

AI-Driven Passenger Intelligence Improving Customer Satisfaction by 28%

Testimonial

“KPI Partners helped us transform fragmented passenger data into actionable intelligence. We now proactively resolve passenger disruptions before they escalate, dramatically improving satisfaction and operational agility.”

— VP, Customer Experience
Global Full-Service Airline

Client

A global airline operating 1,200+ daily flights across 60+ destinations, serving over 35 million passengers annually.

Overview

Flight delays, missed connections, and baggage issues were impacting passenger satisfaction. Customer service teams relied on siloed systems, making it difficult to anticipate disruptions or proactively assist passengers.

The airline needed an AI-powered passenger experience platform that could predict disruptions, personalize communications, and automate service recovery actions.

Challenges

- Disconnected operational and passenger systems
- Reactive disruption management
- High call center volumes during delays
- Limited personalization of passenger communications
- Poor real-time visibility into passenger journey risk

Our Approach

KPI Partners deployed an Enterprise AI passenger intelligence platform:

- Predictive disruption models
- GenAI-driven personalized communication engine
- Real-time operational data integration

- Automated compensation and rebooking triggers
- Passenger 360 unified data layer

Solution Overview

The system predicted high-risk passenger journeys and triggered automated, personalized interventions.

- Flight delay prediction using ML
- Real-time passenger impact scoring
- GenAI-generated proactive SMS/email notifications
- Automated meal vouchers and rebooking options
- Executive operations dashboards

How Enterprise AI Lab Approach Was Applied

1. AI Strategy Alignment

Focused on measurable KPIs: CSAT uplift, disruption recovery time, and service cost reduction.

2. Unified Passenger 360 Foundation

Integrated flight operations, loyalty, baggage, CRM, and digital touchpoints into a single governed data layer.

3. Predictive AI Models

- Flight delay prediction
- Passenger journey risk scoring
- Missed connection probability models

4. GenAI Personalization Engine

- Context-aware passenger communications
- Automated disruption messaging
- Dynamic compensation and rebooking workflows

5. AI at Operational Scale

- Real-time event streaming
- Automated triggers for service recovery
- Integrated operations dashboard

Key Technologies

- Passenger Journey AI Engine
- GenAI Communication Assistant
- Cloud Data Platform
- Real-Time Streaming Analytics
- Power BI Operational Dashboards

Business Impact

28% Increase in CSAT Scores

Significant uplift in passenger satisfaction within one year.

35% Reduction in Call Center Volume

Proactive notifications reduced inbound queries.

22% Faster Rebooking

Automated workflows improved recovery speed.

\$12M Annual Operational Savings

Reduced manual service handling and compensation inefficiencies.

Improved On-Time Recovery Metrics

Better coordination between operations and service teams.

Why This Worked

Proactive, not reactive

AI predicted issues before passengers experienced them.

Personalization at scale

GenAI enabled contextual, human-like communication.

Integrated visibility

Unified passenger data created operational clarity.

About KPI Partners

KPI Partners is a global analytics and digital transformation firm delivering solutions across Data Science, GenAI, AI/ML, Data Engineering, Analytics & Visualization, Cloud Data Platforms, and DevOps/DevSecOps/MLOps. Founded in 2006 and headquartered in Newark, California, KPI Partners has delivered over 1,000 engagements for 300+ clients across multiple industries.

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