



RFID for Airlines and Airports

Radio Frequency Identification (RFID) is an extremely powerful enabling technology in airports and aircraft, serving to improve security against criminal attack, safety against general hazards, efficiency, error prevention and data capture and to remove tedious tasks. It can even create new earning streams where it makes tolling feasible without causing congestion and where new airport "touch and go" cards offer new paid services without delays. RFID creates competitive advantage in many ways and in many locations. Managers in the air industry and their suppliers are in danger of being left behind if they are ignorant of the successes and new possibilities of using RFID to improve the air industry. We assess the following applications:

- Airline baggage tagging
- Reduced wastage in the food service chain
- Cargo tracking: improving operations
- Real-Time Inventory Check of on-board Safety equipment
- Maintenance Operations, Tools and Parts
- retail operations within airport concourses
- Freight: enabling the IAT e-freight initiative

The International Air Transport Association (IATA) is championing the use of RFID for all of these areas through standards activities (IATA introduced an RFID baggage tag standard in 2005) and focus projects. In 2008, IATA completed a study of RFID use in the airline industry to manage and maintain trolley equipment and their contents. This report details the costs of deploying an RFID system at catering facilities worldwide, the benefits airlines can expect and the practices IATA recommends for deploying trolley-tracking and maintenance systems. The IATA estimates that the global airline industry could save US\$760 Million annually just from RFID baggage processing with estimates in the US\$ Billions when cargo, freight and parts processing is improved with RFID tracking.

There are many opportunities for ROI in Airport Operations:

- Security Regulations Compliance
- On Time Departure - plane refueling, food service, passenger processing
- Customer Service - lost bag, faster bags, faster connections
- Labor Optimization
- Parts pedigree & Electronic Maintenance Logs
- Smart Recall - bag retrieval
- Work Scheduling

- Airport Operations Optimization - smart gates
- Asset Utilization - baggage carts, tugs, air cargo containers

An RFID Infrastructure for Airports - The use of RFID at airports creates many requirements for an expandable, sustainable infrastructure. As baggage, parts and planes move around the globe, the infrastructure at each airport must be capable of handling RFID tags from all geographical regions. Plus, the RFID technology choices must work for closed-loop, open-loop and cross-enterprise data collection and exchange involving many processes and potentially many companies and governments. In fact many airport operators will need to implement an infrastructure that will service all of the constituents that use their airport facilities, each with their own data and tracking requirements, but serviced by a common RFID network provided by the Airport owner or operator.



Processes will incorporate both fixed/portal type readers and handheld/mobile readers to facilitate tag data capture at many locations for many subscribers. And, most airlines and airport operators envision incremental use of RFID over time as they expand the number of tracking locations, deployed readers and consuming applications across their enterprises. The Omnitrol Networks appliance integrated by FALKEN Secure Networks delivers the scalable infrastructure platform that Airport operations can depend on to generate value now and in the future.

The Omnitrol supports most major reader brands and models. The solution provides a graphical user interface that allows implementers to define physical facility layouts, place fixed readers, indicate benchmark reference tags for coordinating and dynamically determining mobile reader locations, create business location representations and once deployed – remotely manage and monitor multi-location facility level RFID networks. Configuration tasks can also be automated to facilitate rapid rollouts for deployments that incorporate 100's of facilities. The Omnitrol handles both Bar Code and RFID data input thereby allowing graceful migration to accommodate project rollout schedules.



The potential amount that RFID baggage tagging can save amounts to \$760 million a year and is therefore worthwhile tackling. In some cases the saving has been very high - in Hong Kong airport, for example, the average cost of handling bags has gone from \$7 per bag to \$4 - a huge saving. By early 2008, more than 30 airports are using/trialling RFID for baggage handling. The major roll-out at Hong Kong is beginning to be done elsewhere - including now at Milan airport. McCarran International Airport in Las Vegas was the first U.S. airport to commit to RFID on a large scale in a \$125 million project for its baggage handling operations.

The U.S. Transportation Security Administration (TSA) has released a report based on the results of an RFID trial at Newark Liberty International Airport, intended to track baggage-loaders, fueling trucks and other maintenance vehicles as they travel around 20 to 30 percent of the airport's roadways and approach airplanes. Airports would use the system to increase security and protect airports from potential terrorism. The system tracks where the vehicles go and allows only authorized personnel to operate them. While the system deployed at JAXPORT at Jacksonville also tracks baggage, the one at Newark monitors only vehicles. These airports can now instantly locate, identify and pull luggage when someone sets off the metal detector or the explosives detector, etc.

Now, the airline Flybe is using radio frequency technology to tag onboard safety equipment. Items such as lifejackets and safety manuals being tagged means that it's easy to quickly verify their presence onboard using handheld readers. This means quicker turnaround times for each plane to be marked as safety-ready for flight.



Airports administrations could put in the RFID network and charge for the data feed, and solve the identification and location issues associated with the identification, tracking and lost luggage problem while building a new revenue stream for the airport and potentially airlines as well. Once installed, the infrastructure will beget new applications; those new applications will drive revenue and more value for all the airport stakeholders.

FALKEN Secure Networks(FSN)—Your partner for RFID automation

If you choose to pursue RFID implementation in your organization, here is the FALKEN Secure Networks commitment to you:

- FSN will provide solution architects to work with you to define system requirements for your particular installation. Multiple locations can be networked together for a central and real-time view and centralized management.
- FSN will do a RFID site survey to validate radio frequencies, tag types, system design and performance
- FSN will provide all necessary hardware and software to make the system work for you
- FSN will integrate the system with your existing enterprise management software
- FSN will provide documentation for the system, including operating procedures
- FSN will train your people
- FSN will provide warranty and continued system support

For RFID-enabled Document Tracking and Management, FALKEN Secure Networks (FSN) and partners bring together the right technologies to give you control over your files and make your office run more efficiently. Our automated and secure processes save time and labor, and prevent problems before they occur. With FSN ,you get the latest, non-proprietary secure RFID technology with the most powerful and flexible RFID file tracking software available.

Contact Us

FALKEN Secure Networks is a specialized System Integrator, RFID Solution Architect, and Value-Added Reseller with focused expertise in the RFID site survey, cost-effective design, and turn-key project implementation.

Contact FSN at sales@falkensecurenetworks.com



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