Transforming Airport Experience

Lynden Pindling International Airport improves efficiency, security, and service quality.

Customer Name: Nassau Airport Development Company

Industry: Transportation

Location: The Bahamas

Number of Employees: 165

Business Impact

- More attractive proposition for airlines and tenants
- Improved efficiency of airport operations
- New revenue opportunities from reselling telecommunications services

Case Study

Business Challenge

Named after the country's former prime minister, Lynden Pindling International Airport (LPIA) is the largest gateway into The Bahamas. The publicly owned airport is transforming as part of the government's vision to promote the island as a travel and business destination of choice.

Nassau Airport Development (NAD) Company is at the center of this innovation, overseeing an extensive expansion and modernization program. The redevelopment aims to deliver world-class airport facilities, while also increasing terminal capacity.

Once complete, the US$409 million investment will create 585,000 square feet of terminal space, a 21 percent increase, as well as the ability to accommodate 50 percent more passengers. It will also include the addition of 34 gates, including one capable of handling the Airbus A380. In all, this expansion will provide LPIA with the capacity to serve more than five million passengers annually.

In terms of the IT infrastructure required to run the airport, the starting point was fragmented and complex. With the interests of over 40 stakeholders (airlines and tenants) to consider, the airport's previous IT approach was largely driven by investment in point technology solutions.

This approach led to the creation of an expensive IT estate of separate (voice, data, video, and wireless) networks, isolated management systems (such as closed-circuit television [CCTV], video, and building management), and a proliferation of databases (including Flight Information Display System, Airports Operational Database, Baggage Handling System, and Homeland Security) that could not interconnect or communicate with each other, because they had been built using closed or proprietary technologies.

For NAD, the challenge was to find a complete solution. "We wanted to migrate to a common-use IP infrastructure," says Dwight Butler, Manager, IT & Electronics for Nassau Airport Development Company. "One based on an end-to-end architectural approach that connected airport operations and optimized business processes. We could not afford to leave anything to chance, so it was important to appoint a trusted partner with a track record in handling major IT projects of this kind."

Solution and Results

In response, NAD issued a tender to several leading service providers, and the proposal from Cisco was accepted and delivered. "With Cisco, we got a world-class IT solution, implemented with all the care of a local touch delivery model," says Butler. "Moreover, Cisco shared our vision for using the network as a platform for delivering a more effective, secure, less costly, and increasingly passenger-friendly environment."

"Cisco Borderless Network Architecture allows us to optimize the various elements that define the customer's experience. This starts the moment they set off to the airport, through to parking and rental return, arrival and check-in, customs and immigration, and boarding."

Dwight Butler
Manager, IT & Electronics, Nassau Airport Development Company

Transforming Airport Experience

Continued

Case Study

Based on a Cisco® Borderless Network architectural design, the solution delivers the critical network services that underpin video, energy management, security, mobility, and application performance, on an end-to-end basis. This approach helps ensure a consistent and high-quality user experience, which is always on, smooth and reliable, regardless of location or device type.

Importantly, by combining a wired and wireless infrastructure with proven industry solutions from other Cisco ecosystem partners, the Cisco Borderless Network Architecture helps airports meet the parallel demands of safety, security, service, and capacity. This solution is achieved by using the Cisco architecture as a foundation to integrate people, processes, information, and tools, more closely, and in ways that were simply not possible before.

"By optimizing the network and the services that run over it, the Cisco Borderless Network Architecture allows us to optimize the various elements that define the customer's experience," says Butler. "This starts the moment they set off to the airport, through to parking and rental return, arrival and check-in, customs and immigration, and boarding."

A key feature of this smooth passenger experience is the United States Departures Terminal, which provides border security pre-clearance facilities, allowing flights to operate as domestic flights upon arrival within the United States.

Airlines are noticing the difference. With the airport's agile infrastructure, the airlines can take advantage of common-use gates that come pre-provisioned with IT services and can be rapidly adapted to address the airline's individual needs for connectivity, branding, self-service boarding, and signage.

The solution boosts airport security by enabling traditional security systems (such as video surveillance, access control, and baggage scanning) to be augmented with next-generation technologies, such as biometrics, smart cards, and explosive detection systems. CCTV cameras can be relocated faster and cheaper by using existing Power over Ethernet power supplies.

The airport also benefits from the latest innovations in intelligent IP networking. Unlike conventional IP infrastructures, Cisco Medianet can detect and recognize the types of rich media traveling over fixed and wireless networks, thereby greatly simplifying configuration and management and helping ensure that they are transmitted to end devices in the most optimal way possible. As well as using the network to centralize building management systems, the airport also has the option of introducing Cisco EnergyWise to better track and control energy consumption across the airport network and, potentially, any powered device.

With fewer points of management and better visibility and control of the network, the airport can deliver IT services at a lower total cost of ownership.

By implementing a Cisco Unified Wireless Network, BGC has helped to turn the airport lounge and common areas into one large mobile hotspot. Currently available for use by travellers, the wireless network provides the infrastructure on which retail improvements and personalized information systems can be deployed.

Butler says: "Airports must become service providers. Wireless opens up exciting opportunities for creating value-added services for passengers and retailers. For example, a real-time, virtual concierge service that delivers flight and journey information prior to travel and throughout the journey until the passenger returns home. Or new services that reduce queues, make for more relaxed passengers, and create as much time to shop as possible."

For More Information

To learn more about Cisco is helping airports to transform, please go here

For more information on Borderless Networks, please go here

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