



WAISL Launches State-of-the-Art Digital Twin-Powered Integrated Airport Operations Command Centre (APOC) Powered by AWS to Transform Airport Operations and Passenger Experience

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WAISL pioneers Total Airport Management solution on AWS, establishing itself as a leader in digital innovation within the global aviation industry; aims to expand the solution within India and internationally in 2025 and beyond

New Delhi — December 03, 2024— Amazon Web Services (AWS) India Private Limited*, an Amazon.com company, today announced that WAISL Limited, a leader in digital transformation services across industries and with a core focus on aviation, has developed a digital twin-powered integrated Airport Operations Command Center (APOC), on the world's leading cloud. WAISL built the solution on AWS to significantly improve operational efficiency for airports and enhance passenger experiences using digital twins (virtual representations of an airport's physical objects, systems, or processes), artificial intelligence (AI), machine learning (ML), video and data analytics, and computer vision. WAISL plans to go live with this solution in a leading large Indian airport within the next few weeks and *launch internationally* in 2025 and beyond.

Airport congestion continues to impact airline on-time performance in India, as almost [80 million travellers took to the skies](#) in the first half of 2024. Functioning like a central nervous system, the solution will serve as a central hub for real-time monitoring, coordination, and management of airport operations, covering activities from curb to gate, including check-in, security, and traffic control for passengers, vehicles, and aircrafts. It will provide real-time updates on flight details, wait times, gate changes, baggage status, and personalized suggestions to passengers on nearby restaurants and duty-free offers. Simultaneously, it will deliver real-time operational insights to airports, airlines, and ground-handling personnel. These insights will be delivered by sourcing, monitoring, and analysing data from all platforms within the airport ecosystem.

The WAISL digital twin-powered integrated APOC integrates data from over 40 different systems, addresses 250+ use cases, and tracks 100+ performance indicators, offering predictive and prescriptive intelligence, enabling capabilities such as footfall predictions and prescribed resource planning using advanced AI and ML algorithms embedded within the solution.

*"At WAISL, we aim to set a new benchmark for airports worldwide. We don't just innovate; we transform what's possible. In the digital age, transformative impact stems not from technology alone but from its bold, strategic application to complex operational challenges. This is where WAISL's digital twin-powered integrated Airport Operations Command Center excels. It's a true technological enabler to drive operational efficiency and digital transformation in aviation", said **Rishi Mehta, President and CEO of WAISL Limited**. "Through industry leaders like AWS, we aim to make airports smarter, safer, and more seamless for enhanced passenger experiences."*

*"The air travel industry is making a strong comeback, and companies like WAISL are harnessing cloud, analytics, and AI technologies to enable airport operators address surging passenger demand more effectively," said **Pankaj Gupta, Leader – Public Sector, AWS India and South Asia**. "Airport data is vast, and WAISL has developed a solution that makes it easy to analyse such data, and harness it effectively, relying on AWS for resiliency, scalability, security, and low latency. We look forward to supporting WAISL to accelerate innovation in air travel across India and beyond."*

Cloud and AI-Powered Operations Hub

The digital twin-powered APOC will enable airports to integrate real-time situational awareness, predictive analytics, and the needed AI/ML capabilities to help prevent delays, overcrowding, and inefficiencies in resource allocation and optimize turnaround management.

To develop the APOC solution, WAISL used a range of AWS services providing AI, ML, and the Internet of Things (IoT) capabilities, enabling to monitor and manage end-to-end airport operations. For example, the APOC can predict demand and potential disruptions by using Amazon SageMaker, a fully managed service to build, train, and deploy AI/ML models. Trained on historical and real-time data across an airport's operations, the WAISL digital twin-powered APOC can optimize staffing and equipment deployment from check-in counters to security lanes and boarding gates.

This digital twin-powered APOC solution can monitor passenger flow, security checkpoints, and terminal areas using feed from closed circuit television (CCTV) cameras. Amazon MSK facilitates the flow of CCTV video footage to the solution in real-time while providing improved data redundancy during disruptions by replicating data securely across multiple AWS Availability Zones (AZ) within the AWS Asia Pacific Regions in India. Using an encrypted copy of the data stored in another AZ ensures uninterrupted service and passenger safety. AWS Regions ensure a secure, compliant, and scalable cloud environment at high availability and low latency that aligns with aviation industry regulations.

The digital twin-powered APOC solution also uses Amazon EKS to distribute workloads across available resources during peak travel periods. For example, during severe weather events that cause multiple flight changes, Amazon EKS can allocate more processing power to rebooking systems and customer service applications.

About Amazon Web Services

Since 2006, Amazon Web Services has been the world's most comprehensive and broadly adopted cloud. AWS has been continually expanding its services to support virtually any workload, and it now has more than 240 fully featured services for compute, storage, databases, networking, analytics, machine learning and artificial intelligence (AI), Internet of Things (IoT), mobile, security, hybrid, media, and application development, deployment, and management from 108 Availability Zones within 34 geographic regions, with announced plans for 18 more Availability Zones and six more AWS Regions in Mexico, New Zealand, the Kingdom of Saudi Arabia, Taiwan, Thailand, and the AWS European Sovereign Cloud. Millions of customers—including the fastest-growing startups, largest enterprises, and leading government agencies—trust AWS to power their infrastructure, become more agile, and lower costs. To learn more about AWS, visit aws.amazon.com.

***About Amazon Web Services (AWS) India Private Limited**

AWS India Private Limited undertakes the resale and marketing of AWS Cloud services in India.

About WAISL

At WAISL, we aim to streamline how enterprises and industries operate through technology. We implement and integrate technologies that enhance efficiency and transform processes from airports and smart cities to energy and hospitality. Our solutions—spanning biometric systems, digital twins, integrated command and control centres, cyber security/sustainability suites, predictive data-driven insights, etc. — work together seamlessly to deliver more innovative, efficient, and intuitive experiences, elevating business outcomes.