In Singapore's Changi Airport Terminal 4, IDEMIA fast and seamless travel

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.

 # TRAVEL

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The challenge: improving the world's best



In 2018, for the 6th 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 upmost 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.

> *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 system 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

Call 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 3 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 airlines 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 biometric 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 in 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.

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.

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 optimisation of operating costs

Passengers

- Faster processing and combining separate touchpoints into one solution means a more pleasurable experience of travelling

- Automated systems reduce language barriers and the need to provide multiple documents at multiple checkpoints
- Business travellers can arrive closer to flight time or get more work done in airline lounges