

MasterCard to Offer Paper or Plastic

The credit card company is developing a paper RFID payment ticket for transit systems, sporting arenas and other applications.

By Claire Swedberg

March 29, 2007—[MasterCard Worldwide](#) has begun research into and development of a paper contactless payment ticket for use in transit and other applications, as an alternative to the [PayPass](#) credit card. French contactless card and ticket provider [ASK](#) is supplying the paper tickets, which MasterCard is testing in its laboratory. The ticket will be embedded with the same RFID transponders used in MasterCard's plastic PayPass cards already being used at about 46,000 point-of-sale merchant terminals.

Although the tickets are earmarked for transit use—for example, on one-fare tickets at city bus stations—they could be used for a variety of other applications, says Kathleen Reilly, vice president and senior business leader of advanced payments at MasterCard Worldwide. "Our interest is in the transit environment first," she explains, "because that is our most immediate need."

The disposable tickets are made up of a PVC-coated paper outlay, a silver ink antenna and a 13.56 MHz RFID chip based on the ISO 14443 air-interface standard. ASK already ships paper contactless cards throughout the world, says Amand Cochet, ASK's corporate sales and marketing vice president, including about 25 million for transportation. The cards have not yet been produced, but ASK presently has the capacity to produce two million of them. "This will be a really low-cost solution," he says.

According to Cochet, discussions about the paper cards between ASK and MasterCard began about six months ago, when MasterCard approached ASK looking for a low-cost alternative to the PayPass system for those who might only need a few rides—tourists visiting a city, for instance—and for those without credit cards. Transit presents a need for fast and efficient ticketing, and PayPass readers are already in place in numerous transit areas. For MasterCard, the paper ticket would be a less expensive alternative than plastic credit cards that subway riders can use and reuse.

As part of the research and development, Reilly says, MasterCard is looking at making the tickets "loadable," meaning a user could pay for a specific number of rides and have that amount stored on the chip in the ticket. "But initially," she notes, "we are looking at single use for the underbanked population [those without credit cards]."

RELATED_ARTICLES The tickets could be sold at vending machines and newsstands, just as non-RFID transit tickets are today. The tickets would work exactly the same way as PayPass: the transponder in the ticket would be interrogated by an RFID reader as the traveler passed through transit turnstiles. "We're just adding an additional form factor," says Reilly, adding that she cannot forecast when the paper-based ticket may be available for commercial use.

Since February, MasterCard has been participating in a pilot with New York's [Metropolitan Transportation Authority](#) (MTA) to use the MasterCard PayPass card for New York subway rides. Citibank MasterCard

PayPass credit-card holders enrolled in the pilot are using their cards to pass through subway turnstiles at 23 stations on the Lexington Avenue line, and one station each in Brooklyn and Queens. Similar cards are already in use in Chicago and Washington, D.C. Eventually, Cochet says, the new paper ticket could also be used at music and sporting events to pay for stadium access, as well as for concessions such as food and drinks.

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