

Case Study

The Wireless Airport

Mobile Frontliners & Asset Tracking



About the Wireless Airport

With the number of air travel passengers expected to soar past two billion this year — the air transportation industry faces an increasingly daunting challenge of providing travelers with a high level of safety, security and customer service.



Challenge

Airlines have strict operational procedures that require intense support from the ground:

- Ground and maintenance crews must communicate effectively and immediately with both ground staff and approaching and departing crews
- Baggage handlers must track numerous pieces of luggage as they are quickly handed off between crews
- Security personnel must be in constant contact with one another and be able to respond instantly to any disruptions while minimizing interruption to airport operations
- Catering and retail airport tenants must promote their services directly to hundreds of thousands of potential customers who often lack the time to browse through information

Solution

Appear IQ, using the Appear Context Engine, proactively pushes or synchronizes personalized real-time information depending on the user's profile, context — for example, location — and the time of day to hand-held devices whenever the user enters or moves between authorized wireless zones. The Appear Context Engine extracts the location information from the Cisco 2700 Series Wireless Location Appliance, an innovative, easy-to-use component of the Cisco Unified Wireless Network. This appliance uses Cisco's advanced RF fingerprinting technology to simultaneously track thousands of 802.11 wireless devices, with an accuracy of a few meters.

At the same time, the Appear Synchronization Module synchronizes processes - file upload and download, version control, release management and the dynamic synchronization workflows - between devices and the back office.

Challenge

Airlines require an extremely high level of communication between their employees, clients, and the travelers who use them every day to get to their destinations on time and in comfort. The effective communication of the thousands of people in an airport at any given time is crucial to its success.

Solution

Context-aware technology from Appear Networks and Cisco Systems makes it possible for staff working through an airport's system to maximize their efficiency through continuous access to real time information pushed directly to their personal devices through Wi-Fi, GPRS, or UMTS.

Business value

Using the Appear IQ Platform and the Cisco Unified Wireless Network, airport management and staff can improve productivity, security for staff and passengers, the on-time arrival and departure of aircraft, sales for their tenants, and dramatically increase customer service, thereby saving time and money while potentially increasing revenues.



Mobile solution success story #20

Key Technical Benefits:

- User-friendly "Click & Run"™ Interface
- Device-independent – can operate with a heterogeneous fleet of terminals
- Secure application push or synchronization
- Support for multiple context parameters from the Cisco Unified Wireless Network, including real-time network visibility
- Support for voice, video and data applications
- Multiservice common-use infrastructure with the Cisco Unified Wireless Network
- Flexible, scalable and reliable platform

Key Business Benefits:

- Up-to-date information pushed to the right person, at the right time, in the right place
- Improved customer service with updated information on service disruptions, scheduling, routing and destinations
- Improved productivity and a heightened sense of value among employees
- Increased efficiency and communication among maintenance and baggage crews, who can quickly find the right person to fix an immediate problem
- Better security and efficiency of response in case of an emergency

Possible Appear IQ applications:

- *Maintenance tools* - Aircraft engineers can be dynamically served aircraft-specific applications, tools and manuals. For example, a maintenance engineer approaching an Airbus 340 will receive information on that specific aircraft.
- *Mobile baggage handling* - Baggage handlers can access location-specific information, such as finding the closest available baggage truck and sending it to an incoming aircraft.
- *Asset tracking* - Personnel and assets can be tracked within a few meters indoors using standard Wi-Fi tags.
- *Security personnel* - Personnel can access video streams from nearby surveillance cameras, and send silent alerts —activated with a simple press of a button on a PDA — to the security center. The security center can then dispatch the alert message and associated context to the terminals of nearby personnel qualified to offer assistance.

Business Value

Using the Appear IQ platform and the Cisco Unified Wireless Network, the airport authority can operate more efficiently and increase retail revenue by delivering the right information to the right employee or passenger at the right time. Context-aware services can streamline many airport processes, including maintenance, security and customer care.



Technology
Developer
Partner



When Context Matters

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