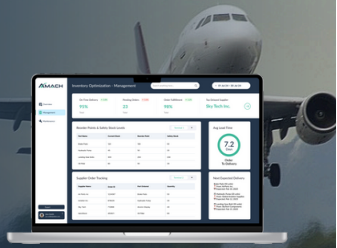
AMACH | aws

Amach's AI Driven Inventory Optimization for Airlines

Enhancing operational efficiency, reducing costs, and ensuring parts availability through intelligent, cloud-based inventory management powered by predictive analytics and automation.



Problem Statement

Airline inventory management is complex, involving regulations and varied models. Both low-cost and legacy carriers face the challenge of balancing availability and cost. Fragmented systems and manual processes drive up costs and inefficiencies. An AI-driven solution is needed to automate, predict, and optimize airline inventory.

Key Issues:

	Problem	Solution
Unpredictable Demand for Spare Parts	Maintenance demands fluctuate due to seasonal schedules, route changes, and unexpected repairs.	AI-driven demand forecasting uses historical data and real-time inputs to maintain optimal inventory levels and reduce aircraft downtime.
Lack of Real-Time Inventory Visibility	Inventory is often siloed across locations and systems, limiting real-time insight.	Cloud-connected IoT and AI platforms offer real-time visibility into inventory status, movement, and condition.
Manual Stock Management & Replenishment	Manual inventory processes cause delays, errors, and overstocking	Automated replenishment systems use predictive analytics to trigger timely restocking with minimal human intervention.
Underutilized Inventory Data	Airlines collect data but often don't apply it to decision-making or optimization.	Turn raw data into actionable insights through business intelligence and predictive modeling.
Complex Supply Chains & Regulatory Demands	Coordinating multiple suppliers and complying with maintenance regulations adds complexity.	AI supports supplier performance tracking, automated documentation, & regulatory compliance management.
Cultural Resistance & Skill Gaps	Teams may resist new systems, and internal AI skills are often limited.	Support change management through tailored apps (like PowerApps), intuitive tools, and strategic vendor partnerships.

Solution Overview

AI-Enhanced Cloud Inventory Platform

Amach helps airlines deploy AI-powered inventory platforms integrated with cloud-based tools and third-party solutions to drive forecasting accuracy, automation, and real-time control.

Predictive Analytics and Demand Forecasting
Plan more accurately across fleets, routes, and service intervals with data-backed forecasting models.

Automated Stock Replenishment & Vendor Integration
Smart reordering rules ensure stock is replenished efficiently and cost-effectively, integrated with supplier platforms.

Real-Time Data Capture and Visibility
Crew and ground staff use mobile tools (like PowerApps) to log inventory movement, improving tracking and accountability.

Third-Party System Integration
Seamless integration with systems like Zebra Technologies, Clear Spider, Llamasoft, and Salesforce for an agile, modular ecosystem.

Results & Benefits

Greater Forecast Accuracy for Spare Parts
Reduces risk of downtime by ensuring critical components are in stock when needed.

Operational Cost Reduction
Minimizes overstocking, avoids emergency orders, cuts holding costs—especially on high-value parts.

Improved Efficiency and Automation
Automates repetitive tasks, freeing up teams for higher-impact work and reducing errors.

Enhanced Supply Chain Visibility
Enables tighter collaboration with suppliers and real-time insight into delivery timelines and stock levels.

Regulatory Compliance Readiness
Supports accurate reporting and automated audit trails for MRO compliance.

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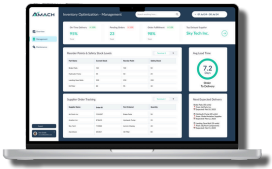

Inventory Optimization Dashboard

Inventory Optimization Dashboard

Ready To Learn More?

Streamline your airline's inventory performance with Amach and AI-driven optimization. Reduce waste, ensure availability, and cut costs with smart, cloud-based spare parts management

Contact Us

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