



Airport Flow Management & Security Solutions

IEE S.A., Luxembourg

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Airports Today Face a Number of Challenges

- More passengers
- Insufficient terminal infrastructure
- Leading to:
 - longer queues at safety and security areas
 - airline SLA penalties
- Passenger crowds due to non-optimized shuttle schedules
- Customer service issues due to insufficient staffing levels
- No intelligent flow management solutions

The result: lower turnover in duty free areas and restaurants

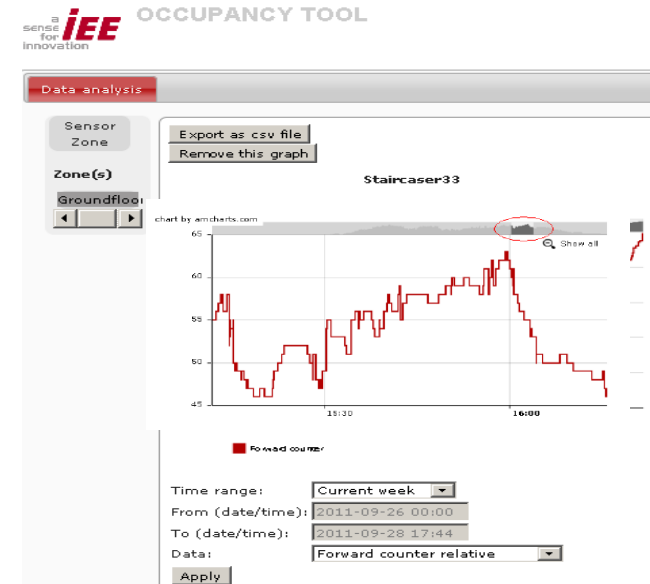
IEE's Airport Solutions

- IEE offers unique solutions designed to manage these challenges
- These solutions are based on **3D MLI Sensor™ technology** and proven in airports and other public buildings around the world
- IEE's **People Counter** and **Tailgate Detector TDflex™** offer an effective and accurate way to help you **improve the passenger flow management** in your airport



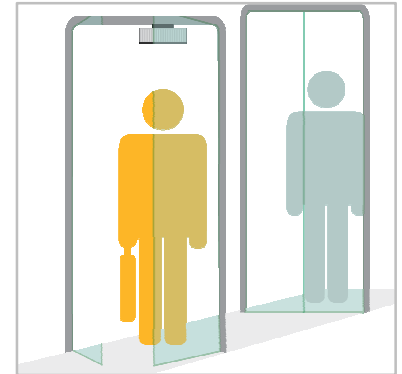
People Counter – An Overview

- Precisely counts dense groups of people in two directions
- Level of accuracy of greater than 99% - proven by independent benchmarking tests and in real-life situations
- Correctly counts people carrying objects
- The best solution for occupancy monitoring and flow management

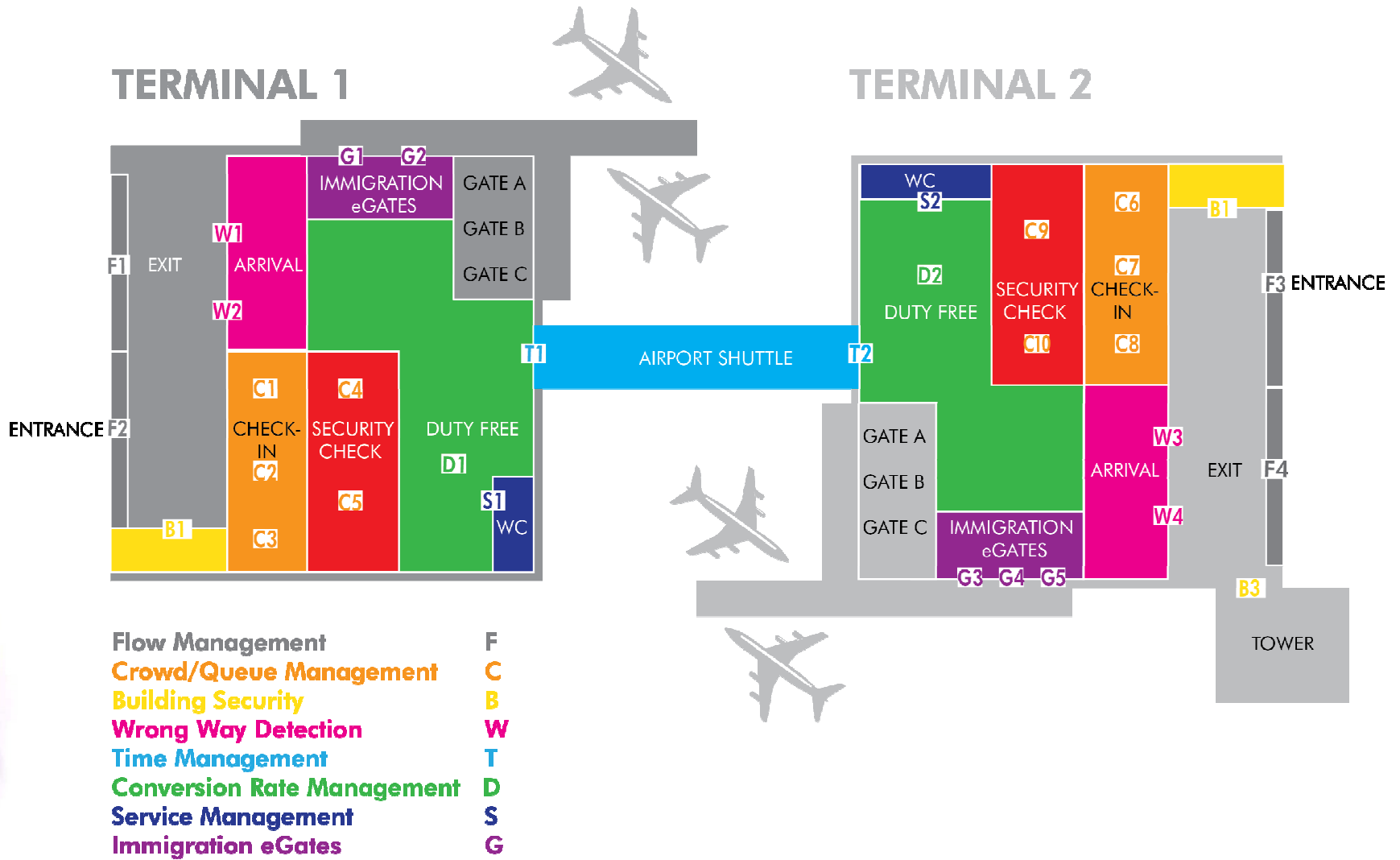


Tailgate Detector TDflex™ – An Overview

- Prevents unauthorized access (tailgating or piggybacking) to secure areas
- Detects tailgating in one or more directions
- Available in two configurable operating modes – virtual mantrap (e.g. single doors) or real mantrap (e.g. airlocks and eGates)
- Easy to integrate with existing access control systems
- No computer required – comes with embedded application firmware



An Overview of IEE's Applications in Airports



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Flow Management - F

- All terminal building entrances equipped with a People Counter
- Provides real-time people counting/occupancy monitoring, and statistics to detect passenger flow at all entrances



Flow Management - F

- Allows identification of bottlenecks and leads to:
 - Optimized infrastructure harmonizing passenger flow
 - Increased safety and passenger satisfaction
 - More turnover generated in food courts, restaurants, shops and duty free areas



Crowd/Queue Management - C

- People Counter installed at safety and security relevant access points in the terminal
- Provides real-time information about passenger crowds and queue lengths
- Helps airlines comply with airport authority SLAs on maximum queuing times



Crowd/Queue Management - C

- Occupancy Tool provides data analysis/historical data statistics for:
 - Maximized passenger throughput, as you can quickly react to crowding
 - Increased safety and passenger satisfaction
 - More turnover generated in food courts, restaurants, shops and duty free areas



Building Security - B

- TDflex™ installed at the airport's high-security areas e.g. security doors, security rooms, tower, offices and data centres:
 - prevents unauthorized access
 - adds an additional security layer to existing access control systems
 - alerts if there is a security breach
 - optimizes security staff scheduling
 - saves costs, as additional security gates are not required



Wrong Way Detection - W

- People Counter can be used to prevent people from entering the air side of the terminal through the exit door (exit lane breach control)
- The sensor detects people walking against the flow of traffic in a pre-defined wrong way
- It triggers an alarm to indicate a potential security risk
- The result, an increased level of security



Time Management - T

- People Counter installed at access points leading to airport shuttles, trains, buses, etc.
- Provides real-time passenger counting and occupancy monitoring



Time Management - T

- Occupancy Tool provides data analysis/historical data statistics for:
 - Optimized shuttle, train and bus timetables/ schedules - reducing crowds
 - Increased safety and passenger satisfaction
 - More turnover generated in food courts, restaurants, shops and duty free areas



Service Management - S

- Real-time occupancy monitoring (people counting), and statistics in front of the entrances to rest rooms, food courts or duty free shops
- By analysing the occupancy data, you can increase service levels by optimizing staffing levels, resulting in:
 - Increased passenger satisfaction



Immigration eGates - G

- Mainly used in airports, for:
 - Immigration/ automated passport check
 - Automated airplane boarding
- Uniqueness detection by eGates is mandatory



Immigration eGates - G

- TDflex™ can be integrated in eGates to detect unauthorized access and trigger an alarm
 - By installing TDflex™ in an eGate, you get the highest accuracy level available on the market
 - Helps to minimize false acceptance and rejection rates



Conversion Rate Management - D

- Optimized crowd management leads to higher throughput rates, resulting in:
 - More turnover generated in food courts, restaurants, shops and duty free areas



About IEE

- Founded in 1989
- Turnover : 166 m EUR (2012)
- 1,600 people and >10% dedicated to R&D
- Markets:
 - Automotive
 - Building Management & Security
 - Medical, Health & Sports
- Global leader in automotive safety sensing systems for occupant detection and classification
- Strictest quality, environmental and health & safety standards
- 150 patent families