Cyber Safe and Secure Airports

Simplify, secure, sustain with integrated cyber security solutions and services
Airports are increasingly adopting the latest technologies and digital systems to manage their operations better, enhance the passenger experience, and improve overall service quality. Given that airports are critical components of the national infrastructure, they are also a prime target for cyber-attacks. With hundreds of interconnected systems (internal and external), countless networks and endpoints, and varied user bases (employees, contractors, ecosystem stakeholders, and guests), airports present a huge surface area for cyber-attacks. Moreover, the COVID-19 pandemic has necessitated a heightened cybersecurity framework to prevent against threats from phishing, remote working, and hacking. Airports today require integrated cybersecurity solutions and services that span their entire ICT ecosystem to mitigate and eliminate increasing risks of cyber-attacks.

Ransomware disables Cleveland airport’s email system, information screens.

Atlanta airport shuts down Wi-Fi following cyber-attack on city

Israeli airports fend off three million attacks a day.

Cyber-attack led to blank information screens at Bristol airport (UK).

New cyber-attacks are hitting airport and metro systems in Ukraine.

How should airports design their security framework?

Airports have a diverse and complex technology infrastructure: internal and external facing applications, third-party applications, IoT and SCADA systems, plus multiple network configurations, including dedicated security networks, mobile, and radio networks to name a few. Airports need comprehensive security interventions for each of these elements. Focused security controls ensure every system in the airport has the right protection level. Wipro has designed a holistic and comprehensive framework that identifies the different cybersecurity controls needed at each layer of the airport stack and corporate functions.
Figure 1: Wipro's cybersecurity framework for airports
Our solutions and offerings for airports

Wipro is a global leader in cybersecurity with a diverse set of service and solution offerings. By combining cybersecurity expertise and deep understanding of the airport domain, Wipro has identified specific solutions for each of the controls defined in the cybersecurity framework (Figure 1) to address airport challenges.

Wipro's holistic solutions address risks, vulnerabilities, and non-compliance to policies across airside, terminal, and landside operations.

They help airport clients achieve, and maintain, the desired state of cybersecurity. Depending on the current state of the airport, the Wipro approach is to build a roadmap that balances the desired target state, cost, time, and the expected security posture.

Wipro's security services can be delivered through a combination of onsite and centralized cyber defense centers.

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**Figure 2: Wipro’s solutions for enabling each cybersecurity control**

- Data security architecture, data protection
- Privacy by design
- Data security governance
- Data obfuscation & tokenization
- Managed PKI and encryption
- Identity governance & administration
- Password-less & frictionless authentication
- PIM /PAM
- Online identity fraud detection
- Digital identity proofing & validation
- Antivirus, anti malware
- Data leak prevention
- File integrity monitoring
- Host intrusion prevention system
- Encryption
- Cloud native security controls and postures management
- Containers, microservices and serverless security
- Zero trust and microsegmentation
- SaaS security
- Cloud workload protection
- IT risk and control design assessments
- Third-party risk management
- IT risk office management
- ERP security
- Regulatory compliance
- SIEM /SOC SOAR
- Threat intelligence, incident response and deception
- Application security, threat modelling, secure code reviews
- Threat life cycle management
- DevSecOps
- Security architecture network segmentation assessment & design
- End point protection
- Zero trust network
- Software defined security architecture
- Advance threat protection & App. control
- Device security
- IT-OT integration risk assessment
- IT-OT integrated SOC
- OT security design
- SB 327 compliance
- OT vulnerability management, OT anomaly detection
Providing end-to-end IT security services at a large North American airport

For one of the largest airports in North America – serving over 45 million passengers each year – Wipro designed and delivered an integrated IT security solution to significantly improve the facility’s security operations. The solution addressed a huge number of security needs: IT risk and compliance, IT disaster recovery support, infrastructure security (network and endpoint), vulnerability management, security monitoring, security orchestration, incident management and interactive investigation through security operations platform, and continuous monitoring of the external digital profile across the clear, deep, and dark web through a threat intelligence platform and security information and event management. Wipro’s Security Management Center (SMC) drives the security operations.

With Wipro services, the airport saw improved effectiveness of security tools with an upgraded technology landscape. Wipro ensured policy compliance across the landscape through complete asset discovery and stringent enforcement of security base-lining standards.

Key takeaways

Secure airside, landside, and terminal operations through customized security controls and solutions for the airport and aviation industry.

Benefits and features

- Improved security posture for the airport
- Single pane of glass view: Wipro Security Management Center
- Institutionalized Security Operations Center: Wipro’s Cyber Defense Centers
- Predictive, responsive and integrated threat intelligence and management
- IT risk governance and compliance
- Vulnerability assessment and countermeasures management
- Prevention of service interruption, improved business continuity
- Cost savings and ROI: Security as-a-Service

Case study

Secure airside, landside, and terminal operations through customized security controls and solutions for the airport and aviation industry.

End to end integrated cybersecurity solutions covering IT, OT & IoT across systems and functions

Simplified legal and regulatory compliance, with real-time visibility into airport security posture

Lower business risks, increased business continuity, data and critical system protection through efficient response and recovery
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