CASE STUDY

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Airport Process Optimization

A SOLUTION TO ENSURE QUALITY IN THE MANAGEMENT AND OPERATION OF AIRPORTS OPERATING UNDER CONCESSION, INCREASING NON-AERONAUTIC INCOME AT THE COMMODORE ARTURO MERINO BENÍTEZ INTERNATIONAL AIRPORT OF SANTIAGO DE CHILE.
EXECUTIVE SUMMARY:

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A consortium composed of Groupe ADP (45%), VINCI Airports (40%) and Astaldi Concessioni (15%), has been the concession holder of Arturo Merino Benítez Airport since April 2015. This group has set the target of increasing passenger capacity from the 16 million who used the airport in 2014 to 30 million in 2020, with a total potential for 45 million.

Ikusi

Ikusi is an acknowledged IT specialist in the airport sector providing innovative solutions through proprietary development and partner alliances. Over 35 years of experience back Ikusi’s track record in the international airport sector.

An added-value offer based on more than 35 years of experience in the sector has enabled Ikusi solutions and services to be operative in more than 130 airports in 25 countries and 4 continents, serving 250 million passengers the world over.

Needs

The mission is to implement a software tool to check service levels (SL-SIC) that makes it possible to audit, coordinate, record and obtain real-time information on all the systems and processes associated to the operative functioning of the airport, as well as verify the conditions for rendering and operating aeronautic and non-aeronautic services.

Solution

Through the integration of data from the existing systems, Spider monitors KPIs (quality indicators) and compares them with the standards and objectives defined in the concession contract.

Benefits

- Improvement in control over the services
- Capacity for measurement
- Correction of deficiencies found in the services
- Improvement in the quality of services offered to passengers
- Deployment of a baseline technology on which to grow and incorporate prediction modules and what-if scenarios.

BACKGROUND

The Commodore Arturo Merino Benitez International Airport of Santiago de Chile is managed under a concession model. The concessionaire, the Chilean Ministry of Public Works, required in its bidding specifications for the new concession holder to implement an information system to control the service levels of the infrastructure under concession.

This platform had to avail of the most advanced tools for both real-time data capture (from the different airport systems and field devices) and a potent BI to lend coherence to all the data received as well as to make decisions.

This software platform to check service levels (SL-SIC) had to enable audit, coordination, recording and obtaining real-time information on all the systems and processes associated to the operative functioning of the airport, as well as to verify the conditions for rendering and operating aeronautic and non-aeronautic services.
SOLUTION:
To respond to this challenge, Ikusi implemented Spider. This solution gives a response to the increasingly prevalent concession model that entails the need to create a framework for the relations between the public owner and the private concession holder, who is bound to fulfill certain quality parameters that the owner (in this case, the Ministry of Public Works of Chile) is obliged to guarantee based on the international standards marked by agencies such as ACI, ICAO, IATA, etc., which regulate the context in which the airport and air transport business must take place.

Spider, through the integration of data from existing systems, monitors KPIs (quality indicators) and compares them with the standards and objectives defined in the concession contract, such as waiting times, temperatures, luggage arrival times, terminal occupancy, etc.

Monitored services:
• Passenger boarding service
• Luggage transport service
• Flight information services
• Environmental conditions (temperature, luminosity and humidity)
• Assistance service to passengers with reduced mobility
• Electro-mechanical transport services (elevators, escalators, boarding bridges)
• Compliance with annual maintenance plans

7 systems have been integrated for the purpose:
• FIDS (Ikusi)
• GPS for measuring bus times in boarding and unloading (Mobile Master)
• IoT sensors (Libelium)
  - Luminosity
  - Temperature
  - Humidity
• BMS for status checking on electro-mechanical equipment (Fleischmann)
• Maintenance management system (Maximo)
• RFID system for asset tracking

Over 65 KPIs are currently being monitored.

PROFITS/INCOME
The Commodore Arturo Merino Benitez International Airport of Santiago de Chile has become the first in all Latin America to avail of a system measuring different airport service level KPIs in real time, a pioneering achievement in public and private sector collaboration that guarantees continuing improvement and the final benefit of both passengers and taxpayers.

• Improvement in control over the services
• Capacity for measurement
• Correction of deficiencies found in the services
• Improvement in the quality of services offered to passengers
• Deployment of a technological base on which to grow
Ikusi today is a company committed to the success of its clients that grows together with them and becomes their technological ally, to assume leadership in market areas by contributing with integrated ICT-based business solutions (information and communication technologies) and electronics.

We make operational efficiency and passenger experience a reality thanks to our experience of over 35 years in the airport business.