

Modern Data Warehousing and Advanced Analytics for Airlines

A governed Microsoft Fabric platform that turns flight, ground, and enterprise data into faster, evidence-based decisions.



Wragby Business Solutions & Technologies Limited

www.wragbysolutions.com

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The Challenge

Airlines lose real value to problems hiding in day-to-day operations:

- Flight delays and cancellations with no clear line of sight to root cause.
- Manual, backward-looking reporting that lags real-time flight and ground operations.
- Fuel burn and maintenance costs that erode margins without granular visibility.
- Fragmented data across reservations, crew scheduling, maintenance, and ground systems.
- Mounting safety, on-time performance, and regulatory reporting demands, including ICAO, IATA, and civil aviation authority standards.

Foundational Framework

- Governed, enterprise-wide data platform bringing flight, financial, and operational data into one place.
- Structured on the medallion architecture (Bronze, Silver, Gold), with a dedicated landing zone for incoming data.
- Automated, repeatable pipelines that replace manual data compilation.
- Scalable storage and compute that grows with data volume and organizational demand.
- A single governed source of truth that every downstream analytics capability builds upon.

consistent and reliable data across the business. The second is a purpose-built analytics layer for airlines, delivering the specific insight operators need across operations, cost, and compliance.

Advanced analytics purpose-built for flight and ground operations

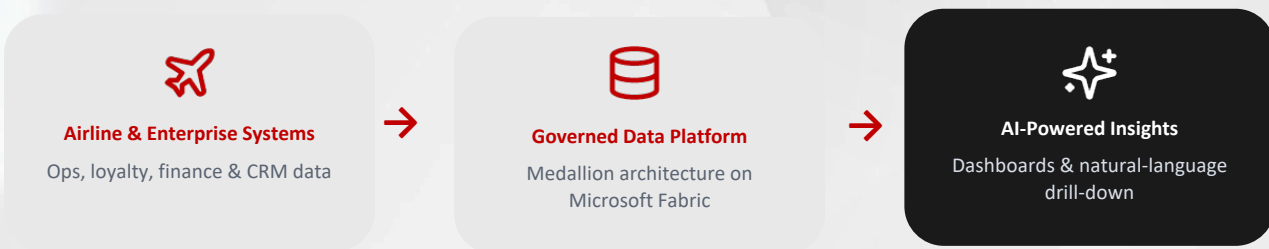
- Delay & Disruption Root-Cause Analytics: pinpoint the two or three causes driving most delays and cancellations, by route, station, and aircraft type.
- On-Time Performance Forecasting: track OTP attainment against targets and forecast performance with confidence.
- Fuel & Maintenance Cost Analytics: surface fuel burn inefficiencies and maintenance turnaround delays before they affect schedules.
- Real-Time Operational Dashboards: monitor on-time performance, load factors, and KPIs as they happen.
- Safety & Regulatory Reporting: streamline compliance reporting aligned to ICAO, IATA, and civil aviation authority standards.

Solution Overview

Wragby's approach is built in two layers. The first is a governed enterprise data platform, the foundation for



How it works



Business Impact

- Fewer avoidable delays and cancellations
- A single governed source of truth across the enterprise
- Faster, more reliable reporting cycles
- Audit-ready safety & regulatory compliance

Core Capabilities



Delay & Operational Root-Cause Analytics

Pinpoint the two or three causes driving most flight delays, by station, route, and aircraft.



Route & Load Factor Performance Forecasting

Track load factor, route profitability and forecast performance with confidence.



Revenue Leakage & Reconciliation Analytics

Surface refund, coupon, and interline discrepancies before they erode revenue.



Real-Time Operational Dashboards

Monitor OTP, load factor, and revenue KPIs as they happen, across the network.



Safety & Compliance Risk Analytics

Turn audit and occurrence data into early warning on emerging safety risk.

Requirements

The items below support a smooth deployment. Not all are required at the outset; gaps can be addressed during the discovery phase of engagement.

- Active Azure subscription with Microsoft Fabric enabled.
- Fabric capacity sized to data volume; enterprise-scale deployments typically start at F16 or higher.
- Azure Active Directory for identity and access management.
- Identified flight and enterprise source systems, such as flight operations, crew scheduling, maintenance, and reservation systems, with their respective data owners.
- Defined reporting, compliance, and business requirements, which may be finalized during discovery.

Why Wragby?

Wragby is a multi-cloud solutions provider in Africa with proven expertise in Cloud Infrastructure Services, Managed Services, Data Services & AI, Cybersecurity, Modern Work, Business Applications, Product development, Digital Advisory, and IT Training services.

Through our seasoned professionals, advanced

specializations, and competencies, we pair deep aviation and airline domain knowledge with modern data platforms to help airlines turn flight data into decisions.

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