



Airport Security Solutions

Optimising passenger flow management



The Future of the Airport

Automation, self-service and ease of travel



Recent growth in the demand for air travel and developments in technology has brought a step-change in the way airports manage their passenger flow.

Aviation is steadily growing. According to IATA air passenger forecasts, 8.2 billion passengers are expected to travel in 2037, a near double of the 4.1 billion air travellers in 2018. Persistent passenger growth, as well as infrastructural constraints, global security risks and more demanding passengers, are leading challenges in the aviation sector.

From personalised pre-travel communications to a simplified, delay-free arrival through border control, airline travel and the airport terminal experience will soon become unrecognisable from what they once were.

Developments in self-service check-in and automated identity checks technology allow passengers to manage their own travel arrangements whilst enabling airports to increase their capacity in order to meet the increasing needs and volumes of travellers.

Gunnebo's airport security solutions equip the airport environment for this step-change in air travel by providing a secure, efficient and reliable means to manage the passenger flow process.

Through automating the system of identity checks that take place at different stages through the traveller's journey the process is transformed into a seamless, walking-pace transition through pre-security, lounge access, boarding and arrivals.

Gunnebo's solutions at these key touchpoints are adapted to the specific needs and security measures of each location within the airport and with an ability to integrate any reader or scanner, are ready for the biometric single token which promises to redefine the airport journey.

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With market forecasts predicting huge growth in the air travel sector – resulting in increased passenger footfall and demand – a challenge presents itself in how to meet these needs whilst maintaining operational efficiency and positive passenger experience.

While airport expansion is limited by many factors (space, budget, stringent regulations) operators must find ways to stay ahead of this wave of growth, optimising their capacity and enhancing their efficiency. With many airports having reached saturation point, automation and digital technology offer a way to manage passenger flow into the future.

The airport terminal landscape is soon to be transformed by new technologies which allow passenger tracking, passenger detection and queue management.

Automation means data generation, and in order to benefit from this data operators must ensure that their passenger flow management solutions integrate fully with their operations.



Global passenger traffic is set to increase at **5.9% per year** - this rise in growth presents a challenge and an opportunity.



Intelligent Passenger Flow Management

for all stages in the airport journey

Following IATA guidelines, Gunnebo provides the latest in automated gate technology for all key touchpoints in the passenger's journey through the airport terminal.



Pre-Security Boarding Pass Check

Increase capacity with self-service security



1

Gunnebo PreSec - Benefits

- Greatly reduced labour costs at pre-security
- Compatible with majority of biometric identification technologies
- Increased throughput
- Provision of valuable passenger data and statistics
- Platform for implementation of accurate queue management

Whether the passenger holds a boarding pass printed at home or at the airport, uses a smart phone or is already geared up for NFC technology, the scanners in Gunnebo's gates can read any form of boarding pass quickly and reliably.

When combined with an integrated biometric identification system – for example, facial recognition – it is possible to execute a secure and hands-free ID check at the gate. This feature allows passengers to pass through the boarding pass check with their face as the only token, adding a new dimension of ease and security to the passenger experience.

In addition to fulfilling the obligation of checking boarding passes prior to the security check, Gunnebo's PreSec AFL provides many more benefits.

Through serial or TCP/IP based communication between the gates and the AODB (or any other database) valuable data can be collected and useful reports or statistics about passenger behaviour, peak-time traffic and the status of the gates can be generated.

With optional extension modules, it is even possible to use the PreSec gates for implementing a highly accurate queue management system.



PreSec gates at Billund Airport, Denmark

1 Pre-Security Boarding Pass Check

2 Lounge Access

3 Automated Self-Boarding

4 Immigration and Border Control

5 Airside to Landside Anti-Return

Lounge Access

Ensure your most valued customers receive a faultless service



2

Gunnebo LoungeSec - Benefits

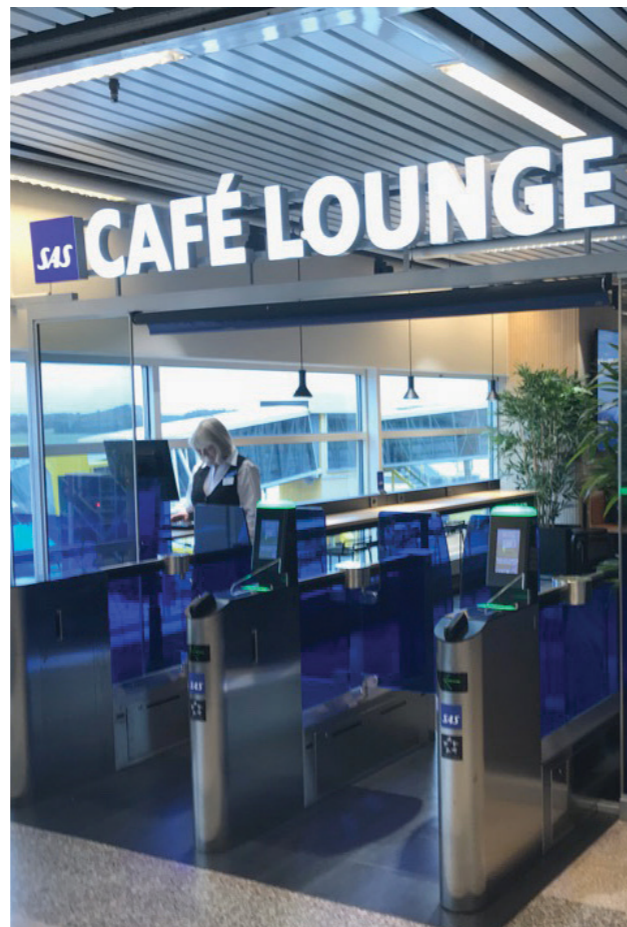
- Increased speed of service and convenience for important frequent flyer passengers
- Increased throughput
- Provides easy and fast access by avoiding inconvenient waiting times
- Ready for one-token hands-free passage with an optional facial recognition camera

The boarding pass, together with additional qualification credentials like frequent flyer cards, must be presented and scanned by passengers before entering a lounge operated by an airline or by the airport. This procedure is normally executed by an agent, but of course can be executed conveniently and quickly by passengers themselves using a Lounge Access AFL gate.

The Lounge Access AFL gate, connected to the database of the respective airline or lounge operator, provides the self-service that – especially frequent – travellers are used to and expect from a modern airport.

The installation of gates removes the time taken by agents working at the counter of a lounge to interact with passengers who have attempted to enter without the necessary permissions, as well as reducing the waiting times of passengers awaiting entry by offering a fast and direct route.

Combined with a biometric identification system such as a facial recognition camera, the Lounge Access AFL provides an even more convenient and simple access-check of passengers. The facial data can be captured while the passenger is approaching the gate and compared with the data stored in the airline or operator database. When enrolled it can also be compared with the data stored on the membership card.



Lounge Access gates at Malmö Airport, Sweden

Automated Self-Boarding

Enhance passenger experience and reduce boarding times



3

Gunnebo BoardSec - Benefits

- Huge saving costs in labour and avoidance of costly delays caused by boarding issues
- Flights can be closed earlier, shorter parking time
- Shorter waiting time for passengers
- Relief of manual work from agent who has more time for exception handling
- Fast, convenient and secure ID Check with biometric identification (e.g. facial)

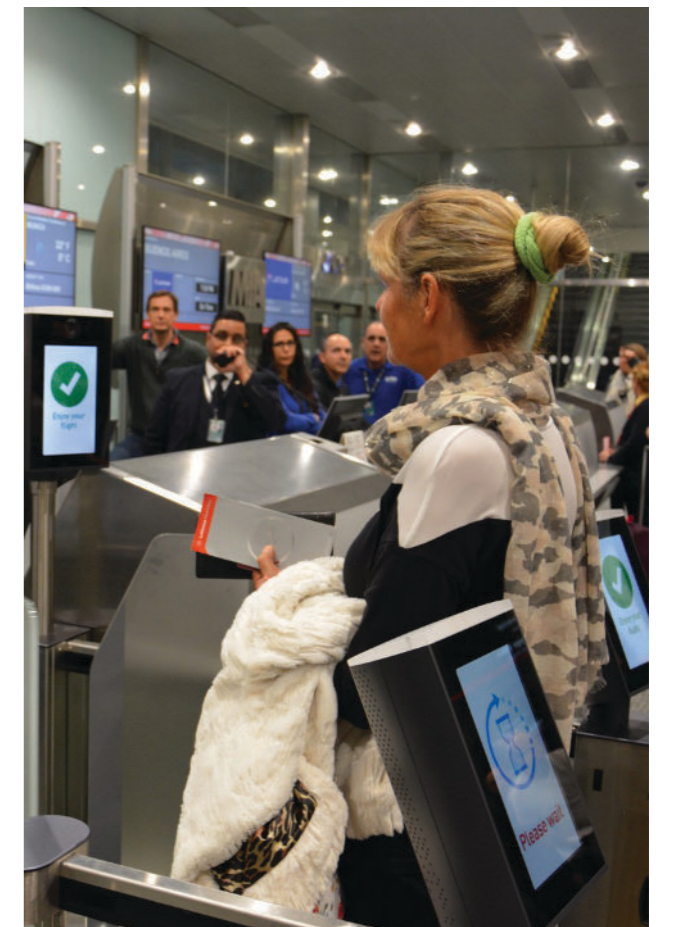
Checking the boarding pass of each individual passenger boarding an aircraft is a must for every airline. However, it is a requirement which demands the full attention of those responsible and can be costly in valuable staff time.

Using Gunnebo's BoardSec AFL gate the vast majority of passengers are able to check their boarding passes themselves. As with the manual BGR, the confirmation from the related airline host arrives almost instantly. Once received, the gate grants access allowing the passenger to move forward towards the aircraft.

The BoardSec AFL gate regulates the flow of passengers onto an aircraft in a safe and secure way, freeing up the valuable time of airport staff and enabling them to concentrate on those passengers that need extra attention and support.

Due to the certified full compliance with AEA 2007 - 2012 standards, the gate can be easily integrated into any Common-Use environment. Even an integration into dedicated environments can easily be realised.

Through the integration of an optional biometric identification system it is possible to use Gunnebo's gate not only for domestic but also for international flights. A comparison of the facial image against the enrolled biometric data provides a secure, fast and convenient ID-check inside the gate.



Biometric boarding gates at Miami Airport, USA

Immigration and Border Control

Maximise your resources with efficient verification of passengers



4

Gunnebo ImmSec - Benefits

- Accelerates the immigration process
- Automates the entry process and collection of data
- Increases security with integrated biometrics technology and single passage detection
- Minimises queues and queuing time
- Disabled compliant
- Ready for single token hands-free passage with an optional facial recognition camera

Border control is one of the most security sensitive areas in an airport. It requires accurate identification of incoming passengers.

Gunnebo's ImmSec immigration gate is an automated solution which accelerates the whole process, validating passengers' identities whilst ensuring that only one person is allowed entry per authorised passage.

Depending on government legislation, the ImmSec can be equipped with readers for smart ID cards, MRTDs and RFID passports, as well as biometric capture technology.

Due to its modular design, along with its combination of glass and steel, the ImmSec offers an elegant solution which is transparent, customisable and which integrates perfectly into the ambience of the airport.

Large glass panels encourage the passenger to feel at ease by reducing the 'physical barrier' effect of the gate. It provides a transparency and for the supervisor, a greater visibility of passengers inside the gate.

The ImmSec's slim and ergonomic modules allow the gate to be installed in single or multiple lane configurations, with a minimal footprint when installed. There is also an ability to use a bidirectional function for staff as well as be used by PRM (Persons with Reduced Mobility), including standard and wide passage.



ImmSec gates at Salvador Airport, Brazil

Airside to Landside Anti-Return

Secure passenger flow from airside to landside



5

Gunnebo PasSec - Benefits

- Controls passenger movement from secure to non-secure areas and prevents passage in the wrong direction
- Improves security with advanced detection system
- Allows high throughput with no passenger interaction
- Disabled compliant
- Sophisticated sensor detects presence, direction of movement and left or thrown items

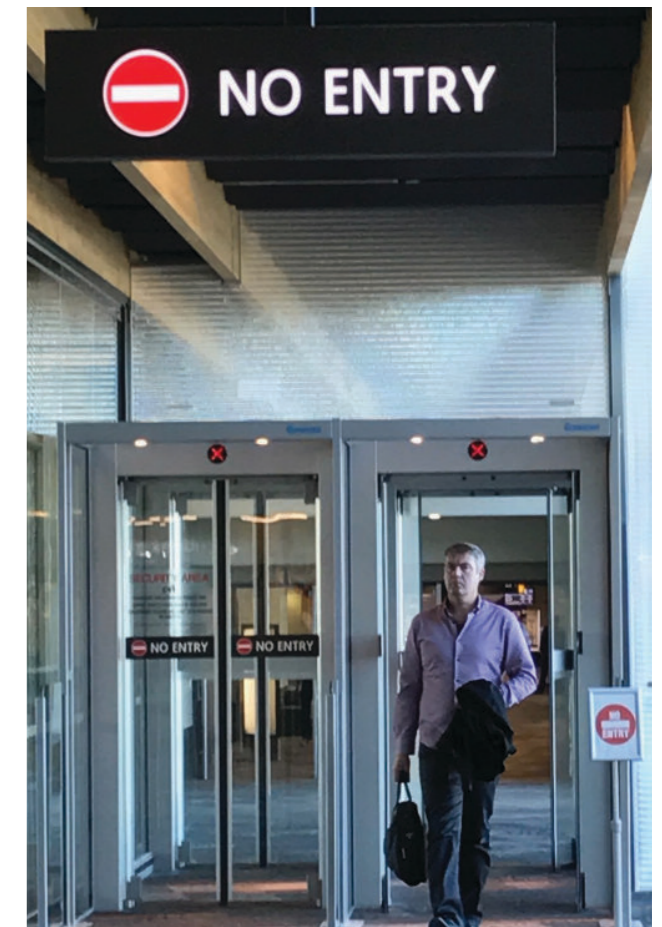
The PasSec anti-return gate is designed for airports or any mass transit location where there is a need to direct passenger flow in one direction.

Located ideally after Immigration control and before baggage reclaim to prevent passengers attempting to return back to airside, or after customs and before the open landside area, to prevent unauthorized access to the baggage claim and to duty-free areas by the general public.

PasSec is available in two different standard models: a single door (PasSec S) and a high security version with double doors and interlock corridor (PasSec HS). Both versions share a unique, elegant and minimalist design, with the HS model offering optional fast closing barriers for further improved security (S model includes fast closing barriers as standard).

Combining different technologies to achieve state of the art performances, PasSec passage detection algorithms constantly monitor the flow of persons through the monitored area until they exit, preventing attempts of access in the wrong direction or turn around inside the mantrap.

An alarm will be triggered in the event of door obstruction, wrong way/turnback scenarios, left items, thrown items or system diagnostic failure.



PasSec gates at Wellington Airport, New Zealand

Introducing “OneID”

For a seamless air passenger experience



One ID brings all stakeholders together in a streamlined and smooth ID process for efficient traveling and airport passage.

By creating a trusted chain for air passengers' identities throughout the airport process and beyond, many of today's aviation challenges can be solved.

The One ID concept is a collaborative identity management solution that spans all process steps and stakeholders in the end-to-end journey. Ultimately, it will improve airport operational efficiency as well as improve the travellers' customer experience.

The One ID concept is a streamlined and smooth process based on early validation of passenger identity at airports. Passenger identification (passport, ID) and flight data (boarding pass information) are collected and merged into a single identifier.

This identifier is then associated to the persons biometric, e.g. the face. When presenting their face at a relevant check-point (baggage drop, pre-security, lounge, immigration, boarding), the data associated to it is retrieved and distributed on a need to know basis to the relevant stakeholders

(airline, airport, immigration etc.) in order for each of them to validate the process. Once all processes validations are confirmed, the passenger is granted access.

Thanks to One ID, the passenger can transit through all the touchpoints without the need to present any document, just showing their face. The process is almost instantaneous and allows multiple checks in parallel, reducing queues and increasing throughput and security

Passengers expect a smooth passage through the airport. The airport strives for an efficient process where passengers arrive into and depart from the airport with maximum efficiency. Airline operators, in turn, aim for as short turn-around times as possible, as every minute an airplane stays on the ground only generates cost.

A manual passage process in total could take several hours at its worst, while the automatic process ideally will take only a few minutes at each touchpoint.

Global Customer Reference List

A selection of our worldwide airport installations



Europe and Middle-East

- Alicante Airport
- Arlanda Airport, Stockholm, Sweden
- Athens Airport
- Barcelona Airport
- Bilbao Airport
- Billund Airport
- Birmingham Airport
- Budapest Ferenc Liszt International Airport
- Geneva Airport
- Gothenburg Landvetter Airport, Sweden
- Hamburg Airport
- Luton Airport
- Lyon-Saint-Exupéry Airport
- Madrid-Barajas Airport
- Malmö Airport, Sweden
- Malta Airport
- Marseille Provence Airport
- Munich Airport
- Muscat Airport
- Nice Airport
- Oslo Airport, Norway
- Rome Airport
- Seville Airport
- Toulouse-Blagnac Airport
- Warsaw Airport

Asia-Pacific

- Beijing Capital International Airport
- Cebu Airport, Philippines
- Gimpo Airport, Seoul, South Korea
- Haikou Meilan Airport, China
- Hong Kong Airport
- Kuala Lumpur Airport
- Mumbai Airport
- Nanjing Lukou Airport, China
- Ngurah Rai Airport, Bali
- Qingdao Liuting International Airport
- Senai Airport, Malaysia
- Shanghai Hongqiao International Airport
- Shanghai Pudong International Airport
- Shenzhen Airport
- Siem Reap Airport, Cambodia
- Sydney Airport
- Wellington Airport

Americas

- Boston Airport
- Miami Airport
- New York (JFK) Airport
- Orlando International Airport
- Salvador Airport, Brazil
- Tocumen International Airport, Panama
- Toronto Airport

Airport Security Solutions



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