

Angola opens its new capital airport on time for the African Cup of Nations 2010 with an Indra airport IT turn-key solution

Indra delivered the whole package of terminal systems for Luanda Airport: from design to delivery including managing suppliers, stakeholders and risks while ensuring quality and operational alignment.

In a turn-key approach, the contractor bears all the responsibility for design, construction and testing, including business alignment and meeting regulatory guidelines. The systems are left ready to turn the key on to become operational. That's what Indra did for Luanda airport and is presently doing for Lubango.

ENANA, the Angolan airports operator, used a turn-key approach as the existing systems were by no means upgradeable. They were totally replaced with updated, competitive, integrated and fit-for-purpose technologies.

For both airports, the turn-key system delivery included terminal systems such as the AODB, FIDS, CUSS/CUTE, CCTV, ACS, MATV, PAVA, car park management system, IP telephony, radio, screening systems and the master clock.

For Lubango, the scope of the turn-key project was much wider as it also included the whole set of aeronautical systems like SACTA-TWR, DVOR/DME/ILS, SCV/Radio UHF & VHF, as well as AwFOS/AFTN/TSS & SMP, including runway beacons, PAPI and wind cones.

The several systems installed are underpinned by a gigabit ethernet multi-purpose network. All kinds of field equipment have been installed, including new servers and workstations, screens, security cameras, and telephones. The new systems are redundant,

A turn-key contract is always related to a strong performance orientation, as it begins with well-defined objectives and follows a close monitoring of milestones, resources and performance.

As the provider proves to have sufficient knowledge, most concerns about losing control or "putting all eggs in one basket" quickly fade away and turn into a fruitful collaboration with the technological partner.

ensuring a high uptime and very little risk of system failures.

The new systems are fully scalable. In time, when the airport traffic grows and the systems require an upgrade, the airport managers will realise they have open systems that can grow along with the airport business.

As well as project management, the turn-key solution included consultancy services. Operational processes have been reviewed and formalised, creating new standard operational procedures and all the systems have been integrated.

Undertaking this effort as a turn-key project has also meant a reduced strain on ENANA's staff. In a conventional systems supply process, the airport staff need to participate extensively in order to align the new infrastructures and systems being built with the operational needs. At the same time, they are busy doing business as usual that, actually, becomes much more complex as the enlargement process interferes with the daily operation of the airport. The turn-key

Luanda Airport (Angola), 3.5M Pax was opened in 2010 just on time to transport football teams and their supporters to the Africa Cup of Nations 2010.

Lubango Airport (Angola), 0.25M PAX opened in 2010.



Images from the turn-key systems delivery for Luanda and Lubango airports.



approach freed resources that were essential for a successful hand-over process. Some of those extra hours were dedicated to an extensive training program to get ready for the operation of the new infrastructures.

Access control systems are ready to be integrated right away. This means it is possible to share the same security cards in both airports, giving the right permissions to every specific user. It is also possible to control and administer Indra's FIDS solution from any of the airports or from a remote location.

The IP-network based telephone system is able to interconnect the users from any airport at no extra cost. Things like visualising CCTV images from one airport in the other are already possible, as it will be to visualise all cameras from a central control centre built in the future.

The turn-key delivery of the airport systems was a key enabler for the on-time commissioning of Luanda Airport on the 10th of January 2010, just in time to receive 53 African national football teams for the Africa Cup of Nations. ❖

From airside to landside, in Lubango all the systems were provided by Indra.



Working in Angola

A turn-key approach is specially recommended in a complex environment where local resources and capacities are not readily available.

The Angolan context was very interesting and a great learning experience for the Indra project team.

Some of our best moments have been:

- When the PAVA system went live it was the first PAVA system ever to be built in Angola. People working in the terminal left what they were doing and started dancing to the rhythm of the music.
- Initially, people didn't dare use the automatic escalators. People were scared of using them. Too alien and futuristic.
- The concept of multi-purpose network was surprising for them. Local technicians expected each plug to be devoted to a specific system, not to be totally versatile.

All these learnings will be incorporated to Indra's wealth of knowledge and experience gained from working in more than 100 different countries throughout the planet.

Benefits for the airport operator:

- Performance-oriented contract that ensures a specific outcome while minimising risk and containing costs.
- The systems provided are state-of-the-art and fit-for-purpose aligned with airport operational needs.
- Freeing their own staff and training them to ensure a smooth transition.
- Easy integration of several airports.



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