Leading Canadian Airport Gains Mobile Advantage

The Québec City Jean Lesage International Airport deploys Cisco Unified Wireless Network to support advanced applications and improve passenger experience.

EXECUTIVE SUMMARY
QUÉBEC CITY JEAN LESAGE INTERNATIONAL AIRPORT
• Air travel
• Quebec City, Canada
• 85 employees
BUSINESS CHALLENGE
• Deploy an integrated communication platform to automate and enhance passenger services
• Create a common-use facility, enabling all airlines to use one unified network solution
• Adopt a wireless network that could provide the reliability, scalability, and performance to support advanced airport applications
NETWORK SOLUTION
• 802.11n wireless network provides guest access for passengers and mobility to airport staff
• Wireless IP phones keep airline personnel connected throughout the airport
• One integrated wired-wireless network with unified communications enables airlines to use the same counter space at different times
BUSINESS RESULTS
• Improved passenger satisfaction, increased traffic through the Quebec City International Airport, and gained a competitive edge
• Constant connectivity streamlines operations and passenger flow, improving the airport experience
• Increased throughput and performance make it possible to deploy a wide range of new airport applications that optimize resources, streamline processes, and improve service

Business Challenge

Part of Canada's National Airport System, Québec City Jean Lesage International Airport provides air services to passengers traveling to and from Quebec City and Eastern Quebec. Offering more than 375 weekly flights to North America, South America, and Europe, the airport processes more than 1,000,000 passengers annually. To best support this traffic, the airport relies on a strong technology infrastructure. "Our commitment to passengers first means we need the right technology in place to create the safest, most convenient, and efficient airport experience for our travelers," says Pascal Bélanger, president and COO of the Quebec City International Airport.

In preparation for Quebec City's 400th anniversary celebration in 2008, the airport rebuilt its main terminal. According to Bélanger, "The anniversary presented a great opportunity for us to implement the technological upgrades, such as IP telephony and Wi-Fi, we'd been thinking about." Years prior to the redevelopment project, Bélanger had already begun exploring how integrated communications platforms in other airports automated and enhanced passenger services. At the Quebec City International Airport, each airline had proprietary equipment and switches to communicate with headquarters. Because proprietary systems could not be moved easily, the airport had to allocate permanent space for each airline. In addition, many airlines still used manual systems to issue boarding passes. "To provide the highest quality service to our passengers, we needed to create a common-use facility functioning from one unified network solution," says Bélanger.

Solution

Quebec City International Airport created a task team to research best practices at airports around the world. "We received very impressive comments regarding Cisco," says Bélanger. After an extensive evaluation of a number of solutions, Quebec City International Airport chose Cisco. "We chose the solution that much larger airports were using because we wanted a proven and tested end-to-end network that would future-proof our investment. We have a lot of plans for new airport

applications, and we knew that Cisco could provide the reliability, scalability, and performance to support our growing needs," he says.

> "Cisco helps us deliver on our passenger-first vision through benefits that are both visible and invisible to the traveler."
> —Pascal Bélanger, president and COO

With Hewlett-Packard as the system integrator and Cisco providing the network design, Quebec City International Airport adopted Cisco® Unified Communications and Unified Wireless Network to provide integrated data, telephony, and mobile services throughout the airport. "Now, all airlines use the same integrated wired and wireless Cisco infrastructure and voice over IP (VoIP) telephone system, enabling the airport to use each counter for a variety of airlines and maximizing efficiency," says Marc-André Bédard, network administrator at Quebec City International Airport. At a common-use counter, for instance, airline personnel simply log into the Cisco Unified Communications Manager to activate their Cisco Wireless IP phones with the correct airline telephony profile. "With the Cisco Wireless IP phones, agents remain connected regardless of where they are in the airport," says Bédard.

The Cisco Unified Wireless Network consists of 100 Cisco 802.11n access points, two 6500 Wireless Service Modules, and two Wireless Control Systems. Using the wireless network, airport staff access operational applications from anywhere in the airport. In addition, the Wi-Fi network currently provides guest access for passengers. "Business travelers are especially pleased. We provide instant Internet access, and travelers can go online to access their own VPNs easily," says Bélanger.

Results

Cisco's service and support team made it possible for Quebec City International Airport to realize its network vision within a short timeframe. "Working with Cisco helped ensure a quick and easy deployment of the integrated network solution. We began speaking with Cisco in the summer of 2007 and were fully deployed by June 2008, in time to support the increased passenger traffic that was coming in for Quebec City's 400th anniversary," says Bélanger.

The integrated Cisco network enabled Quebec City International Airport to gain business efficiencies and provide enhanced services that give it a global competitive edge. According to Bélanger, "Cisco helps us deliver on our passenger-first vision through benefits that are both visible and invisible to the traveler." Reliable Wi-Fi, for instance, is a visible benefit. "The airport used to leak traffic to Montreal, but as travelers began to experience our new facility, complete with amenities such as free Wi-Fi, passenger satisfaction improved and traffic to Quebec City International Airport increased," he says.

An integrated Cisco wired and wireless network that supports both voice and data streamlines the passenger flow transparently. The creation of the common-use facility not only enables greater flexibility for the allocation of the airport's resources, but results in better communication, faster passenger check-in, and support for 24-hour airline operation. And as the airport continues to deploy new Wi-Fi applications, the Cisco Unified Wireless Network's role in servicing passengers continues to grow in importance. "Cisco's robust Wi-Fi environment provides constant connectivity for airlines, enabling smoother operations. Runways, for instance, can be prepared faster, reducing

the need for airlines to circle around the airport. While this type of communication remains invisible to passengers, it is crucial to providing high-quality service," says Bélanger.

Next Steps

Quebec City International Airport chose to deploy Cisco 802.11n technology to help ensure the throughput and reliability needed to support the sophisticated applications that it plans to implement in the future. Every five to eight minutes, runway inspection vehicles send data on surface conditions to a security control center, which dispenses the information to all airline pilots. Today, these vehicles communicate via two-way radios, which can clog frequencies and cause delays in relaying information. "We're considering deploying Cisco outdoor mesh access points as part of the Unified Wireless Network. These access points will enable more reliable and faster communications between runway inspection vehicles and pilots, which translates into a better flight experience for our passengers," says Bélanger.

PRODUCT LIST

Wireless
- Cisco Catalyst® 6500 Series Wireless Service Modules
- Cisco Aironet® 1250 Series Access Points
- Cisco Wireless LAN Controllers
- Wireless Control System
- Cisco Wireless IP Phones 7921

Voice and IP Communications
- Cisco Unified Communications Manager
- Cisco Unity

Routing and Switching
- Cisco Catalyst 6500 Series Switches
- Cisco Catalyst 3750-E Switches

Security and VPN
- Cisco Catalyst 6500 Series Firewall Services Module

The Quebec City International Airport also plans to use the 802.11n network as a measurement and control tool for trucks and snow blowers and ploughs. By having the vehicles utilize the wireless network to communicate the amounts of urea dropped for runway de-icing and the time spent in each area, the airport would be able to optimize its resources. "We would also avoid having too many vehicles out on the runway during a snow storm, increasing safety," says Bélanger.

The airport recently deployed 14 self-service kiosks for baggage check-in and plans to operate these via the Wi-Fi network. "Using the kiosks wirelessly will enable us to move them to various areas in the airport as needed. The Cisco network gives us maximum flexibility while providing transmission

stability," says Bélanger. In addition, the airport now uses a Wi-Fi-enabled baggage tracking system. "Using the location-based capabilities of the wireless network, we'll be able to track every piece of baggage in the terminal," he says.

Recently, the airport built a new administration building across the street from the terminal, and as the airport staff prepares to move in, plans for extending the use of the Cisco Unified Network to this facility are already in place. According to Bélanger, "Our goal is to keep streamlining our processes to improve the passenger experience. And the capabilities of the Cisco network will take us there."

For More Information

- To find out more about the Cisco Unified Wireless Network and 802.11n technology, visit: http://www.cisco.com/go/nextgen-wireless
- To find out more about Québec City Jean Lesage International Airport, visit: http://www.aeroportdequebec.com/Html/en-ca/index.shtml

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Printed in USA   C36-506130-00   11/08