

Empowering Amritsar Airport CCTV

with Industrial-Grade
Point-to-Point Wireless
Radios



CONNECTING YOUR WORLD

Introduction

Amritsar Airport required reliable wireless transmission solutions for airports to ensure continuous CCTV surveillance and network connectivity across expansive operational areas including the tarmac, runway, and office spaces. Wavesight's industrial wireless solutions, featuring advanced point-to-point and point-to-multipoint wireless systems, delivered secure, resilient airport communication networks that overcome environmental challenges while supporting high-bandwidth, low-latency airport data communication solutions.

The Challenge

- Provide scalable wireless transmission solutions for airports to connect CCTV cameras and Wi-Fi access points dispersed over critical zones such as the runway, tarmac, and administrative buildings.
- Replace or supplement fiber optic infrastructure with a robust wireless network capable of handling high-speed video and data feeds under signal interference and complex radio environments typical of airports.
- Deliver resilient railway-like communication infrastructure that supports automatic failover, ensuring zero downtime in airport surveillance and operations.

The Wavesight Solution

- **Technology:** Deployment of industrial-grade point-to-point wireless systems and point-to-multipoint radios purpose-built for airports and aviation facilities. These systems facilitate seamless, real-time airport CCTV network connectivity and data transmission.
- **Network Architecture:** The wireless network securely connects remote surveillance assets to operational hubs, enabling continuous train-to-trackside style video streaming and real-time data communication across the airport footprint.
- **Performance:** The solution supports high-speed wireless transmission for security and operational systems with built-in redundancy, automatic failover, and minimal latency to guarantee uninterrupted monitoring.
- **Deployment Partner:** Airports Authority of India (AAI) awarded the project to M/s Infosoft Digital Design & Services Pvt Ltd, who expertly integrated Wavesight's industrial wireless technologies tailored for the airport environment.

Results & Benefits

- Achieved a resilient airport communication network that delivers uninterrupted, high-quality CCTV video feeds and access point connectivity—even across dispersed, high-risk airport areas.
- Enhanced airport asset monitoring and security management, allowing for real-time operational oversight and improved incident response speeds.
- Enabled a scalable wireless infrastructure that serves as a fiber optic alternative for airports, supporting future airport network infrastructure modernization plans with minimal physical disruptions.
- Reduced maintenance and operational costs through automated monitoring capabilities and robust network design suited for complex airport environments.

Conclusion

This deployment of Wavesight's industrial wireless transmission solutions at Amritsar Airport sets a new benchmark in airport communication networks by enabling secure, scalable, and resilient wireless connectivity. The project demonstrates Wavesight's leadership in providing airport data communication solutions that facilitate advanced surveillance, operational efficiency, and future-ready infrastructure enhancements for airports across India and beyond.