



Securing Perimeter, Terminal and Airside Operations

Airports face unprecedented challenges in today's complex threat landscape, ranging from sophisticated terrorism and cargo theft to perimeter breaches and passenger flow violations. With expansive perimeters often spanning hundreds of acres—encompassing runways, terminals, cargo facilities, and support infrastructure—airports present uniquely difficult security environments to monitor and protect. As critical economic hubs moving millions of people and billions in cargo daily, airports must strike a delicate balance: maintaining rigorous security without disrupting operational efficiency.

Senstar's proven security solutions, currently protecting hundreds of civilian, cargo and military airports globally, address these complex challenges through integrated perimeter protection, video surveillance, and centralized monitoring systems. By unifying advanced sensor technologies within a Common Operating Platform, Senstar empowers airport security and operations teams to quickly detect, evaluate, and respond to potential threats—protecting passengers, personnel, aircraft, and freight while minimizing operational disruptions and ensuring that global commerce and travel continue without interruption.

LEARN ABOUT SENSTAR SOLUTIONS FOR



Fortifying the air operations area and terminals



Maintaining operational security and safety



Consolidating security management and data intelligence under a common operating platform

Fortifying the Air Operations Area

Securing an airport's Air Operations Area (AOA) demands a comprehensive, multi-layered security strategy. Senstar delivers integrated solutions that fortify every vulnerable point and can link intrusions and non-threat events to specific cameras and workflows at the command and control center.

Security Function	Requirement	Solution	Description	
Perimeter intrusion detection (fence line and sensitive areas)	Detect and locate intrusions (cut, climb, or bypass fence).	FiberPatrol	Senstar's fiber optic sensors are non-conductive, lightning immune, and intrinsically safe in explosive environments, making them highly suitable for fence/wall applications in any environment. Field-proven environmental rejection algorithms ensure the highest level of detection while minimizing nuisance alarms. Each FP1150 sensor unit supports perimeters up to 80 km.	
	Avoid nuisance alarms generated by weather and small animals.	FlexZone	FlexZone (guided RF) is highly cost-effective for shorter perimeters. Field-proven environmental rejection algorithms ensure the highest level of detection while minimizing nuisance alarms. Each processor supports up to 600 m (1,968 ft)	
	High-risk locations such as fuel depots, substations or hangars may demand specialized security.		Senstar MultiSensor	Embedded sensor fusion engine provides the highest level of detection while eliminating nuisance alarms.
			Smart 3D LiDAR	Track activity inside/outside sensitive areas. Precise polygonal detection zones enable protection of complex environments while volumetric detection avoids nuisance alarms generated by background movement, weather, and small animals.
			Sensor Fusion	Synthesize data from sensors and video analytics to eliminate nuisance alarms in high-threat or challenging zones.
			Video Analytics	Senstar's AI-powered analytics excel at detecting and classifying people and vehicles and support both visible and thermal cameras.
Perimeter lighting	Enhance assessment capability of surveillance cameras and offer active deterrent capabilities.	Senstar LM100	For sites without perimeter lighting, the Senstar LM100 combines intrusion detection sensors with perimeter lighting in one product, providing a dual-purpose detection and deterrent solution. Dim, instant-on, and strobe functions enable active deterrent capabilities. For areas where light pollution is a concern, the luminaires are DarkSky compliant.	
Area coverage	Detect and track activity across large areas, under all weather conditions	Senstar TC200 Thermal Camera	With a 24/27° field of view (FOV) optimized for large area coverage, the TC200 uses AI-powered bi-spectrum analytics to detect human activity in complete darkness, heavy snow, or dense fog conditions.	
	Detect activity at critical locations such as security checkpoint exits.	Smart 3D LiDAR	Precision zones combined with object size detection and direction tracking ensure that only abnormal activity is detected.	
Gate protection and control	Access points to the AOA represent critical control zones where credential verification, vehicle inspection, and real-time monitoring must work seamlessly to prevent unauthorized entry.	Wireless Gate Sensor	Protect closed sliding gates without cable interference.	
		Smart 3D LiDAR	Detect activity at gate areas and trigger workflows when gates are either open or closed.	
		Video analytics	Detect activity and trigger specific workflows (such as gate open) via automatic license plate recognition (ALPR).	
		Senstar Symphony	Control gate operation via Senstar Symphony's access control (AC) module or integrated third-party system.	
Hangars	Protect high-value facilities housing aircraft and equipment.	UltraWave	Secure large hangar bay doors with Senstar's bi-static microwave solution, which generates a large, invisible detection field.	
		Smart 3D LiDAR	Define multiple detection zones at entrances, interiors, and exteriors.	
		Senstar MultiSensor	Protect entrances (open or closed) from unauthorized entry..	
		FiberPatrol/FlexZone	Detect forced entry through the building's walls or roof.	
Aircraft parking	Detect intrusions into static aircraft parking areas. Minimize above-ground equipment.	OmniTrax	A popular solution for military airports, OmniTrax is a buried covert sensor that generates an invisible detection field, ideal for monitoring sensitive areas within the apron that are not fenced in.	
		Smart 3D LiDAR	Create three-dimensional detection zone around each aircraft.	
Airfield safety	Monitor aircraft/vehicle movement from taxiway hold points to active runway in combination with traditional stopbar safety systems as well as entering/exiting taxiways	Smart 3D LiDAR	Create 3-dimensional detection zones at runway hold points or taxiway entrances/exits.	

Protect hangars with high-value aircraft and equipment

via a variety of sensors, including microwaves, LiDAR, fiber optic, and video analytics.

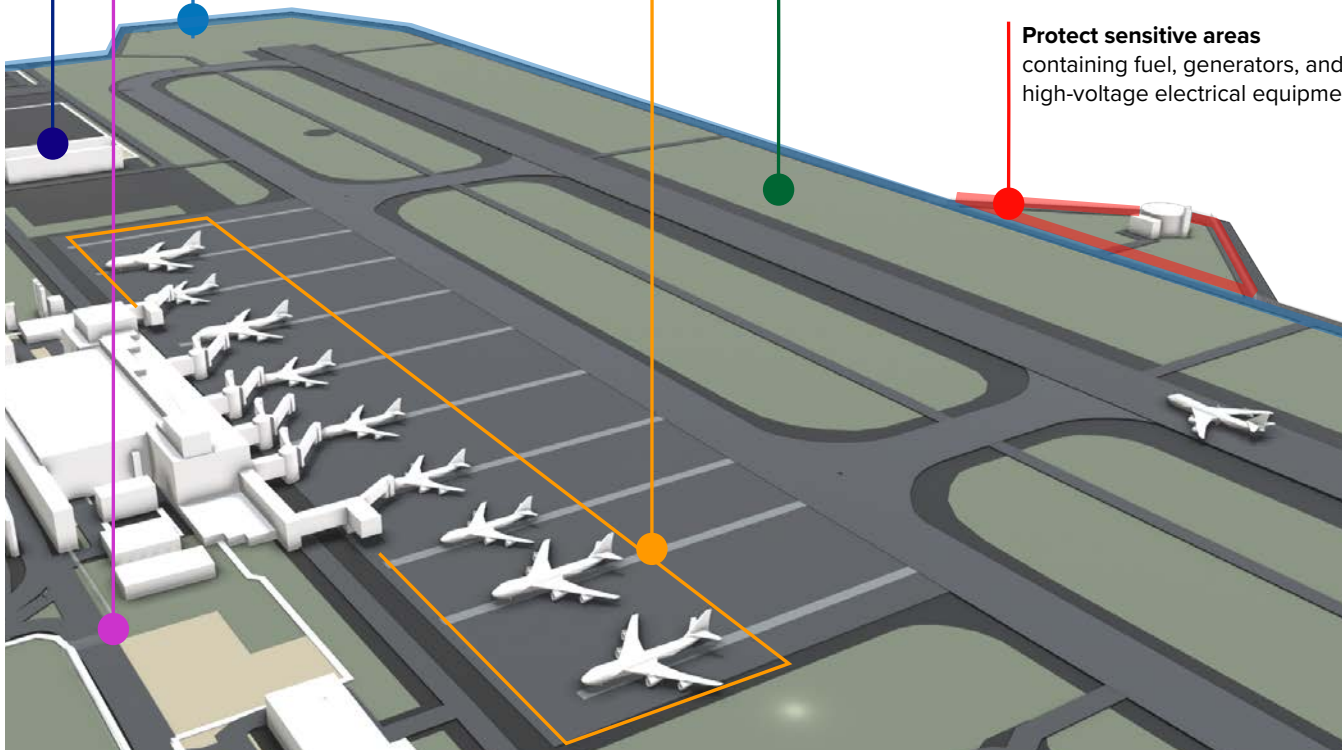
Secure gates via a range of gate and entrance options designed to detect unauthorized activity while enabling the efficient movement of authorized people and vehicles.

Transform fences into “smart fences”, capable of detecting and locating intrusions across large distances.

Monitor aircraft parking via buried volumetric sensors or post-mounted LiDAR

Monitor large open areas via thermal cameras and AI-powered video analytics.

Protect sensitive areas containing fuel, generators, and high-voltage electrical equipment.



MIAMI INTERNATIONAL AIRPORT (MIA)

Miami International Airport (MIA) enhanced the security of its 13-mile perimeter by installing Senstar’s FiberPatrol FP1150, a fiber-optic intrusion detection system. The evaluation team decided on FiberPatrol for its:

- Proven effectiveness in large-scale, high-risk, environmentally challenged applications like airports
- Exceptional value in terms of installation and maintenance costs
- Ability to integrate to MIA’s chosen security management system

INTERNATIONAL AIRPORT (EUROPE)

A European airport secured its perimeter by integrating FiberPatrol with the Senstar Symphony Common Operating Platform to combat recurring intrusion attempts. When an intruder started scaling the fence, FiberPatrol pinpointed the intrusion and triggered a PTZ camera to the location. The system provided security staff with a real-time visuals, allowing them to intercept the individual at the perimeter and mitigate airfield risk.



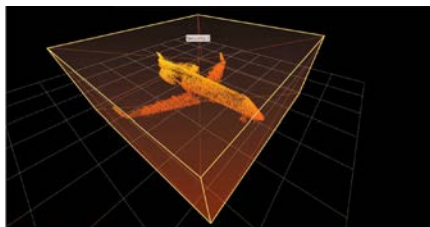
PTZ surveillance footage of an unauthorized intrusion event

Operational security and safety

Beyond perimeter protection, Senstar's intelligent security solutions enhance day-to-day airport operations by providing real-time visibility and awareness across critical operational areas. Our integrated video analytics and sensor technologies help airport teams monitor operations, including aircraft positioning at gates, detecting unauthorized access to restricted zones, and adapting to changes in traffic flow patterns. By consolidating these operational security functions into a single, user-friendly platform, Senstar enables airport personnel to quickly identify potential safety issues, respond to incidents more effectively, and maintain the smooth flow of aircraft, passengers, and freight—ultimately reducing operational risks while improving efficiency across the entire airport environment.

AIRCRAFT PARK POSITION

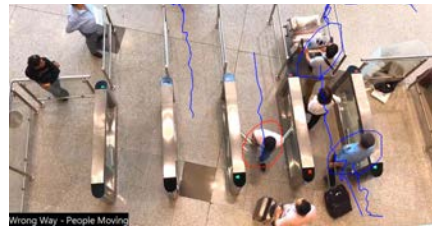
LiDAR provides airports with precise, three-dimensional monitoring capabilities for aircraft positioning on the tarmac and apron. By continuously scanning designated parking zones, LiDAR sensors create spatial maps that detect whether aircraft are properly positioned within their assigned stands, identify any unauthorized movement on the airfield, and alert operators to potential safety violations such as wing-tip proximity issues or encroachment into restricted zones. This real-time positional awareness reduces the risk of costly or deadly incursions and improves overall ramp safety without requiring manual visual inspections.



3D real-time imaging with pinpoint accuracy enables precision aircraft monitoring

MONITOR PASSENGER ACTIVITY

Senstar's passenger monitoring solutions leverage both 3D LiDAR technology and intelligent video analytics to optimize airport operations and enhance safety. Wrong-way detection can immediately alert security when passengers re-enter restricted zones. People counting and capacity estimation capabilities enable airport operators to monitor occupancy levels at waiting areas or checkpoints. Dwell time analytics and left object detection identify unusual behavior or bottlenecks, allowing staff to respond proactively to security and operational issues.



Detect "wrong-way" passenger movement to ensure security of customs and land/air-side demarcation points.

MONITOR CARGO

Senstar's OCR-enabled video analytics automatically captures and reads ULD (Unit Load Device) container numbers as they move through airport freight facilities. The system intelligently links captured alphanumeric data directly to corresponding video footage, creating a comprehensive digital record that combines visual verification with container information for complete chain-of-custody documentation. Through integration with existing logistics management and warehouse systems, this real-time data synchronization enables automated cargo tracking, instant manifest updates, and exception alerts when containers deviate from expected routes or schedules.



OCR video analytics are used to link cargo metadata to video as part of integrated logistics tracking systems.

MUNICH INTERNATIONAL AIRPORT (MUC)

Munich International Airport (MUC), often called Europe's Best Airport, implemented Senstar's comprehensive security infrastructure to protect one of Europe's busiest aviation hubs.

At the heart of this deployment is the Senstar Symphony Common Operating Platform, which serves as the central nervous system for the airport's security operations.

Symphony manages hundreds of cameras strategically positioned throughout terminals, baggage handling areas, airside operations zones. It supports operations by providing personnel with comprehensive visual coverage and situational awareness. The platform's advanced video analytics enable automated detection of suspicious behaviors, unattended objects, and unauthorized access to restricted areas, while its intuitive interface allows operators to quickly search archived footage, manage live video feeds, and coordinate rapid responses to security incidents.

The open platform ensures compatibility with diverse camera manufacturers and perimeter intrusion detection sensors, giving Munich the flexibility to scale their integrated video and security management systems while maintaining the highest security standards.



Unified Security Under a Common Operating Platform

The Senstar Symphony™ Common Operating Platform is a modular solution for video management, video analytics, security management, access control and data intelligence. Modules can be used individually, added when needed, or combined as a complete integrated solution. All managed devices report to a shared rules and alarms management system, enabling operators to perform site security or operational functions from a ‘single pane of glass’.

INTEGRATED INCIDENT AND ALARM MANAGEMENT

As a full-featured security management system (SMS), Senstar Symphony delivers a consolidated view of incidents from any source, including intrusion sensors, video analytics, access control, other security devices and general-purpose I/O. Its visual, map-based interface provides a streamlined user experience for operators handling everything from daily routines to crisis situations.

- Streamlined map-centric interface
- Complete sensor integration
- Customizable alarm and event management workflows

UNIFIED ACCESS CONTROL

As a complete access control system, Senstar Symphony supports industry standard hardware and fully integrates access control events with video and alarm management.

- Integrated operator interface
- Cardholder histories
- Access zones, levels and schedules
- Full-featured administration client
- Unified, seamless integration

PRIVACY PROTECTION

Senstar’s comprehensive video privacy controls are specifically designed to help airports meet stringent GDPR requirements and other global privacy regulations. The platform offers granular privacy masking capabilities that allow operators to obscure sensitive areas, ensuring personal privacy is protected without compromising overall surveillance coverage. Symphony’s role-based access controls and detailed audit logging ensure that only authorized personnel can view specific camera feeds or recorded footage, creating a transparent chain of custody and accountability that satisfies regulatory compliance requirements.

CYBERSECURITY

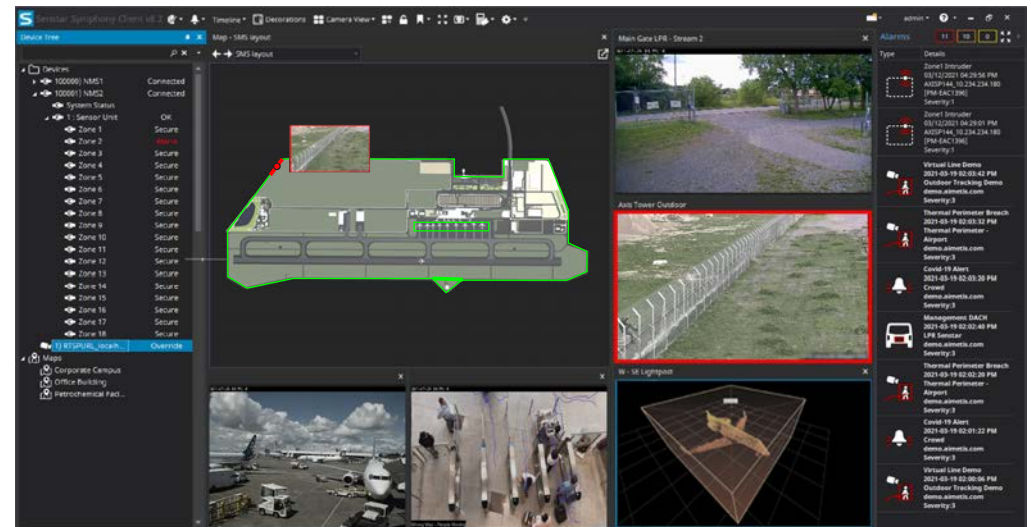
Senstar products are designed with cybersecurity in mind to protect critical airport infrastructure and sensitive operational data from evolving cyber threats. The company’s security solutions are developed and maintained in compliance with ISO/IEC 27001, the internationally recognized standard for information security management systems, ensuring robust protection of confidential information and systematic risk management throughout the product lifecycle.

Senstar implements multiple layers of defense including encrypted data transmission, secure authentication protocols, security audits, and vulnerability assessments to safeguard video surveillance systems, access control networks, and integrated security platforms from unauthorized access and cyberattacks.

CAPTURE OPERATIONAL INTELLIGENCE

By combining video surveillance with analytics, security sensors, and data from logistics systems, organizations can monitor operations, detect abnormalities, and implement corrective actions.

- Monitor on-site vehicles
- Link video to process events
- Monitor operations
- Empower employees



The Senstar Symphony Common Operating Platform is a highly customizable, full-featured, enterprise-grade video and security management system (VMS/SMS) capable of meeting the C&C demands of the world’s busiest airports.