



## Improve the travelers' experience Meeting customer expectations

in a digital age

## Modern challenges in transportation

Transportation organizations are looking at wireless technology to help transform their services to meet today's challenges.

## Creating a mobility center inside your travel hub

Everyone expects wireless mobility that provides a high quality experience – but delivering that from arrival to departure in your transportation system is highly complex. Customers want the mobile services that make their life easier such as personalized promotions and navigation guides. Operators want to be able to handle more people, making the customer journey as secure and comfortable as possible, while reducing cost and risk. And all of this depends on the network.

#### The passenger experience

In transportation, as in most industries, the customer comes first. Increasingly, customers also expect a better experience. Passenger management starts before the journey with eticketing to save money and booking online to save time. It continues on the journey to the departure point, baggage areas, and security checks. And finishes with the follow-up post-travel engagement.

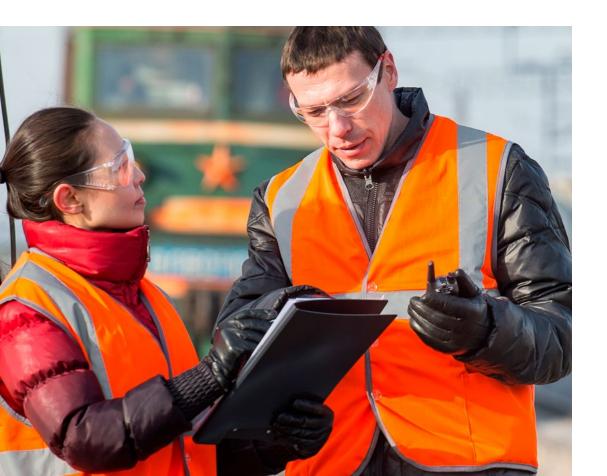
#### **Operational efficiency**

As well as ensuring high availability of mission-critical services, an efficient transportation system needs to encourage staff collaboration, have simplified network and device management, and enable real-time operational and business data collection. Decisions can be made faster and better with accurate data.



#### Safety and security

Most importantly, the network is essential for safety and security, especially in the event of an incident that requires emergency communications. Incorporating IoT devices provides the intelligence to improve security, while cutting costs. Smart sensors can be used to monitor and manage everything from energy use to intrusion or motion detection in secure areas.





#### Transportation in a digital world

ALE's network architecture provides the digital foundation for passenger and staff mobility as well as secure, innovative transportation services. It uses only one network where traditionally, there would be several. Each service is part of the same network infrastructure, but they are kept separate by being in a virtual container.

So booking systems, security systems, passenger signage, and administration can all be kept logically separate. This use of virtual containers not only dramatically reduces costs but also simplifies management and increases security.

In addition, the Alcatel-Lucent OmniAccess® Stellar WLAN solution works harder for you by uniquely combining this IoT containment for Wi-Fi with unified access, distributed intelligent architecture, location services, smart analytics and intelligent fabric.



#### **Staying on track**

By 2020 more than 30% of enterprises will use location services to track staff or assets, three times the current level.

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### Location services to boost retail revenues

Retail revenues are important in all transport hubs. In fact, up to a third of revenue at airports comes from retail outlets. The wireless LAN can be used to create personalized services including:



#### **Wayfinding**

Showing travelers how to get to the gate, a platform or the various amenities around them.

#### **Retail promotion**

Sending personalized ads from retail outlets, such as discounts on certain foods or goods, two for one offers, and the like - to increase sales and ultimately revenue.

#### **Identifying customers**

Using geofencing, which sets up a perimeter where you can see who is entering or leaving and the time spent at a particular location.

#### **Analytics**

Analyzing the data to generate revenue by identifying new business opportunities for retailers and transport operators. Analytics show information such as: how much traffic is going through different locations, when passengers visit, how long they stay, what path they take and whether they return. Similarly, analysis of the real-time data from IoT devices around airports, stations and roads can help identify problems before they cause delays or accidents, and warn when maintenance is needed, such as for an overheating device or burst pipe.





#### One network, many benefits

The growing use of mobile devices and the IoT make security vital, as dealing with a cyberattack is costly and complex. No single approach can provide full security, so strength-in-depth is needed.

With our global reach and local focus, the ALE approach is to minimize risks by protection at all levels – including the network, devices, users and applications – and simplify management to increase efficiency and lower costs:

More secure operations – with IoT containment, which creates one network made up of individual virtual networks it's possible to automate the secure onboarding and management of any connected "things."

One consistent user experience – unified access provides secure connection to both the wired and wireless LAN (when used with Alcatel-Lucent Enterprise LAN solution). What can be accessed, where and when can be changed according to the user profile – enabling you to attach different services according to the passengers' status (frequent traveler, VIP, etc.) or employee's role.

**Time-saving automation** – using Intelligent Fabric (iFab) to get your operational teams working faster, with self-healing networks, for greater resilience, and the automation of manual tasks, such as device discovery.

**Develop new business streams with smart analytics** – visibility over network, devices and applications provides the insight for greater protection of your transportation hub. It also shows which services travelers use so the business can develop new services to meet their preferences.

#### **Network-as-a-Service**

Connected passengers who expect services such as real-time travel updates or on-demand entertainment, can put a strain on the network. Cloud-based network-as-a-service solutions offer the chance to scale quickly to meet peaks in demand and pay by network usage.



## Mobility for the digital age traveler

At the heart of mobility for transportation is the wireless LAN.

OmniAccess Stellar WLAN offers enterprise-grade features and operational simplicity, as well as a low total cost of ownership (TCO). This includes:

- Next generation access points (APs) 802.11ac Wave 2
   APs with gigabit and multi-gigabit Ethernet connectivity.
   These support:
  - High-speed Wi-Fi for a better user experience
  - Higher density of devices so there's no dip in performance however many users connect
- Embedded Bluetooth low energy beacons support location-based services
- Wave 1 APs specially designed for SMBs
- Indoor and outdoor (ruggedized) models
- Distributed intelligent control instead of a physical centralized controller. This ensures:
  - Automatic optimization of the radio frequency
  - Selection of the best channel to avoid interference
  - More bandwidth to connect more users through band steering
  - Smart load balancing automatically connects devices to the best APs
  - Optimal support for all clients (even older ones)
  - Automatic management of APs for easy scalability

#### **Keeping transportation on the move**

The OmniAccess Stellar WLAN solution provides transportation systems with an efficient, cost-effective and scalable way to meet the mobility needs of travelers and staff alike.

- Easy connectivity
- A seamless user experience, with the best quality of service, through a cloud managed unified network (wired and wireless when used with Alcatel-Lucent Enterprise LAN solution)
- Better performance and high availability, while reducing complexity and lowering TCO
- High-speed Wi-Fi and better radio coverage for easier growth
- Emerging technologies and services future-proof wireless network investment

To find out how to deliver better mobility for transportation explore Alcatel-Lucent OmniAccess Stellar WLAN. Visit: https://www.al-enterprise.com/en/stellar-mobility-wifi

#### **Transportation Solution brief**

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# ALE | Where Everything Connects

#### **Connected Transportation**

Where your customers connect for the best transport experience. Where you connect securely for speed, comfort and safety. Where your transportation infrastructure connects to enhance communications, security and efficiency.

