation hubs, handling over 70 million passengers each year. Known for its scale and efficiency, FRA serves as a global gateway and a critical part of the continent's transport infrastructure. With passenger volumes continuing to grow, the airport has prioritized data-driven innovation to maintain excellence in operations and enhance the travel experience.



Challenge

Fraport needed a modern solution to optimize passenger flow, particularly at high-pressure areas like security and border control. While existing systems offered a baseline view, they lacked the real-time analytics and flexibility to proactively identify bottlenecks and make fast, informed decisions. Compliance with Germany's stringent GDPR regulations was also a non-negotiable requirement. In 2023, Fraport's Digital Factory launched its second Open Pitch Day to identify innovative technologies that could meet these challenges head-on...



Solution

AeroCloud deployed Optic, computer vision driven passenger flow monitoring solution, as part of a pilot initiative at Frankfurt Airport. The technology integrates with existing CCTV infrastructure to anonymously track passenger flow in real time, without requiring any additional hardware or invasive data collection. Optic provides:



Real-time analytics on crowd density, wait times, and passenger throughput Predictive insights to forecast congestion and allocate resources efficiently **Seamless integration** with FRA's existing systems

Full GDPR compliance through advanced anonymization protocols

"Winning Fraport's Open Pitch Day gave us an incredible platform to showcase how AeroCloud Optic can deliver measurable improvements. Working alongside the Aviation Passenger Process team at FRA has been a true partnership." - **AeroCloud**

Looking to enhance your airport's passenger insights?

Improve flow, boost satisfaction, and stay compliant with AeroCloud.

aerocloudsystems.com/FRA





Operational Efficiency

key pinch points like security and border control allowed for faster smarter decision-making across the airport.



Cost-Effective Deployment

By leveraging existing CCTV infrastructure, AeroCloud Optic offered a lower total cost of ownership compared to legacy providers.



GDPR-First Design

Built for sensitive markets, AeroCloud Optic met Germany's toughest data protection requirements from day one.



Speed to Insight

Rapid installation and minimal operational disruption enabled FRA to begin generating value within days.

Outcome

The pilot demonstrated clear improvements in resource allocation and passenger throughput.

Compared to the incumbent solution (Xovis), AeroCloud Optic delivered advantages in both cost and speed of implementation, setting a new standard for passenger tracking at FRA. The success of the Minimum Viable Product (MVP) phase has positioned AeroCloud as a trusted innovation partner for future projects, including the highly anticipated 2026 terminal renovations.

Impact

This collaboration not only validated AeroCloud's vision for smarter airport operations but also underscored Fraport's commitment to embracing cutting-edge, GDPR-compliant technology. As AeroCloud continues to scale globally, the Frankfurt pilot stands as a benchmark for what's possible when innovation meets operational excellence.

Looking to revolutionise your airport management?



Streamline operations, enhance passenger experience, and maximise revenue with AeroCloud.