# SINGLE SOURCE OF TRUTH

An airport-wide database drives operational efficiency

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For the airlines, an AODB that integrates across all aspects of the airport operation is key to improving aircraft turnaround times and asset utilization

For any commercial airport, operating from a consistently reliable single source of data is paramount to ensuring efficient, safe and secure operations and driving customer satisfaction. An airport operational database (AODB) is the heart and central truth of operational data. It presents all relevant information in one place in order to make appropriate decisions as well as share reliable data with all airport stakeholders. The AODB is a "software repository in which all flights and associated information is stored within an airport," explains Fabien Betend of ADB SAFEGATE Airport Systems.

At most airports, operational decisions are made based upon data from the AODB. "It's critical to have a reliable AODB because it's the source of information for all of the systems at an airport," says Betend. Operational efficiency is highly dependent on accurate data and that includes all the information that impacts a passenger's journey through the airport, including real-time flight and baggage information.

All operations, staff management and organization is led by the scheduled time of arrival and departure of flights – data fed to the AODB by the airlines. "The more information you have in advance about a potential delay, the more capable you are to meet the needs of the aircraft," says Betend.

An AODB continually receives information from third parties. For example, if there is a delay, that information is relayed to the AODB from the airline or air traffic control tower. The AODB software monitors for these changes, provides the "best known value" for the updated time of arrival or departure and then pushes that information to all stakeholders. The more integration with third party systems, the better the AODB can predict an accurate time of arrival or departure.

"The idea is to give all stakeholders the same information at the same time in the same place with the same tool," Betend says. "The AODB is the center of that."

## A comprehensive resource

As a provider and integrator of all airport systems, ADB SAFEGATE's AODB offering includes resource management, flight information display, billing, baggage management, resource optimization, system integration and operational improvements to ensure collaborative decision making airport-wide. Relying on industry standards, the AODB interfaces with other systems. Its suite of modular solutions enables ground time optimization, improves situational awareness in real time and optimizes movements of all vehicles and stakeholders on the ground, resulting in airport-wide gains on performance and efficiency by avoiding delays and flight cancellations.

An AODB should be capable of all requirements of Eurocontrol's Airport Collaborative Decision Making (A-CDM) initiative, Betend says. With total airport management, A-CDM builds upon the AODB to allow airports to apply advanced analytics to the vast amounts of data collected from the AODB, tower, gate and airfield to improve operational efficiency even further.

Implementing an A-CDM on top of the AODB allows airport stakeholders to use common airport-wide data for deeper analysis and improved decision making. The result is an airport that can operate more dynamically, increasing throughput, reducing costs and increasing levels of passenger satisfaction.

## Better business logic

AODB offers better asset utilization for airlines, while passengers receive accurate flight information, including arrival and departure time changes. On the ramp, ground handling crews are better able to allocate resources through improved planning, which can lead to reduced costs and maximized profits.

Passenger traffic is growing faster than airports can invest in infrastructure, making turnaround optimization is even more critical. Improving aircraft turnaround times depends on how landside systems such as the baggage handling system are performing as well as what is happening on the apron. This rule also applies to the type of aircraft and number of passengers for each flight, information the airlines provide to the AODB. A larger aircraft means more passengers, which would alert the operation that more resources might be needed at that gate. "The AODB provides business logic so that each time there is a change of aircraft, it automatically regenerates the links between arrival and departure," Betend says. "This is very important for turnaround optimization."

"An AODB is highly configurable and must be configured to the needs of the client," he adds. "Time is spent with the airport to understand where they get their information and where it should be shared."

Prior to customer delivery, stakeholder or subject matter workshops are organized to "choreograph all the different areas of the operation," Betend explains. The workshops include the airport's IT department, to understand the infrastructure and network. Each airport has its own operational issues and requirements, says Betend. The ADB SAFEGATE team works closely with the airport stakeholders to understand the needs of the operation and identify areas that could be optimized, and problems that could be solved, through the AODB.

As the industry evolves, ADB SAFEGATE's products follow suit and are continually updated to meet changing operational needs. Constant engagement with industry working groups enables the ADB SAFEGATE team to be proactive and responsive to requirements of airports, including looking toward the future and keeping a close eye on trends like mobile access to AODB information as well as in-cloud delivery options.

As a provider of integrated solutions used in the tower, on the airfield and at the gates, ADB SAFEGATE, with its acquisition of Airport Systems, offers a total airport management portfolio of automated and integrated solutions for airside and landside. All of the separate systems at an airport can work as one seamless solution, sharing data and applying data analytics to optimize the performance of systems. ❖