Indra expertise in the ATM and airport

Indra is the leading IT Spanish company and one of the top five ATM systems suppliers all over the world. Indra knowledge and its products portfolio reach all different areas at both air and land processes supporting all stages at the air traffic management business.

This knowledge, consolidated with the experience acquired along the last 30 years, has enabled Indra to create a new paradigm, called In-Airport, about how IT supports the airport information needs.

In-Airport compiles all the know-how in both operational and technical environments accumulated with the references in ATM and airports, together with the leadership in the initiatives which are currently optimizing the airport processes (CDM) and defining the future for air transportation (SESAR).

AODB and its role within In-Airport

The key process within the airport is the aircraft management, and the system within the In-Airport paradigm in charge of managing such aircraft process is the Airport Operational Database (AODB) taking care of all the phases of the operation and its related activities.

Aircraft management and the information related to the operations is required by basically every system or stakeholder, and it is important to ensure coherence on such information management across the airport. AODB serves as the operational processes governor, information manager and repository maintenance, facilitating the data exchange with external systems and centralizing the applicability of operational improvements.

AODB integrates the most advanced concepts conceived at international standardization forums. A-CDM (Airport Collaborative Decision Making) and AOP (Airport Operational Planning) guidelines are deeply implemented on the AODB operational management, powering scheduling and real-time operation phases to ensure a robust and smooth performance of operations taking place at the airport. Indra AODB product supports both local and centralized deployment, catering the operational requirements of all sizes of airport: From the installation of a single module in the smaller airport until the deployment of a single infrastructure to meet the needs of a full airports network.
**Key benefits of Indra AODB**

- **Global integrated management of all the operational environment and its relationships with other areas in the airport**
- **Automatic support of operational procedures such as A-CDM or AOP guidelines implementation.**
- **Customized integration with external systems which increase the level of automation of the aircraft process, including standard aeronautical message formats (IATA, AIDX, XML schemas... etc)**
- **Application loosely coupled with the supporting technology, capable to be deployed in a variety of HW (Intel, IBM, Oracle...), Operating System (Linux, MS-Windows, Solaris, HP-UX...) and other base software (Oracle, MySQL or Postgres databases...).**

**AODB modular components**

**Seasonal scheduling**
- Seasonal operations scheduling management.
- Automatic rolling out of schedules into operational flights.
- Preparation of operational flights prior to enter into the real-time phase.

**Integration**
- Capability of integration with all external systems at the airport through Integration Broker infrastructure.
- Implementation of a variety of formats and information exchange technologies from legacy protocols until SESAR and ACI best practices.

**Real-time operations management**
- Performance of all operations management functions both manually or automatically through integration with external systems.
- High configurability about the functions and information to be accessed (or updated) by every user.
- Automatic alarms detection with access to all historical information and reports.

**AOP/CDM support**
- Implementation of A-CDM standards and best practices (milestone approach, common situational awareness...)
- Constant evaluation of capacity and demand balance since a very early stage facilitating adverse conditions predictability and improving the decision making between all stakeholders.

**Aeronautical billing**
- Compilation of all billable information from the use of airport resources, services provided and operation characteristics (passengers, cargo... etc).

**References**

Indra developed Aena’s centralized AODB as the corporate airport management system. Aena 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.

Outside Aena, Indra AODB has been successfully deployed in important airports like Murcia and Castellón in Spain, and foreign countries like Kenya covering operational needs at Jomo Keniatta (Nairobi) and Moi (Mombasa) international airports.

Looking to the future, Indra participates on main international standardization and evolution forums about Air Transportation market, leading all the works related to the systems evolution within airports at SESAR program.

**Related Services**

- Design and consulting services at both operational and technical contexts
- Product adaptation, so it can be customized and adapted to fulfill 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.

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