WHITE PAPER

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Three Benefits for RFID Use in Airports

By consolidating and expediting the check-in process, creating the ability to track items and employees, and enhancing security, RFID is being utilized in a variety of ways in airports.

By Fritz Esker
Contributing writer,
KioskMarketplace.com

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As RFID continues to become more prevalent in a variety of industries, airports are increasingly realizing the benefits of using RFID technology.

This white paper, sponsored by Parma, Italy-based Custom Engineering, a designer and manufacturer of printers and printing solutions, will discuss three benefits of using RFID in airports, including automating the check-in process, providing real-time tracking systems, and enhanced security.

Fully automated check-ins

In July 2012, Bologna, Italy's airport became the first European airport to use fully automated check-in kiosks, allowing passengers to book seats, print boarding passes, and check luggage all in one stop. Passengers also can use their smartphones as boarding passes, further streamlining the process and providing added convenience.

The printers for the luggage tags, designed by Custom Engineering, will be equipped with RFID tags for enhanced tracking. This technology will minimize headaches due to lost or misplaced baggage for both passengers and the airlines.

Jeremy Codiroli, process improvement engineer for Atlanta, Ga.-based GE Energy, said the old system used to be based purely on barcodes. The barcode had to be just in the right position to be picked up by the reader. RFID just needs to be in the viewing area and has a much higher read rate than the old barcode system.

Custom Engineering

The Bologna Giuseppe Marconi Airport became the first European airport to use fully automated check-in kiosks.

Codiroli said in 2007, there were 6.2 million bags delayed in Europe alone and each misplaced bag costs airlines approximately $20 each. Misplaced bags are costly for the airlines and it is inconvenient for the traveler. The scanners also can be on the plane itself for one last check. For example, when they're loading the bags on the planes, if one has slipped through the cracks and was sent to the wrong plane, the reader can locate exactly what flight the bag is supposed to be on so it can be rerouted in time to still make the correct flight.

The best news of all for airports and airlines is that the RFID tags and readers are inexpensive. Using RFID for baggage tags not only saves money, it isn't expensive to implement in the first place.

Real-time tracking systems

Airports have a lot of valuable equipment and lots of employees. It can be difficult to constantly keep track of all the expensive equipment and different staff members. However, RFID technology is making it a lot easier.

In the event of medical emergencies, airports now have defibrillators spaced throughout terminals. These are very expensive, but they cannot be locked down because they need to be accessed immediately in the case of an emergency. So, theft is a major concern. Paul Fisher, senior government account manager for Princeton, N.J.-based Tyco Integrated Security, said RFID chips can be attached to the defibrillators to instantly inform airport management when one has been removed from its station.

Not only does the RFID tracking allow the airport to be notified if someone has removed a defibrillator, it can be used to track emergency personnel via RFID chips in the employees' smartphones. Once airport management is notified that a defibrillator has been removed, they can immediately see which member of the medical staff is closest to the removal site and dispatch them there immediately via text message.

RFID tracking devices also can be attached to wheelchairs. All too often, handicapped travelers have to endure lengthy waits when their plane arrives as airport personnel have to search for a wheelchair to transport the passenger. But if the wheelchair has an RFID tag attached, the airport can instantly find out where the nearest available wheelchair is, speeding up its delivery. This reduces wait time for the handicapped passenger and for passengers in the terminal waiting to board the airplane. It creates happier travelers all around.

On a similar note, RFID can be used to track maintenance staff via their phones. If a restroom needs cleaning, the airport management team can determine which staff member is the closest to the area and send him there immediately. Airport staff also can determine how quickly the staff member is able to make it to the restroom and clean the restroom once he's there, in-

RFID uses in airports

RFID technology can be used for the following:

- Luggage tags
- Medical equipment and personnel
- Track maintenance and janitorial employees
- Badges for airport employees

creasing efficiency in both dispatching and the actual cleaning of the restroom.

Enhanced security

Airport security also can be enhanced via RFID tags. Certain entrances are for authorized personnel only. Traditionally, these doors have been guarded by security or TSA personnel. But, like all people, these guards can be fallible or fail to notice a clever impostor.

Codiroli said that RFID chips can allow for stronger security in airports. Since airport employees wear badges anyway, it is easy to attach RFID tags to their badges. To gain entry into a restricted area, an RFID reader can read the tag on their badge and then allow or deny access accordingly. RFID readers help take away the potential for security breaches via human error.

About the sponsor: *Custom Engineering is based in Parma, Italy and designs and manufactures printers and printing solutions for the industrial sector, retail stores, the gaming market, and for all applications for kiosks and ATMs.*