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IN DEPTH: FARE COLLECTION TECHNOLOGIES

The BBR: How a Bus Provides the Smallest, Busiest Sales Office

As part of its overhaul of fare policies and installation of a new smart card system, the Metropolitan Transit Authority of Harris County (Houston METRO) has introduced new technology that allows its customers to perform fare transactions while on board the bus: the Banknote on Board Reloader (BBR).

METRO previously offered more than 65 fare payment methods with a variety of discounts ranging from 5 percent to 50 percent, based solely on the size of value of the revenue instrument rather than on the frequency of transit use. However, one fare instrument was especially popular: the \$2 Daypass, which patrons could purchase upon boarding the bus and use for an entire day. Unfortunately, this instrument had been shown on review to be the source of much misuse and fraud, with METRO losing more than \$2 million per year.

The agency determined that patrons liked the Daypass because of the convenience of purchasing a low-value instrument on board the bus during their trip. In crafting new fare transaction processes, METRO insisted on providing the same level of convenience to the patrons along with new benefits associated with the new Q Card.

METRO wanted the new smart card system to provide discount benefits to its patrons and created the "5 for 50" frequent rider reward program, which provides five free trips to patrons who use the Q Card to pay for 50 trips. The free rides are available equally to all patrons regardless of how much value they place on their farecard.

Because only Q Card users can participate in the program, METRO understood the importance of making the new fare media readily available. The smart card provider, ACS Transport Systems, responded by designing a new sales device—the BBR—that would allow patrons to reload their cards on board the bus by inserting currency (bills from \$1 to \$20) into the unit. METRO installed the device on its entire fleet of local buses.

The BBR monitors and manages fare transactions on board the bus while connected wirelessly to the central smart card control systems. It downloads data related to transactions, cash held by the unit, and the types of transactions processed upon the bus's entry to the garage area.

Historically, pre-paid discount instruments represented only 35 percent of the transactions processed by METRO; in contrast, the Q Card was used for more than 70 percent of transactions within eight weeks of its introduction. Further, more than 80 percent of Q Card reload transactions use the BBR device.

METRO's simplified fare policy has improved the farebox recovery ratio to above 20 percent, while use of the Q Card has reduced processing costs and attracted riders to pre-paid fares. Throughout these improvements, the BBR has proven to be an important component of the agency's success.