AMID growing air travel demand, the Airports Council International (ACI) and the International Air Transport Association (Iata) have launched the New Experience in Travel and Technologies (NEXTT) initiative, which aims to tap the latest technologies to improve the travel and airport experience.

Some enterprising airports, airlines and other aviation stakeholders, such as ground-handlers, are already testing out cutting-edge concepts, which could become a reality by 2020. In addition to a smoother passenger journey, it could reap efficiencies, cost-savings or boost ancillary revenues for aviation players. It could also help airlines and airports improve safety and security.

By 2036, Asia is expected to handle over 3.5 billion passengers. Such rising passenger numbers will put stress on existing operations and processes, but technology can improve passenger flow and speed up processing, says IT group SITA.

BY NISHA RAMCHANDANI

FLY ME TO THE FUTURE

WELCOME

PRIOR TO ARRIVAL AT AIRPORT

Upon booking, validated passenger information is communicated to airlines and government. Passengers are also informed ahead of time about the necessary requirements, such as visas and vaccinations.

- Mobile app keeps passengers informed about delays, gate changes and airport maps throughout the journey.
- Passengers can have their baggage picked up or dropped off at a designated spot. Baggage is linked to the passenger identity and tracked throughout the journey.

MOBILE APP
Passengers receive location-based updates, such as airport maps, walking time to the gate, offers for airport retail goods and services, flight status, as well as options to pre-select onboard food and entertainment.

AT THE AIRPORT

BAG DROP
Passengers drop off their bags with the built-in bag ID at the bag drop. Aviation IT specialist SITA's robot, LEO, picks up baggage from anywhere within the terminal, while check-in robot KATE helps passengers check in on the spot – alleviating counter queues.

Bag drop

LEO

BIOMETRIC CAPTURE
Verification of passenger's identity can occur at various entry points at the airport such as the car park or terminal.

SCANNING
Passenger proceeds through a scanner; carry-on baggage will pass through an advanced baggage screening system.

- For baggage, a record will be created at transfer points and the final destination; this will be linked to the passenger's travel profile. Border control and authorities at airports can use this information to clear the bag in advance.

IMMIGRATION
Biometrics will be captured 'on the fly' to verify passenger identity. Passenger will either be cleared or referred to a secondary border inspection.

Passengers may be bused over to the aircraft in an autonomous vehicle.

- At boarding gate, biometrics will be used to verify passenger identity 'on the fly' to enable walking pace boarding. Once identity is confirmed, the passenger can board the plane.

IN-FLIGHT

Passengers will be able to:
- Make changes to their ongoing journey.
- Shop onboard for delivery at destination or a location of choice.
- Access information on the arrival airport or other ancillary services such as hotels and taxis.
- Choose entertainment or food options.

AT CONNECTING AIRPORTS

- Passengers receive notifications through their mobile devices on changes to their gate or connecting flights, as well as updates on their baggage.
- In case of flight distruptions, flight re-booking can be done through mobile devices.

ARRIVAL

- Passengers will be pre-vetted based on travel patterns and profile information supplied by the departing airport. Upon arrival, biometrics will be captured on-the-fly for identification. Pre-selected passengers will be flagged for secondary immigration.
- Passengers may opt for off-airport baggage delivery at a time and place of their choosing, so they have a baggage-free arrival experience.