



Embrace the New Wave of AODB

Empower your airport with Airport Hive, our leading Airport Operating System that optimises operations for maximum efficiency, safety, and passenger satisfaction. Built around microservices, event streaming and REST APIs, Airport Hive ensures seamless collaboration, enabling other systems to connect and share data effortlessly.

Designed for flexibility and future readiness, Airport Hive offers rich AODB functionality, adapts to new technologies, and meets high cybersecurity standards. It supports cloud, on-premise, or hybrid hosting, giving your airport full control over operations.

Moving Beyond Legacy Monoliths to Microservices

A dynamic AODB, Airport Hive adapts to your unique needs, enhancing decision-making and passenger experience via an intuitive interface accessible on any web browser or mobile device. Powered by microservices, it allows individual updates with zero downtime, ensuring smooth integration and scalability.

Airport Hive's "loosely coupled" system architecture allows for easy integration with other vendor systems through REST APIs, event driven data streams, and data wrappers, encouraging rapid innovation and seamless adaptation to new technologies.

Airport Hive Delivers:

Full AODB functionality with real-time data and modular applications.

Easy accessibility via Web Browser or Mobile both on and off airport.

Event driven microservices architecture for agility and constant innovation.

Full API catalogue for easy system integration.

Event driven data streaming pipelines reliably process and move data.

Modular SaaS approach.

Effortless upgrades with minimal downtime.

Customisable business rules engine for data prioritisation.

Advanced auditing on data changes.

Transform Airport Operations with Event Driven Data Streaming

Airport Hive is a powerful solution built on event streaming architecture, transforming how airports manage operations. Unlike traditional batch processing, which collects and analyses data at set intervals, data streaming allows for real-time processing. This means that as soon as changes occur, whether it's a flight delay, gate assignment, or passenger volume adjustment, Airport Hive instantly processes the data and triggers necessary actions.

How Event Driven Data Streaming Works

Event streaming continuously collects, processes, and distributes data from multiple sources, such as flight info, security checkpoints, baggage handling, passenger movements, and weather updates. With Airport Hive's event-driven architecture, the system reacts instantly as conditions change. All components of Airport Hive publish and subscribe to a central event streaming platform, enabling seamless collaboration across internal and external systems. For instance, if a flight delay occurs, updates are immediately synchronised, notifying staff, passengers, and retail partners.

Benefits for Your Airport

Operational Efficiency: Real-time data enables airport staff to make faster, informed decisions, reducing delays and optimising resources like gates, runways, and baggage systems.

Enhanced Passenger Experience: Prompt updates keep passengers informed about flight status changes, reducing frustration.

Improved Collaboration: Airlines, ground handlers, and retail partners access the same live data, supporting smooth operations.

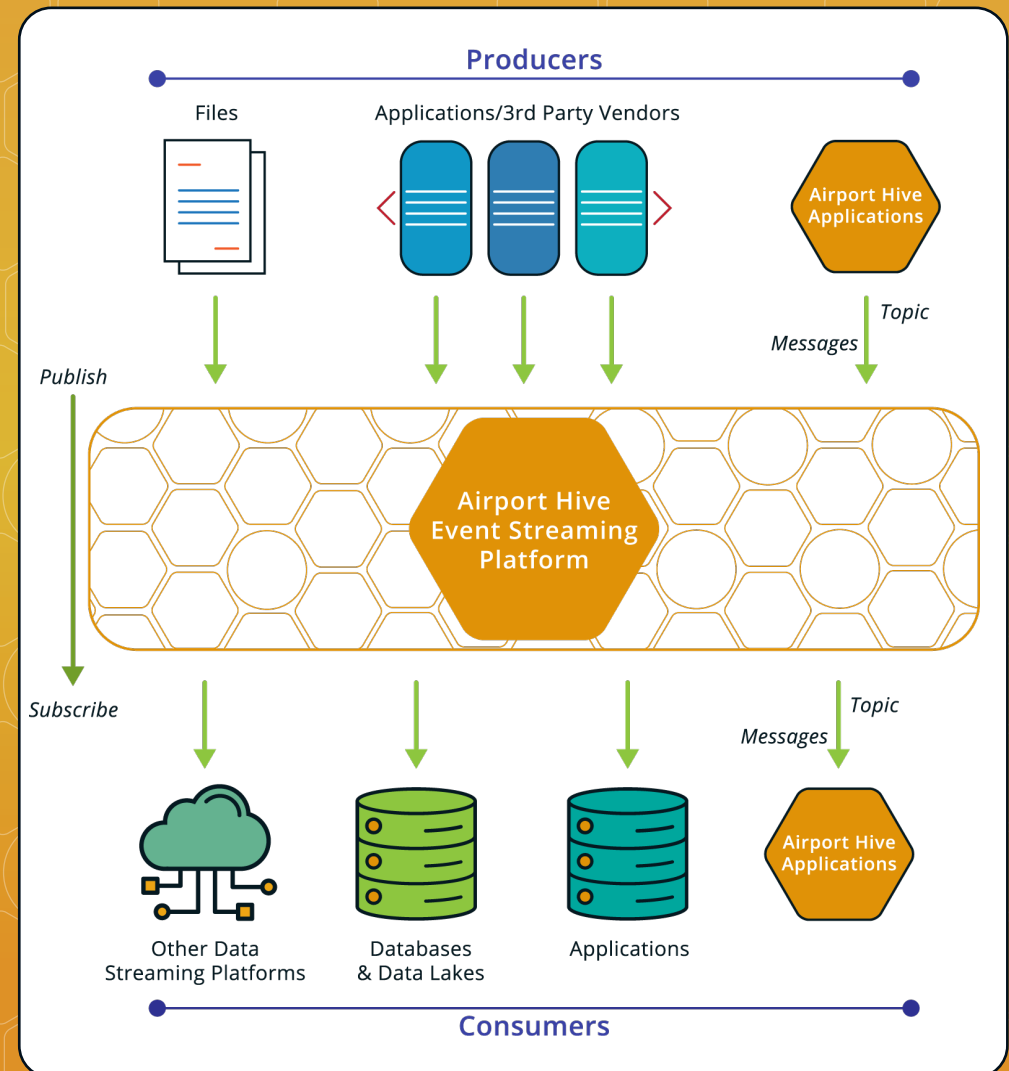
Scalability: As airports grow, Airport Hive can handle increased data without performance loss, supporting future expansion.

In short, Airport Hive's data streaming architecture offers airports a transformative way to enhance efficiency, respond rapidly to real-time events, and elevate experiences for passengers and partners.

Airport Hive Event Streaming Platform

Airport Hive delivers a real-time data streaming message system and protocol built around a publish-subscribe system. Producers publish data to feeds (topics) that consumers subscribe to and receive messages from. Messages are stored in topics in many partitions which supports redundancy.

We also provide full access to all Airport Hive data with REST APIs. Data wrappers can be provided for legacy protocols.



Delivered Through Modern Architecture

Monolithic AODB



In a monolithic AODB, an entire application is contained within a single codebase and deployment unit, tightly integrating all functionalities.

Microservices AODB



A microservices AODB separates the application into smaller, independent services that communicate through APIs, offering enhanced flexibility and scalability.

Core Advantages

- **Cost Efficiency:** Microservices reduce costs by enabling independent scaling and updates, avoiding expensive system overhauls.
- **Increased Reliability:** Event-driven systems quickly detect and resolve issues, minimising costly downtime.
- **Scalable Growth:** API-led design allows for easy scaling, supporting future growth without major infrastructure changes.
- **Faster Service Rollouts:** Microservices speed up the delivery of new features, reducing development time and costs.
- **Full Data Change Auditing:** Full audit trail of data modifications for complete visibility and accountability.
- **Intuitive Investigations:** Quickly identify who made changes, what was modified, and when, enabling rapid investigations into operational issues.
- **Detailed Change Logs:** All flight and reference data changes, along with incoming messages, are fully logged for comprehensive tracking.
- **Flexible Data Handling:** A fully configurable business rule engine adapts and processes data from various incoming sources to meet changing operational needs.
- **Automated Actions:** Customisable business rules trigger automatic system responses, improving operational efficiency and reducing manual intervention.
- **Dynamic Flight Information:** Flight data and grids are conditionally formatted based on available information, ensuring clarity and accuracy.
- **Data Prioritisation:** The system prioritises data from multiple sources, capturing the most accurate and up-to-date flight and operational information.

Future-Proof your Airport Operations

Enabling Aviation Industry Integration

- **Empowerment:** All data is accessible through REST APIs and Event Streams enables you to securely create integrations rapidly and easily share data between internal and external systems.
- **Real-time Data Communication:** Pre-integrated with common industry interfaces (e.g., VDGS, SITA) for fast, seamless exchange of information.
- **Scalability and Performance:** High scalability and fast processing enable the integration of all essential airport systems without delays.
- **Third-party System Compatibility:** Seamless integration with third-party systems enhancing overall operational coordination.

Smooth, Dynamic Transformation

- **Seamless Implementation:** Modular design allows for incremental updates, minimising disruption and maximising operational benefits.
- **Experienced Support:** With over 130 years of collective experience, the Airport Hive team ensures smooth implementation, training, and ongoing support.
- **User-Friendly Interfaces:** Ground-breaking applications with intuitive, familiar interfaces ensure an easy transition with minimal training required.
- **Thorough Testing:** Rigorous testing alongside your current AODB guarantees optimal performance and accurate data validation for a seamless transition.

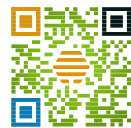
Robust Cybersecurity Built-In

- **Continuous Protection:** Strong security with ongoing testing, authentication safeguards, and best programming practices.
- **Single Sign-On Integration:** Enhanced identity management through pre-integrated Single Sign-On for seamless, secure access.
- **Customisable Security Controls:** Manage user and service interactions with role-based access, authentication, and the ability to define and control data entities for custom applications.



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