A smarter Air Traffic Industry with Digital Age Communications

Alcatel-Lucent Enterprise delivers flexible, secure and highly available Digital Age Communications to move from connected to smart airports.

According to the International Air Transport Association (IATA), pre-pandemic figures indicated more than 100,000 commercial aviation flights were taking off and landing everyday, transporting on average one million people over 54,000 routes.

As life returns to normal, and the airline industry course corrects, continued growth is expected into the foreseeable future. In fact, experts predict that travel demand will double over the next 20 years. However, the down-side is that emissions from increased air travel could triple from pre-pandemic levels by 2050, as suggested by a World Wildlife Fund (WWF) report.

In the Air Transport Industry (ATI) sector, the passenger journey is a vital process that links the traveller with airports and airlines — from booking travel, to arrival at the destination.

This journey covers travel to the airport, navigation through the airport, boarding the plane, waiting in line at baggage claim, and may continue even after arrival.

The passenger journey is embracing digital transformation to move from a 'disconnected' to a 'connected' passenger experience to satisfy new expectations such as real-time information, simplification of tasks at each step along the journey. At the same time, digital transformation is accelerating the ATI operators' evolution as they make the move from connected to smart airports and airlines.

A smart airport relies on connectivity, digitalisation, and real-time communications and collaboration. Tackling these challenges requires three key areas of improvement:

- **Passenger experience**
- **Operational efficiency**
- **Safety and security**

ALE is here to help

Alcatel-Lucent Enterprise provides the technology building blocks to interconnect transportation sub-systems and offer innovative and smarter services. Those building blocks include professional services, data networks, voice communications and cloud collaboration solutions.

Alcatel·Lucent
Enterprise

Improving the passenger experience

Digitalisation supports new forms of interaction with passengers, including enriching applications with contextual information and providing the right assistance to ensure a trouble-free, safe journey. Transportation operators are developing innovative applications that allow passengers to better plan their journey and improve their experiences across the different steps of the journey.

- User-centric services
- Digital interactions
- Real-time information and communications

Improving the passenger experience at the airport is key. That's why applications that help the passenger move easily through the facilities are important. Applications such as indoor location, wayfinding can help passengers find a store, the parking lot, and the best way to get to their boarding gate, at the right time. However even these services are not enough. The real value in the passenger environment are the communication services. With Communications Platform As a Service (CPaaS) capabilities, passengers benefit from real-time multimedia interactions, for assistance, directly from their travel apps.

A good passenger experience requires the assistance staff to have the right tools. Alcatel-Lucent Enterprise provides solutions for a seamless **Digital Workplace**, enabling employees to successfully work from anywhere with the right apps and devices including:

- Innovative desk phones and mobile DECT handsets
- Automated and customised passenger welcome greetings
- Call taking/dispatching console
- Real-time passenger interaction through integrated multimedia communications (IM, voice to video) with Rainbow™ by Alcatel-Lucent Enterprise
- APIs to integrate with business applications to enable a call-to-action
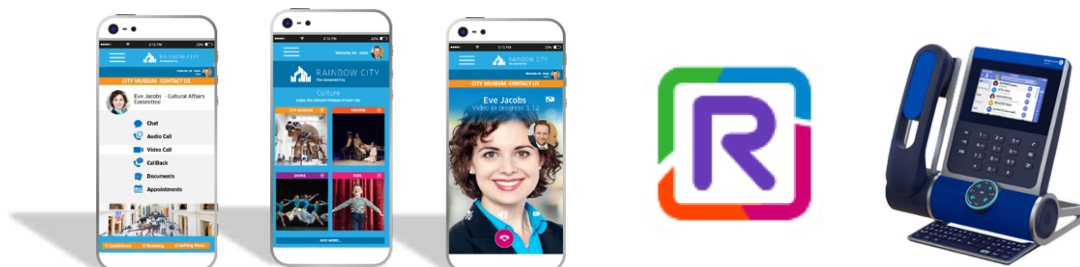
Solution sheet
A smarter Air Traffic Industry with Digital Age Communications

Enhancing operational efficiency

To optimise airport, airline, or air traffic operations, real-time collaboration between stakeholders is vital to enhance decision-making. To this end, integrating communications services through a Communications-as-a-Service (CPaaS) solution, with business processes, can greatly improve real-time interactions.

Operational level efficiencies are enhanced with the Internet of Things (IoT). Capturing data and automating processes through IoT offers improved visibility related to mechanical defects or incidents, which can help simplify maintenance.

With the Alcatel-Lucent Enterprise **Connecting Everything** approach, **IoT adoption** is made easy through solutions that enable:

- Bidirectional communications between devices and people
- Notification from different sensors over a wide range of devices
- Coordinated calls-to-action to improve and automate business processes
- Reinforced security with the use of Artificial Intelligence (AI) to help with decision-making through data analysis of contextual information

More and more airports and airlines are being required to adhere to regulations regarding aiding People with Reduced Mobility (PRM). Inefficiencies in today's PRM service can cause flight delays and incur additional costs for airlines and airports.

Service for PRM users can be improved and eased with digital interactions through CPaaS such as chat bots for service reservation and pre-qualification, as well as easy access to assets and locations, and real-time assistance from PRM agents.

IT teams benefit from operational efficiency. **Flexible cloud models** help ATI operators embrace innovation by offering a wide range of private, public, or hybrid cloud communications solutions to provide innovative, new services with lower upfront costs. Rainbow cloud-based solutions also leverage interactions with AI and BOTs, as well as data from IoT devices and business systems for more informed, accurate, and faster decision-making.

Increasing safety and security

Voice communication is mission-critical for ATI operators to ensure passenger and staff safety and operational security. To meet these requirements Alcatel-Lucent Enterprise delivers a:

- Highly available, robust and resilient architecture ensuring non-stop operations and business continuity
- Future-proofed, evolving communications platform providing investment protection and smooth transition to new business models.

The ability to handle emergency situations is vital for air transport operators, specifically when an aviation incident occurs.

Collaboration and coordination between stakeholders including the rescue teams, families, authorities, medical services, communication media and governments is imperative to provide assistance in a timely manner.

Efficient call processing at the command center is key in the success of the operation. The right dispatch console solution to manage call taking and dispatching provides operators with the information they require for effective decision-making in times of crisis.

ALE also offers a rich set of advanced digital solutions that:

- Enhance security through alarm notification servers
- Improve crisis management using emergency notification and broadcast solutions
- Provide conversation and screen activity recording
- Enable the integration of communications with the Operations Control Centre (OCC) ecosystem through a complete set of APIs
- Improve on-site intervention using multimedia collaboration between experts and on-site technicians
- Enable incident reporting using Emergency Call Points

Alcatel·Lucent
Enterprise