

## FLOWANALYZER

A COMPONENT OF THE AIRPORTPULSE PORTAL, SUPPORTING PASSENGER FLOW AND DWELL MONITORING SYSTEM WITH ASSET TRACKING CAPABILITIES

At an airport, the daily movement of passengers, other customers and key assets directly impacts on key touch points across the terminal, thus affecting operational performance, revenue generation and the passenger experience.

### ISSUES

#### Optimization of non-aeronautical revenues

- As an airport, how can I ensure that I obtain the best value for my retail lease space?
- Where are the best locations to place saleable advertising, in order to maximize revenue?
- What are the optimal retail operating hours during a day?
- What are the draw rates by concession?

#### Lack of clear terminal volumetric and statistical data

- Key flow, location, dwell, peak and volume statistical data on passengers and key assets.
- Lack of knowledge on passenger flow patterns and referring traffic models.

### SOLUTION

FlowAnalyzer is an analytical tool which specializes in monitoring and reporting on the end-to-end flow and dwell of people and assets across the airport.

For the airport, FlowAnalyzer delivers visibility, knowledge and insight into where passengers and other customers wait, walk, dwell and engage.

The tool leverages both historical and near real-time data, and uses powerful algorithms to deliver accurate flow patterns, dwell times and path analysis reporting and statistics, including:

- dwell time
- first-visited locations
- highest traffic location
- peak retail hours by location
- path analysis and patterns

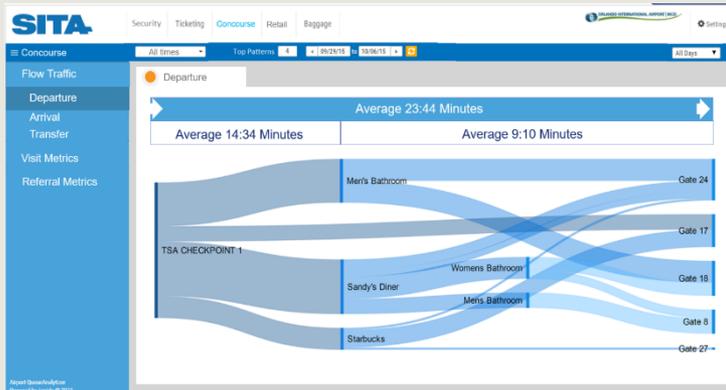
### BENEFITS

- FlowAnalyzer provides a deep understanding of customer flow and dwell behaviour, thus allowing optimal non-aeronautical revenue optimization based on customer volumes and dwell times.
- FlowAnalyzer analysis can identify high-traffic and dwell locations, in order to locate high revenue advertising opportunities.
- Via FlowAnalyzer, airports can optimize retailers opening times to match the customer flow profiles.
- FlowAnalyzer delivers operational information, statistics and reports designed to improve airport planning, and make improvements in the overall passenger experience.

# 42%

**of airports conduct retail sales analysis. This figure will rise to 80% within three years.**

# HOW DOES IT WORK?



At an airport, the daily flow and dwell of passengers and other customers directly impacts key touch points. SITA's AirportPulse Portal delivers fast, agile, business-enabling technology to understand and manage the airport's day of operation.

## SOLUTION COMPONENTS

### 1. Turn-key solution

FlowAnalyzer is a web-based location analytics application with asset tracking capabilities. It is used to analyze historical and real-time passenger flow and dwell time statistics. At sites that use Cisco Wi-Fi infrastructure, SITA obtains data from Cisco's Mobility Services Engine (MSE). At sites that use Aruba Wi-Fi infrastructure, SITA obtains data from Aruba's Location Engine (ALE), both of which deliver mobile device location positioning data to FlowAnalyzer. FlowAnalyzer is typically deployed within a SaaS (Software as a Service) cloud-based architecture.

### 2. Bluetooth sensors

For greater location accuracy (within one metre), Bluetooth sensors can be deployed in specific locations, e.g. retail concessions, to complement the existing Wi-Fi infrastructure. In addition, key assets are tracked via battery-powered Wi-Fi tags, and can also be used to locate airport staff.

### 3. AirportPulse

FlowAnalyzer is a component of AirportPulse, SITA's Airport Intelligence Portal. It provides KPI dashboards and a single point of access to a broad range of services, to provide end-to-end situational awareness across the airport.

## CASE STUDY

A tier 1 airport has driven improvements in advertising revenues by more than 4% by leveraging airport customer segmentation knowledge, coupled with FlowAnalyzer's passenger volumetrics, dwell and flow information, in order to deliver specific passenger targeting and thus meet the advertiser's specific requirements.

Leveraging the same data and methodologies, the airport has also gained improved retail lease revenues based on customer flow volumes, patterns optimizing retail traffic.

FlowAnalyzer's statistical information also enables airport operational teams to have a deeper understanding of the airport's passenger flow profiles and how these can be used to facilitate resource planning and traffic modeling.

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