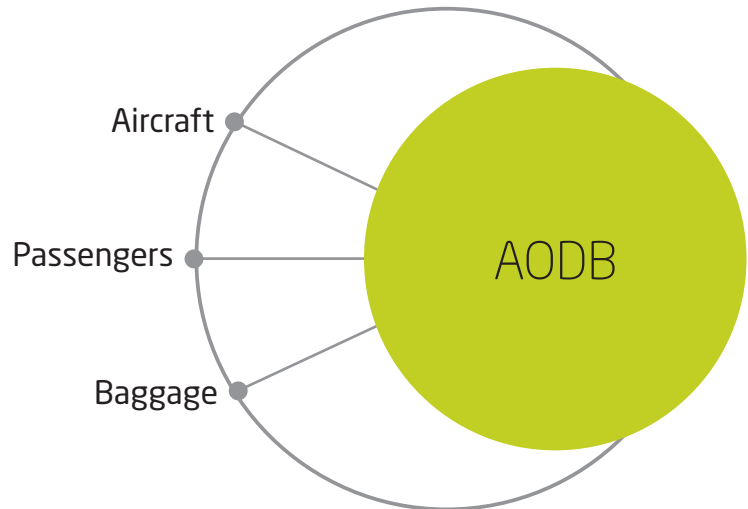


AODB (AIRPORT OPERATIONAL DATABASE)

The core of airport operations management...



Indra Airports

Indra has a wealth of experience in the Airport IT systems, providing solutions across airport operations: ATC-Tower, Ramp/Airfield and Terminal.

Indra solutions provides modularity, operability and scalability. These solutions are adaptable to different requirements, offering solutions for Greenfield, expansion, existing airport projects, as well as multiple airport networks.

Our advanced airport solutions include within the operational environment systems the Airport Operational DataBase (AODB)

AODB general description

AODB is the "core" of the airport operations management system. It allows the integration of airport control systems, airport resource allocation and airport invoicing systems under a unique, friendly, fast and intuitive user interface.

The system gathers information from the air traffic control system (ATC systems), the slot assignment system (SAS) and, in general, all operations related systems within the airport, instantly updating changes to flights and the associated airport resources.

AODB is the destination of all the operational information generated manually or automatically by external parties, as well as the unified information source for all airport users and stakeholders.

In multiple airport networks, Indra's AODB can be deployed using a centralized architecture, simplifying the architecture allowing a single infrastructure serving multiple airports

Features and benefits

- Real-time system: Real-time system:
 - Centralised information system that monitors all events at the airport in real-time
 - Centralised Operations management that allows real-time interaction with all systems
- Robust and reliable system, using industry standard technology, with mobile access capability
- Air Traffic Control, Slot Assignment and Resource Allocation System connectivity
- Integral and unified system, with unique, friendly, fast and intuitive user interface
- Easy and efficient administration, based on user and group profile customisation enabling a full control on data access and update capabilities
- Modularised system, allowing the airport to acquire strictly the required modules facilitating the systems architecture simplification and reducing investment.

Functional characteristics

AODB ensures that the main airport processes for Passengers, Flights and Baggage take place in a coordinated and synchronised manner, as well as providing the information needed by every stakeholder within the airport.

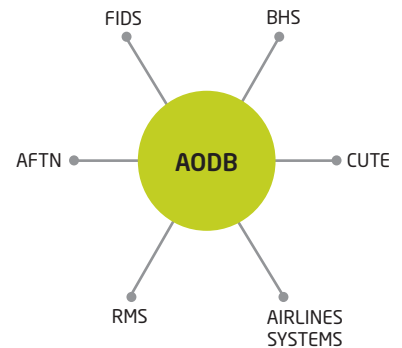
To achieve this, the operational environment must follow the flight process along its full life-cycle.

AODB implementation is based on state of the art standards J2EE and open architecture.

AODB system

AODB modular architecture is fully adaptable to any Airport requirements and future expansion needs thanks to its scalability. Therefore, AODB deployment guarantees an optimum return of investment for the whole Airport life cycle.

AODB will fulfil CDM level 3 (information sharing, collaborative management of flight updates and variable taxi times, pre-departure sequencing and CDM in adverse conditions).



Flight process life cycle

Data pre-charge and update

Real-time management

Reports & billing

Functions supported

Operations scheduling: The interface that allows the operator to administer the flight schedules for each season received from the slot coordination system

Real-time turnaround management: the operator is able to view and update real-time operational data

Airport resource allocation and management: Graphical interface for resource allocation status of check-in desks, boarding gates, stands and baggage claim belts, and the hosting allocation engine

Billing of airport services supplied to airlines and other clients. The key information is compiled and maintained in the AODB to enable accurate client invoicing.

Key Performance Indicators (KPIs) reporting to monitor the quality of service: application provides indicators and dashboards for the evaluation of the airport operation

Reporting of quality service indicators. Measurement of the airport operations process is fundamental in the deployment of a continuous improvement process. The system allows operation indicators to be defined (such as punctuality, number of cancelled flights etc.) with a corresponding acceptability threshold, thereby facilitating advanced quality control through alarm generation and notification of the relevant indicators.

Associates services

- Design and consulting services
- Product adaptation, product can be customized and adapted to fulfil any specific airport requirements
- Integration with external systems
- Deployment
- Testing & Commissioning
- On-site, Off-site Support and Maintenance
- Product new versions updating service, with no additional cost if Indra is maintenance provider.

References

Indra developed its AODB as the corporate airport management system for Aena, which is the world's largest airport operator with a network of 62 airports distributed around Spain and Latin America. The AODB is in operation in 47 of AENA's airports and functions in both remote and local operation, and various small private airports in Spain and Africa.

AODB is currently in use in Aena's main airports including Madrid – Barajas and Barcelona – El Prat, and is being rolled out to the GAP airport network in Mexico.

Functional characteristics

Core

Provides basic essential AODB functionality such as: Real-time management, System Administration, Basic Information Management and Integration with external systems

Programming

Functionality that generates series information in the systems such as flights programming.

Scheduling

Real-time deployment of the operational information in the programming module such as flight scheduling

Billing

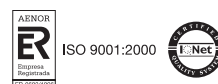
This module provides functionalities for bill to the airlines the use of airport resources

Reports

Tool to generate reports and indicators about different aspects of the airport operation.



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Indra reserves the right to modify these specifications without prior notice.

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