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Aruba Case Study

ORLANDO INTERNATIONAL AIRPORT

Aruba WLAN with ClearPass and AirWave, plus Aruba's Mobile Engagement solution using Aruba Beacons and a Meridian-powered mobile app, improves operations and traveler experiences at Orlando International.

ORLANDO INTERNATIONAL AIRPORT
The Orlando Experience®

> Our Aruba WLAN, along with our Aruba Mobile Engagement solution, is important to airport operations and improved traveler experiences.
> JOHN NEWSOME, DIRECTOR OF INFORMATION TECHNOLOGY, GREATER ORLANDO AVIATION AUTHORITY

Ensuring 35 million annual travelers, 18,000 employees, nearly 40 airlines and over 100 food, beverage and retail tenants have high-quality wireless access for a mixture of business, operational and personal needs is one of John Newsome's top priorities.

"Although air travelers expect very robust airport Wi-Fi experiences, satisfying that demand is only one driver for us," says Newsome, Director of Information Technology at the Greater Orlando Aviation Authority (GOAA), the governing body for the Orlando International Airport (MCO).

"Our primary wireless networking imperative is to provide operational support," he explains. "This includes airport, airline and other tenant operations, as our infrastructure is important to all."

Like all world-class aviation facilities, MCO is at the forefront of each new wave of Wi-Fi devices and standards, such as 802.11ac.

"Due to the many challenges and demands, the requisite reliability, security, scalability and performance of our enterprise WLAN is essential," Newsome says. "Plus, we need leading-edge capabilities to develop and offer innovativemobile apps that benefit travelers, airlines, vendors and the airport."

Aruba 802.11ac WLAN and Mobile Engagement Solution Boost Mobility

To meet current needs and prepare for even greater future mobile dependency, the GOAA decided to upgrade its wireless infrastructure. This included moving to Gigabit Wi-Fi infrastructure and introducing an advanced new MCO Mobile App with real-time traveler assistance.

"Because we're the number one family destination in the U.S. and the second largest convention center in the U.S., we have a broad mix of visitors," Newsome says. "Our new app helps improve all types of travel experiences."

The airport, which generates $26 billion in direct and indirect revenue for the regional economy, continues to extend and develop its wireless infrastructure to meet the needs of its #GenMobile constituency. #GenMobile are the new breed of technology users defined by their strong preference for mobility.

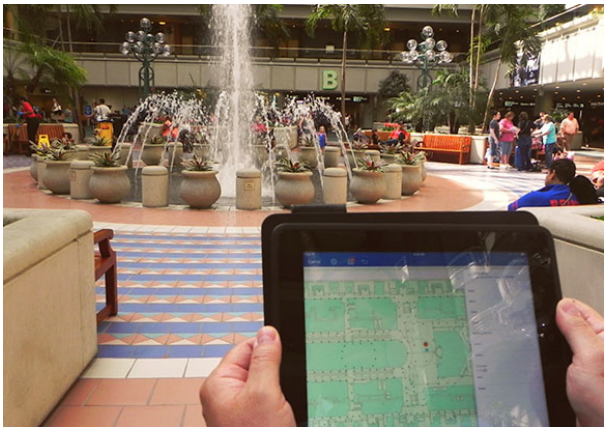
ClientMatch Intelligence Enables Seamless Hand-offs

For WLAN infrastructure, the GOAA elected to deploy 802.11acenabled Aruba APs, with the built-in intelligence ClientMatch. This technology continuously gathers session performance metrics from mobile devices to steer each device to the closest and best possible AP, enabling seamless transitions throughout the enabled buildings.

"With people moving throughout our very large venue, the hand-offs from one access point to another need to be very smooth and non-disruptive," says Newsome, of the airport's 13,000-acre facility, including a terminal complex of 150,000 square feet.

Beacons and Meridian Deliver Real-Time Indoor Navigation

Using Aruba's Meridian Mobile App Platform, Orlando International developed its location-aware MCO Mobile App. To power the app's location awareness, the airport has deployed at total of about 900 Aruba Beacons, which utilize Bluetooth Low-Energy (BLE) technology for indoor positioning, and plans to increase that number.



Meridian App Gives Turn-by-Turn Directions

Introduced in December to aid holiday travel, the airport's new mobile app provides location-aware

navigation to assist travelers with finding their gate
and services close to them.

“Our new app helps people find everything from an ATM machine to water fountains,” Newsome says. “After a user permits location visibility, the app identifies an individual’s location and then displays a route on the app’s map interface. Not only that, but an on-screen blue dot traces the path, providing turn-by-turn directions to help a person get there.”

The app also supplies flight status, for all airlines, just like on the traditional airport signboards, as well as displaying amenities like dining, shopping and lodging.

As expected, Newsome reports app adoption has been strong. “About 2,600 passengers downloaded the app within the first few weeks of deployment,” he says.

Airport Combines Airwave and Clearpass for Performance and Security

Other critical Aruba technologies deployed at Orlando International include vendor-agnostic wireless management tools. These included AirWave network management, for optimizing performance, and ClearPass Policy Management, for the robust security features of a wired network in a wireless environment.

AirWave Improves WLAN Optimization While Reducing Operational Costs

With AirWave, Newsome’s team gains a map-like presentation of every AP on the airport’s WLAN, which presents granular, real-time and historical information for ensuring overall network health while minimizing operational costs.

Aruba-Enabled Mobility Is Vital to Modern Operations

While Orlando International’s new Meridian-powered app assists visitors, Newsome explains how GOAA’s Aruba based WLAN is integral to modern airport and tenant operations. “For instance, GOAA Operations personnel use Wi-Fi
connected notebooks for airfield inspections and condition reports,” he says.”

“Further,” Newsome adds, “development is in progress to enable our maintenance personnel to use Wi-Fi connected tablets to review work orders, report work order status and access instruction manuals.”

Airport Tenants Also Rely on Aruba Wi-Fi Newsome also points out that the airport supplies secure, high-availability Aruba wireless networking to its tenants. “One example is airlines using Wi-Fi for baggage reconciliation outside on the ramp areas,” he says. “Another is gate agents using a tablet to assist people standing in line with the check-in process.”

According to Newsome, each of these illustrations shows how the airport and its tenants depend on secure, reliable Wi-Fi access. “Our WLAN helps improve processes, save time and make travel

experiences better," he says.

Aruba Infrastructure Takes Transportation Plans Into The Future

Aruba Wi-Fi also supports future GOAA plans, such as extending the WLAN to cover a train station and major parking facility the agency is building.

Once the new facilities are completed and operational, Orlando International's mobile app will become even more vital, he adds. "It will help answer people's questions, link them with information services and provide them with a positive travel experience," Newsome says.

Beacons will also play a key role. "I think we're just scratching the surface for how we can use them," Newsome acknowledges. "For example, a beacon with a vibration or temperature sensor could be integrated into a piece of electromechanical equipment and provide an alert in case of abnormal operations or trends."

Robust Wi-Fi Now Critical to Aviation Ground Services

For others considering a Wi-Fi modernization, Newsome offers a few tips. "Design and build a very robust extension of your wired infrastructure," he suggests. "Provide for growth, security and reliability. Over such a wireless network, you can operate whatever kind of services your organization needs."

BENEFITS

- Scalable and pervasive WLAN, with 802.11ac APs and ClientMatch, enables seamless Wi-Fi experiences as users move through enabled areas the 13,000-acre facility.
- Enables a new mobile app, built using the Aruba Meridian AppMaker platform, to give travelers location-aware indoor navigation for finding gates, amenities and other points of interest.
- Beacons leverage Bluetooth Low-Energy (BLE) to power proximity-aware mobile engagement services.
- Enterprise WLAN optimization tool AirWave provides centralized network management.
- ClearPass Access Management System, with ClearPass Guest, provides secure wireless mobility for visitors and facility operations.