

RFID Transit Cards Help Retailers

A new report from the Smart Card Alliance shows how smart transit cards can drive up sales for other goods and services.

Oct. 27, 2003 - In the past six years, public transportation use in the United States has increased 22 percent, with Americans taking an estimated 9.4 billion trips in 2002. As ridership increases, the public transportation industry is looking to improve its fare payment systems. Contactless and contact smart cards are becoming an increasingly attractive option, according to the Smart Card Alliance's new white paper [Transit and Retail Payment: Opportunities for Collaboration and Convergence](#).

Smart card-based fare collection systems can cut operation costs and boost ridership, transit officials say (see [Smart Cards for Smart Commuters](#)). But the benefits from these implementations can go beyond the public transportation system itself if transit operators let riders use their transit smart cards to pay for things like bridge tolls, parking fees, restaurants meals and groceries.

"The opportunity in transit—as transit operators look to expand their fare payment cards beyond ridership alone—is to capitalize on a very large customer base who carry value on their card rather than cash," says Randy Vanderhoof, executive director of the [Smart Card Alliance](#). "These people want the same speed and convenience to purchase their morning coffee and newspaper as they get for boarding a bus or train. Retailers who accept the fare card for payment would handle less cash and service more customers faster by accepting the card."

Today, one of the principal areas of federal, state and local government spending on public transportation is on fare collection systems. Transit operators are switching from single-purpose dedicated fare collection systems to automated smart card-based payment systems and networks. One reason for the move is to retain existing riders and attract new ones. In many ways, the public transportation sector is adopting a business model more akin to that of a retail company, according the Smart Card Alliance's white paper, so that they can focus on the customer experience and expand their market. In addition, transactions using smart cards are more cost effective than those involving cash, according to the Alliance.

By partnering with local retailers and allowing riders to use their transit cards to purchase snacks and services such as dry-cleaning, transit authorities can benefit in a number of other ways, according to the report. Transit operators, for example, may be able to lower their own operational costs by having merchants serve as an additional channel for distributing the cards. To boost revenues, transit operators may decide to charge retailers a small payment-processing fee for transactions made with the transit card.

For a smart card-based payment system to be successful, however, it must meet several requirements: It has got to have a transaction speed of 70 to 300 milliseconds for the entire customer transaction (for example, reading the card's embedded RFID tag at the gate, deducting payment from the cardholder's account opening the gate). The system needs to be accurate, charging the correct fare, otherwise usage would drop. An effective payment system also would have to ensure data integrity -- that is, make certain that account information can be seen or modified only by people authorized to do so -- and provide easy access to customer service, such as a Web site that allows users to track their transactions.

Today, cash transactions still account for a large portion of public transit trips. In Washington, D.C., about 65% of bus riders pay in cash. But a contactless smart card system called SmarTrip, implemented in May 1999 by the Washington Metropolitan Area Transit Authority (WMATA) system, has seen more than 360,000 of its Metrorail travelers using the SmarTrip cards. The cards can also be used to pay WMATA-operated parking lot fees. The agency is hoping to extend its fare card system throughout the region's public transit network and let it be used by area retailers. In order to do so, however, interoperability will be key.

"Many of the agencies who installed proprietary systems several years ago did so because that was the best and most available technology at the time. As the market has matured, newer standards-based technologies are being adopted," says Vanderhoof. "It is possible to support dual technologies in a single system so agencies have more choices. The next step in the expansion would be to retailers surrounding the transit operations so the fare card becomes more than just for transportation."

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