

m-Commerce

The Revolution Begins

As cell phones become payment devices, who will rule the payments infrastructure?

By Richard H. Gamble

KEY NOTES

- ▶▶ Merchants see two paths to wireless capture of payments—one that relies on computer technology packaged in small devices like a cell phone, and one that relies on familiar merchant terminals that work wirelessly.
- ▶▶ One possibility is that future m-commerce transactions will be linked to cell phone numbers and PINs instead of credit card numbers or bank account numbers.
- ▶▶ Who plays what role and what they earn for their service is very much in play at this point.

On the heels of the e-commerce revolution of the 1990s, which introduced credit card payments to the Internet, the m-commerce revolution promises to be the next big wave, many forward-thinkers are predicting. The “m” is for mobile, reflecting consumers’ love affair with the pocket-sized devices they use to take pictures, send and receive text messages, call home, and browse the Net. Today, consumers head for the mall with both cell phones and wallets, but in another decade or two, the wallet may be history.

The companies that make cell phones and run the cellular communication infrastructure could one day displace banks and credit card networks as the keepers of the settlement system people use. But first, the handset manufacturers, cell phone carriers, and payment processors will have to come together to make m-commerce work.

Consumers are hardly waiting for corporations to invent the mobile payments system of the future. Donna Embry, senior vice president for product development at Louisville, Kentucky-based Payment Alliance International Inc., pulls out her iPhone while being interviewed by *Transaction Trends* and pulls up Amazon.com to buy a book. It’s a bit slow, but the process works. She gets a confirmation message that she has bought the book and then gets another message that Amazon will provide fast one-click service in the future for orders she makes with that phone, thanks to a cookie that has been implanted.

As the technology for full-scale m-commerce comes together, the battle over the infrastructure will heat up. The players will have to determine who owns and delivers the content and who gets how much of the revenue.



New Territory

Between the e-commerce and the m-commerce revolutions sits the wireless evolution, where innovation is already occurring, and acquirers and ISOs have practical opportunities to push into new territory.

The two sides to today's wireless activity are wireless merchants and wireless buyers. Merchants currently use two kinds of mobile devices, proximity devices and remote devices, explains Farhan Ahmad, director of emerging markets and strategic business development at Discover Financial Service in Riverwood, Illinois. An example of a proximity device is the device a waiter would bring to your table so you can swipe your own card and put it to your wallet. Proximity devices use radio signals to communicate with a POS station or backroom server wired into conventional communications.

Remote devices would be used by a piz-

za delivery person, for example, so you can swipe your card at your front door when the delivery person hands you the pizza. These mobile devices dial into the cellular phone network and then essentially go through the same authorization and processing routine that would occur over land lines except the data is encrypted while in transit, Ahmad says.

Both devices are proving valuable. The LAN-based proximity device helps eliminate card skimming, estimated to account for 70 percent of all credit card fraud. It also brings a 1 to 3 percent increase in efficiency, a huge benefit in a high-volume restaurant, and increases customer satisfaction and return business. At the same time, it gives ISOs new equipment to sell and better retention, Ahmad points out.

The WAN-based remote device brings in a whole new category of merchants and card transactions, replacing transactions that historically have only used cash

or check, Ahmad notes. That means new merchants to enroll and new hardware for ISOs to sell. It can also bring opportunities for enhanced gift and loyalty programs, he points out. For example, in a taxi, the GPS-enabled payment device may be attached to a screen mounted between the front and back seats. While the card payment for the taxi is being authorized, the name and location of a restaurant near the drop-off point may pop up on the screen with a special offer, like double points for eating at that restaurant on that day, or even a downloadable electronic coupon.

While the application is gee-whiz new, the infrastructure remains familiar. When the pizza delivery person swipes your card through a reader attached to a cell phone, the authorization call travels over the cell phone infrastructure but requires no change on the part of the merchant processor. "The card networks can see that it's coming from a mobile device, but it's still a standard transaction," notes Adil Moussa, analyst at the Aite Group, Boston.

Remote mobile is a big hit among merchants that sell at farmers' markets, swap meets, and trade shows, and they're popular with contractors that work on a customer's site and with delivery services, says Matt Freedman, COO of Total Merchant Solutions, based in Basalt, Colorado. Total Merchant Services has become the largest provider of wireless terminals, which now comprise 25 percent of the company's new terminal placements.

Merchants see two paths to wireless capture of payments—one that relies on computer technology packaged in small devices like a cell phone or PDA and one that relies on familiar merchant terminals that work wirelessly, says Freedman. "Our merchants don't want to use a tiny com-

puterized thing. They want a credit card terminal, but they want it to go anywhere," he says.

Airlines increasingly use remote mobile technology to let fliers charge things like meals, drinks, movies, and pillows in their push to create cashless cabin commerce that could include orders from a *SkyMall* catalog, Ahmad suggests. Currently, flight attendants often carry mobile devices on domestic flights, but international flights frequently feature a screen on the back of each seat that allows a passenger to buy

and pay without the aid of a flight attendant. Such screens are likely to become more common on domestic flights, he predicts. Today, the buyer typically swipes a card but could tap a cell phone with an embedded radio-frequency payment chip near a contactless reader, he adds.

Revenue Battles

As consumers embrace wireless transactions via personal mobile devices, a battle over who owns and runs the m-commerce infrastructure is brewing. "The card net-

works want to see credit card transactions that travel over their rails," says consultant Paul Martaus, president of Martaus & Associates in Mountain Home, Arkansas. "The debit card guys want it to come to them. The merchants want to see ACH debits because they're the cheapest. But those decisions have not been made yet because we haven't settled on interoperable standards and there's no agreement about how to divide the revenue pie."

One possibility is that future m-commerce transactions will be linked to cell phone numbers and PINs instead of credit card numbers or bank account numbers, reports Mike Diamond, senior vice president for business development at Obopay, a cell phone payments provider based in Redwood City, California. "It's convenient because people know their cell phone number. And you already see the mobile phone carriers trying to offer more mobile commerce to merchants. They want consumers to leverage their phones as payment vehicles. You could link the phone number and PIN to a bank account, prepaid account, or credit card for settlement."

If future m-commerce bypasses the banking system, banks would lose significant revenue, Diamond says. Obopay aligns itself with banks and m-commerce settlement through the banking system and has signed a deal with Citigroup that lets a consumer connect his cell phone to a Citibank account for a service called Money Send. Consumers download Obopay software into their cell phones, and then use text messages, the mobile browser, or a rich client application to send money to another person or business. Completing the transaction is easy if the payee has a Citi account; if not, the payee gets a message that a payment is being held for them by Obopay. The payee then goes to an Obopay Web site to find out how they can collect. "We're the mobile on/off ramp for the Money Send program," Diamond says.

PayPal is already pushing its way into mobile payments with two varieties, Martaus notes. One variety allows two PayPal members to move money from one's account to the other's with text messaging. The other allows members to buy things they see on smart billboards with their cell phones. For example, a person attending a ballgame might see a poster advertising a new music

Capitalize on:
Increased Foreign Spending in the US and E-Commerce Targeting Foreign Markets

Pay In Your Currency™ and Multi-Currency Pricing Help You and Your Merchants Earn New Revenue on Foreign Transactions

Acquirers & ISO's:

- Increase profits
- Add new revenue streams
- Build merchant loyalty
- Attract new customers

Your Merchants:

- Increase revenue
- Offset foreign card processing costs
- Reduce shopping cart abandon rates
- Enhance customer satisfaction
- Open new global markets

Planet PAYMENT
 800.489.0174
 www.planetpayment.com

CD they want to buy. By keying in a tag number displayed on the billboard, he or she can order that CD, pay for it from his or her PayPal account, and have it shipped to his or her address, he explains. Credit card networks and banks are not involved in the transactions except to fund PayPal accounts.

Who plays what role and what they earn for their service is very much in play at this point, notes George Peabody, director of merchant technologies advisory services at Mercator Advisory Group in Maynard, Massachusetts. "If the mobile operators provide security and communication services, then they will want a flat or variable transaction fee for that trusted service manager role. Of course, the financial institutions aren't eager to share the interchange or merchant discount portion of the transaction with another party. They will be more than happy to have the mobile players use their network rails for credit and signature debit transactions and collect the revenue."

Because mobile banking is typically a free service, banks are exploring ways to add fee-generating enhancements like person-to-person payments and international remittances that are driven off the mobile handset, Peabody reports. In 2007, MasterCard published a pilot P2P (person to person) interchange rate to encourage program development, he notes.

Wild Cards

The m-commerce system that evolves depends on what Peabody calls "two wild cards." First is the extent to which merchants adopt mobile payment applications themselves. If they do, they will naturally want to steer the transaction to the lowest cost option, he reasons. "As mobile apps on smartphones and communication speed improve, it will be very interesting to see how merchants leverage software-only (non-NFC) transactions. Given couponing via barcodes and other customer-experience-management steps, such closed loop approaches should have legs. In fact, the attraction to consumers will be the improvement in the shopping experience, not the payment transaction. We expect to see many more software-based customer experience innovations over the next year and beyond."

The second wild card is the scramble taking place among payments innovators

to leverage the cost structure of the EFT and ACH networks. "Giants and startups alike are pursuing applications like P2P payments, B2B payment schemes, and others that make use of the mobile handset," Peabody says. "The incumbent payments industry has a pretty strong immune system for such schemes, but we expect to see niche-based successes that expand in the longer term."

Merchants will push m-commerce forward because mobile technology opens doors to providing coupons and promotions based on just where the customer is at that moment, notes Mohammed Khan, president and founder of ViVOTech, a mobile payments firm based in Santa Clara, California. For example, a person could be walking through a mall and receive a coupon good at a mall merchant for the next hour. "Such promotions based on the customer's immediate location are valuable to a merchant, who would pay an ISO or acquirer well to provide them," Khan observes.

The coupon would be downloaded into an electronic wallet in the cell phone and carried to the merchant location, where a contactless reader could read it. No paper would be required, Khan explains. Or an electronic gift card could be downloaded into a cell phone, he adds. Very large merchants might do such merchandising on their own, but most would need help from their ISO or acquirer, he points out.

Creating a new payment infrastructure is a big job, and the operators of the current infrastructure enjoy a head start. "We've been in the business for a long time, and we know how to provide security and guard against fraud," says Discover's Ahmad. "There will be new players, primarily small technology firms, that are eager to enter the mobile payments world but don't have the backbone technology to support it. It's my job to make sure we offer the best experience and move the infrastructure of wired payments into the wireless world so well that nobody will be looking for an alternative." That gives the banks and card brands an early lead but no guarantee of final victory. **TT**

Richard H. Gamble is a contributing writer to Transaction Trends. Reach him at gamble10@earthlink.net.

Who else wants the smarter alternative to free terminals?



Team up with Resource Leasing Company and provide terminals at no cost to you.

Yes, there's a better way—better for everyone. With affordable financing from RLC, merchant acquirers build profitable, lasting relationships.

Better for you

- No more giving away terminals
- We take care of all billing and servicing
- We handle tax compliance in all jurisdictions

Better for your clients

- No capital outlay
- No inflated price as with other leasing programs—just a modest payment
- Reduces risk of obsolescence as equipment evolves
- Options at end of lease



RESOURCE LEASING
C O M P A N Y

**Short-term rentals, too!
Ideal for seasonal merchants.
Visit resource-leasing.com,
or call 877-767-7368 x101**