

COMPREHENSIVE AIR TRAFFIC MANAGEMENT SYSTEM IN OMAN

EASY ACCESS TO INFORMATION IN A VIRTUAL ENVIRONMENT



Context

SAFETY AND OPTIMIZATION OF AIRSPACE MANAGEMENT IN OMAN

The Oman Minister of Transport and Communications, S.E. Dr. Ahmed Mohammed Salem Al-Futaisi, launched the process to tighten air security and help optimize use of the country's airspace.

The Muscat control center, which governs Oman's airspace, needed a system that could adapt to the roles of in-flight and approach surveillance and present the information in an environment that would

facilitate controller access and decision-making.

The requirements indicated that interoperability was a key concept in the design of the air traffic management systems. These would need to exchange information with other systems and control centers in other countries intervening in the air control operations.

The systems would be deployed in the Muscat traffic control center, which manages the entire upper airspace of Oman. The new system would oversee the upper air space, supporting flights en route and providing approach control services at the Muscat and Salalah International Airports. It would also provide back-up for the systems of Oman's Muscat and Salalah International Airports, and for four other regional airports (Sohar, Ras Al Hadd, Duqum and Adam).

Turnkey air traffic management system

Indra submitted a turnkey project to supply an advanced automated air traffic management system that provided controllers with a complete and unique view of aircraft movement in the airspace under their responsibility. The controller workstations were designed from a holistic viewpoint, taking into account both current and future needs.

The control station features a single 56" high-resolution screen that allows controllers to quickly bring up any application on-screen, while providing rapid and easy access to radar, weather and flight plan information, amongst others.

The user-friendliness and the system's possibilities simplify the controllers' tasks, thereby increasing the time available for correct decision-making and for managing growing volumes of air traffic.

The control position was designed in accordance with the open architecture paradigm, which ensures easy adaptation to technological changes and advances to be integrated in the coming decades. This streamlines operability and updates to new software versions or of information from various sources, without needing to modify the system.

The deployed solution has an advanced automated air traffic management system shared by all of the country's airports and control centers. The land-air voice communications system was renewed, a complete weather system was implemented and the aeronautical messaging management system was expanded.

The latest generation solution features advanced flight plan management tools, flight trajectory calculation systems and conflict detection. This system can manage a greater number of flights.

Oman's two international airports, Muscat and Salalah, have also been equipped with runway movement guidance and monitoring systems installed by Indra.

Indra also participates directly in the commissioning of its systems at all levels, whether technical or operational and control levels, thereby providing a comprehensive solution as well as contributing toward efficient and effective use of system functions to ensure maximum performance.

Benefits

Safety and ergonomics

- All information is available and integrated in a single monitor for easy access and viewing.
- Virtual environment without visual distractions.
- Quick access to flight plans.
- Real-time access to information on weather conditions.
- Controller selection of on-screen information, as needed.
- Contingency center to respond to any type of incident and guarantee safety.
- Additional expansion of the aeronautical messaging management system connected to the international network.

Indra ATM

Indra world leader in ATM

At present, Indra has developed air traffic management systems that are deployed across the world, with over 4,000 installations across 160 countries and more than 95 years of experience in the sector.

Indra has positioned itself as market leader in the supply of air traffic management and communications, navigation and surveillance systems.

In the field of R&D, Indra is one of the leading companies in the SESAR program, the key technology behind the Single European Sky initiative. Indra is also the technological partner of many major European navigation service providers, including ENAIRE, NATS, DFS and EUROCONTROL, among others.



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