

McCarran International Airport will be the world's first facility to use RFID to tag luggage airport-wide.

Nov. 6, 2003—McCarran International Airport in Las Vegas is the first airport in the world to commit to deploying an airport-wide RFID system for tracking passenger baggage. The system is expected to be operational next year.

“We handle 65,000 to 70,000 bags per day,” says Randall H. Walker, the airport’s director of aviation. “They are routed to a centralized screening node before they are redistributed to the airlines. We needed a very high degree of accuracy to make sure we send each bag back to the right airline and not interfere with their ability to get the bags into the airline system.”

Airports have been considering using RFID technology to track baggage for more than a decade. Tests have been done at numerous U.S. airports, including those in Atlanta, Jacksonville, Fla., and San Francisco. Several European facilities have opted to use RFID tags to track reusable trays that carry luggage (see [EU Airports Send Bar Codes Packing](#)).

In the U.S. tests, RFID tags were far more accurate than scanning bar codes on baggage tags as luggage moved down a conveyor. Because of the random orientation of the bags, the bar codes can be mis-scanned 15 percent to 30 percent of the time. The higher cost of the RFID tags has prevented airlines and airports from moving to RFID systems, but the post-9/11 requirement in the United States to screen all bags for explosives and the falling price of RFID tags has changed the economics.

“Fifteen percent of 65,000 bags is a lot of bags,” says Walker. “To manually reroute all those bags to the right location if they were delivered incorrectly to the airline is an extremely expensive process. When you look at it overall, certainly the savings in manpower would more than offset the higher cost of the RFID tag.”

The Clark County Department of Aviation, which runs McCarran, selected RFID tags from [Matrics](#), a Columbia, Md.-based provider of RFID systems that operate in the UHF spectrum. Matrics will supply roughly 20 million tags per year under the five-year contract. Walker says the tags will cost around 20 cents each. The total value of the contract is approximately \$25 million.

“This is the largest order for a real operational RFID application,” says John Shoemaker, VP of corporate development for Matrics. “And it’s just one airport. There are more than 430 airports in the U.S. alone, so this is truly huge.”



Randall Walker

Initially, Matrics will provide RFID tags that have airline identification numbers written into the tags' memory. McCarran will give each airline the tags, which will be attached to ordinary airline baggage tags. Later, the RFID transponder will be integrated with the bar-coded baggage tag, and each airline will write its own code to the tag when the tag is printed.

After the bags are scanned by explosive detection equipment, readers set up on the baggage conveyor system will read the tags automatically and route the bags to the appropriate airline. Walker says the airport's tests showed the system is better than 99.5 percent accurate. [FKI Logistex](#), based in Danville, Ky., will handle the system integration under a separate agreement.

Matrics's Shoemaker praised the U.S. Transportation Safety Administration and McCarran airport for demonstrating real leadership in committing to a system that will have a profound impact on the airport's operations. "It's all about safety and customer service," he says.

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