



Cash Collection in a Cashless System

By Jim Wilson, PMP

This article is based on the author's presentation, "The Challenge of the Unbanked Customer," at the IBTTA Special Summit on Open Road Tolling in Plano, Texas in July 2008.

Is anyone still unconvinced about electronic toll collection? Odds are, if you're reading this, you're well-versed in a vast number of bullet points outlining the benefits of ETC from a variety of perspectives: convenience and savings for the customer; improved traffic flow and reduced operating costs for the toll agency; increased movement of goods and services for our local and national economies; and even decreased emissions, for a nice touch of "green."

As an industry, we've seemingly sped past questions about whether ETC is an option to whether it should be the only option. In fact, the list of agencies worldwide that have either gone all-electronic ("cashless," if you prefer) or are considering going all-electronic grows longer with each passing PowerPoint presentation. It's as if "cash" has become a four-letter word—well, OK, it is a four-letter word, but you get the picture.

The arguments for all-electronic tolling (AET) are very compelling, especially when factoring in all of the associated costs of cash collection. It's no secret that the quarter that John Q. Public innocently drops into the basket is about to take an arduous and expensive journey to

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the bank before it's converted into an electronic deposit and available to the toll agency in the form of a nickel and a dime. Simply put, the cost of doing business in ones and zeros is cheaper and more efficient than doing so in quarters and dimes.

But whether one refers to this transformation as AET, Cashless, or The Glorious Death of the Money Counting Room, there are undeniable concerns with this movement, and most likely the biggest question we collectively have is: What about those who want to, have to, or need to pay cash? No matter where we live or what the economic conditions, there are those who are unable financially or are unwilling to participate in our traditional ETC programs, and they're usually easy to identify: just look toward your right as you're whizzing by that long line of cars at the next toll plaza.

Recently, we've come to term those who fall into this category as the "unbanked customer," but the truth is, this category includes not only those without a bank account, but also those

who don't have a credit card, who don't like automatic charges, or who simply don't trust the government for whatever reason. Actually, there are a dozen or more legitimate (albeit sometimes unusual) reasons why cash users prefer cash.

So how can we accommodate our cash customers in our pursuit of a cashless system? Perhaps a quick trip to the Caribbean can shed some light. ¡Vámonos!

Puerto Rico's AutoExpreso ETC System

In early 2004, the Puerto Rico Highways and Transportation Authority (PRHTA), under the direction of Felipe Luyanda Andiño, opened its first ETC lanes to the public. Within the first few months, the new AutoExpreso program was deemed a resounding success, with more than a million monthly transactions and 100,000 accounts. Within two years, the program surpassed its five-year

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projections and now collects nearly seven million transactions per month. The impressive story line lies not necessarily in the system's growth, however, but rather in the obstacles the agency faced before launching the program.

When the contract was awarded to TransCore in 2003, barely one-third of the driving population possessed a credit card, and only two-thirds had a bank account. Puerto Rico was and continues to be a cash-preferred economy. Initial studies also showed strong "Big Brother" concerns, a lack of trust in government programs, and a resistance to change. It was obvious that a traditional ETC program in which every patron is required to register and fund a prepaid account

with a credit card wouldn't work there. In order for the PRHTA to gain the full value of its investment, an innovative solution would be needed to drive participation. Enter reverse debit.

Reverse Debit

The reverse-debit solution is a first-of-its-kind approach to providing ETC access to the cash-paying customer. Reverse debit can best be summarized as a point-of-sale transaction that either activates or replenishes a toll account at a retailer location. Anyone in Puerto Rico can walk into a participating Texaco or pharmacy with \$20 and walk out with an active sticker tag and toll account with \$10 in prepaid tolls. No registration forms to fill out;

Reverse debit means that anyone in Puerto Rico can walk into a participating retailer with \$20 in cash and walk out with an active sticker tag and toll account with \$10 in prepaid tolls.



no credit card information to hand over; no customer service department to contact; no need to provide one's mother's maiden name. The \$10 purchase of the sticker tag includes an information booklet and a magnetic-stripe card associated with the tag and the newly created account.

Once the patron spends the \$10 in tolls, he or she can simply return to any participating retailer, hand the

clerk the mag-stripe card and method of payment, and, within seconds, more money is added to the patron's prepaid account balance. Users are free to pass through the AutoExpreso lanes at highway speeds completely anonymously, without the need for a credit or debit card. With more than 150 participating retailer locations, this point-of-sale approach has made it convenient for motorists in Puerto Rico to pay as they go.

AutoExpreso customers still have the option to register accounts and provide credit cards in order to automatically replenish their accounts when their prepaid balance

reaches a certain threshold, but this is completely optional and, so far, only 30 percent have opted in. As the system approaches five years in operation, 56 percent of AutoExpreso users continue to remain completely and happily anonymous. Although credit card usage as a method of payment has gradually increased, to 44 percent, approximately 33 percent of all payments continue to be made in cash. (The remaining 23 percent pay with debit cards and may or may not be registered.)

Funds from all debit and credit card transactions are instantly posted to the PRHTA bank account, and the cash collected by the retailers is deposited



for automated withdrawal. Essentially, the reverse-debit solution allows the PRHTA to collect cash without actually having to do the collecting.

In-Lane Replenishment

To further improve the AutoExpreso program and its convenience to the toll user, the PRHTA introduced another ETC innovation. In October 2008, Puerto Rico's secretary of transportation and public works, Carlos J. González Miranda, held a press conference announcing In-Lane Replenishment (ILR), the first known toll lanes in the world to provide tag sales and account replenishment.

"We're working not only on the development of a modern and reliable strategic network of highways that soon will integrate all the regions of the country, shortening distances and saving time, but we [are also concentrating on] offering more facilities to drivers who use AutoExpreso to arrive faster and with greater security at their destination," González Miranda said. The PRHTA's Luyanda Andiño later added: "The ILR lanes make ETC more accessible by providing at-your-window service. They demonstrate the Authority's commitment to making AutoExpreso a better product and encouraging its use by all drivers."

The In-Lane Replenishment solution works similarly to the reverse-debit process. A tag can be purchased

and activated with \$20, except the transaction occurs while the patron is in the toll lane rather than at a store. Instead of account activation taking place through the point-of-sale network, however, the tag is read with a bar-code scanner and activated through a customer service center software application running on the toll attendant's touch-screen terminal. Once the transaction is complete, the patron leaves the lane with the active tag, and the toll is deducted from the newly activated account.

To replenish accounts, the ILR lane reads the tag on the vehicle and populates the account information on the touch screen. The patron then hands the attendant the method of payment, the amount is entered, and the patron leaves the lane with a receipt showing the updated account balance. The toll is deducted from the user's account as the vehicle exits the lane.

While the ILR lanes are still relatively new, the PRHTA is extremely pleased with initial public reaction. Within days, 45 percent of all AutoExpreso program tag sales and account replenishments had been transacted through the first four ILR lanes. In less than five days, more than 1,000 tags were sold, and more than \$500,000 was collected within weeks. The PRHTA had ordered six additional ILR lanes to be opened by the end of 2008 and

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is contemplating multiple ILR lanes at the busiest toll plazas.

As with the other AutoExpreso locations, cash, credit, or debit is accepted at the ILR lanes. All debit and credit card transactions are instantly posted to the PRHTA bank account. In cash transactions, the money is immediately run through a bill validator in the tollbooth to check for counterfeit bills. It is then deposited into a completely secure cash vault rather than placed in a cash tray or deposit envelope. The funds in the vault are transported by an armored-car service and are 100 percent guaranteed by the provider of this service. The cash in the safe is as secure as in the bank, which is a good thing considering that more than half the ILR transactions are conducted with paper currency.

Don't Count Out Cash

The cash-convenient options of reverse debit and ILR lanes have allowed for the immediate and sustained success of an electronic toll collection program for which the traditional, credit-based approach would most likely have failed.

Although the demographics in other areas of the world may differ from those in Puerto Rico in some respects, there is certainly a patron base on every toll road that would appreciate and use the options AutoExpreso offers, including anonymous accounts, pay-as-you-go ETC participation, and cash payments. As the PRHTA moves toward AET, reverse-debit and ILR lanes will continue to play a crucial role. It is

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For other agencies across the globe that are considering an all-electronic tolling system, AutoExpreso's cash-collection options offer a viable alternative means of participation for "unbanked" or cash-preferring



customers. Even customers who've already been persuaded to participate in a traditional, credit-based system might embrace the opportunity to select the method of payment that works best for

them. The current global economic crisis notwithstanding, it is safe to assume that as long as "real" money exists, so will those who want to, have to, or need to pay cash.

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