



Public Security  
& Identity

# IDEMIA Fast and Seamless Travel

Easier to travel: IDEMIA facilitating FAST travel through Singapore's Changi Airport Terminal 4

Singapore's Changi International Airport is one of the busiest hubs in Asia. Getting passengers processed through passport control and onto their flights quickly and smoothly is an exercise in security, automation, user experience and technology. Key to this process is IDEMIA's expertise in biometrics, border control and system integration.

## The Challenge: Improving the World's Best Airport

In 2018, for the 6<sup>th</sup> year in a row, Singapore Changi Airport was ranked the world's number 1 airport. At the same time, Changi Terminal 4 was completed in 2017 with the goal of redefining the travel experience.

With an annual passenger carrying capacity of 16 million passengers, a clear focus on convenience for bag drop, airside clearance and passport control, and boarding was required.

While passenger convenience was seen as the top focus, this could not be at the expense of security. Continued vigilance

against terrorism threats and criminal activity were of the utmost importance whatever solution was chosen.

Terminal 4 was designed to introduce a fully automated departure process. FAST (Fast And Seamless Travel) is the guiding principle behind the processes that combine these competing priorities of convenience and security.

The technology implemented at Terminal 4 is also intended to act as a *test bed* for the planned Terminal 5, expected to be larger than Terminals 1 and 3 combined.



## ZOOM ON SINGAPORE

**Population:** 5,888,926

**Land:** 719.2 km<sup>2</sup>

Singapore has a highly developed and successful free-market economy. It enjoys a remarkably open and innovative environment, stable prices, and a per capita GDP higher than most developed countries.

Singapore has striven to be seen as leading the world's smart cities through infrastructure projects such as smart and connected traffic solutions, digital healthcare initiatives and encouraging digital innovation.

It is the culture behind Singapore's Smart Nation initiative that has spurred the adoption of innovation within Changi Terminal 4.

*"We partnered with IDEMIA to deploy this integrated passenger processing system with the objective of transforming the passenger experience. It's the first time that facial recognition technology is used at Changi Airport. The solution eliminates the need for manual identity verification by staff."*

**Steve LEE,**  
Chief Information Officer & Group SVP (Technology)  
at Changi Airport Group

*"Implementing new systems and new products at the scale of an Airport Terminal, while meeting the customer timeline of course, requires a proven method throughout system implementation and project lifecycle. IDEMIA has relied on its processes to deliver systems running smoothly since Day 1."*

**Gwenael KERLEROUX,**  
IDEMIA Program Manager for Public Security



## Results

- › Terminal 4 **opened in October 2017**, and the IDEMIA solution has since processed **over 8 million passengers**.
- › IDEMIA's solutions have assisted Changi Airport in attaining **shorter queues and more satisfied passengers**. Changi has also been able to reduce the resources required to process passengers.

## Calling in the Experts

With experience in biometrics and automated border control, IDEMIA was well suited to provide a solution for Singapore Changi Airport.

IDEMIA's solution involves three main products:

- › Biometric capture of passengers to facilitate automated bag drop, immigration and boarding
- › Automated immigration and boarding gates
- › Passenger process facilitation platform, linking various airport and airline systems

IDEMIA's world-leading biometric algorithms support fast capture and accurate matching of the

passenger's identity. Passenger verification at the automated boarding gates uses the already captured passenger's facial biometrics from emigration.

Several world-firsts were achieved in this project, including the first terminal-wide implementation of an automated boarding solution. While several concepts have been explored elsewhere, this is the first in production in the world.

A specific focus was put on integrating the look and feel of the new terminal and on meeting the needs of separate agencies while presenting a seamless process to the passenger.

IDEMIA has further supported Changi Airport Group and the Immigration and Checkpoints

Authority through the development of mobile apps that are used by Immigration officers and airport staff to assist passengers as they move through the various checkpoints.

The mobile apps assist officers when they are required to intervene and manage startup/shutdown and security alarms at gates. Officers can move around on site with the authority to verify passenger identities when required.



## Benefits

### Customers

- › Enhances the image of Changi Airport
- › Faster processing of passengers allows for more time to enjoy the terminal facilities
- › Greater, non-intrusive security
- › Ability to re-deploy staff to customer service roles
- › Better optimization of operating costs

### Passengers

- › Faster processing and combining separate touchpoints into one solution means a more pleasurable experience of traveling
- › Automated systems reduce language barriers and the need to provide multiple documents at multiple checkpoints
- › Business travelers can arrive closer to flight time or get more work done in airline lounges

