

# Today's Vision,



## KEY NOTES

- ▶ Taking on a more consultative role requires ISOs to predict the next wave of payment technology and begin educating merchants on options that may fuel future growth.
- ▶ Pay-at-the-table transactions should take off as restaurateurs discover the economic benefits, such as the ability to convert credit and offline debit transactions to online PIN transactions, and the enhanced security features.
- ▶ Contactless opens up the unattended and cash-dominated space, such as vending machines, parking meters, and retailer kiosks.
- ▶ The next wave of biometric payment applications will likely answer consumer demand for enhanced mobile payments security in brick-and-mortar stores.

# Tomorrow's Technology

By understanding emerging consumer and technological trends, ISOs can act as consultants to their merchant clients

By Julie Ritzer Ross

Not only are emerging high-tech applications opening new markets for ISOs, they're creating long-term business opportunities. Merchants are increasingly relying on ISOs' knowledge of products and services to devise strategies that will foster growth and keep them competitive. But effectively stepping into that consultative role requires that ISOs stay on top of payment processing evolution and its catalysts.

"The consumer mindset is 'I want to use my card everywhere,'" says Heidi Goff, president and managing director of the Americas at Hypercom. "Listening to your customers and moving swiftly to meet evolving market dynamics and demands with innovative and trusted solutions is essential."

## Payments A-Z

The first mobile payments—"line-busting" solutions for accepting credit and debit cards anywhere within or directly outside a store—debuted more than a decade ago. Since then, attention has turned toward other emerging mobile payment offerings, including pay-at-the-table applications and other mobile terminal options.

"The electronic payments industry has been talking about mobile for a long time, says Goff. "The momentum is only now starting to build. We have learned from the mistakes of others, and we are bringing to market breakthrough products and solutions to help ISOs and their customers," she says, referring to the recent surge in hardware and software systems that accept payments from almost anywhere.

For example, Hypercom recently unveiled its Mobile POS Solution Suite, which allows credit, debit, gift, loyalty, check, ACH, and EBT/food stamp transactions to be securely processed from or by restaurants, stadiums, outdoor markets, home delivery services, taxis, and any other U.S. merchant location where wireless payment terminals are now used.

"Again, the push ties into consumers' preference for flexible payment options," Goff explains. Other evolving payment applications include the following:

■ **Mobile terminals.** Experts say ISOs should anticipate a spike in the use of cellular technology as vendors and card associations develop alternatives to traditional mobile terminals.

"The new terminals already in the mar-

ketplace are affordable, but some merchants are very open to another cost-effective form factor,” such as cell phones with integrated readers for magnetic stripe cards and/or slots for handling chip-enabled cards, notes Elvira Swanson, senior business leader of global corporate relations at Visa USA.

WAY SYSTEMS, for example, has already jumped on the bandwagon with the Mobile Transaction Terminal (MTT). Billed as offering the capabilities of a POS terminal, the product consists of a mobile phone, smart card reader, magnetic stripe card reader, and optional mobile printer.

Service-oriented businesses, such as electricians, plumbers, painters, and contractors, are likely to adopt mobile payments because they can improve customer service. Rather than generating bills long after the service is rendered, these merchants can receive payment on site. Similarly, ISOs should note that this customer convenience may be particularly compelling for merchants whose business is heavily entrenched in delivery, such as pizza parlors and dry cleaners.

■ **Pay-at-the-table options.** So far, pay-at-the-table applications, which allow restaurant patrons to use mobile devices to initiate PIN-based card transactions from their seats, have modest market penetration. However, deployment should “really cascade,” as restaurateurs discover the product’s economic benefits, such as the ability to convert credit and offline debit transactions to online PIN transactions and its enhanced security features, predicts Paul Rasori, vice president of global product marketing at VeriFone. VeriFone, for example, has added a component called VeriShield to its wireless handheld V670 Bluetooth payment solution that encrypts data inside the hardware, removing any usable data from restaurateurs’ systems and rendering it useless during a security breach.

Some ISOs may want to pitch more consumer-friendly second-generation applications, which are beginning to emerge. These products allow patrons to settle their meal tab on their own, rather than wait for servers to bring hand-held devices to their table. One developer, Tabletop Media, is launching a wireless, interactive solution that can be placed at every table in a given establishment. It enables guests to split their checks, add tips, and choose to e-mail or print their receipts at any point during their meal. Ingenico is also retooling its Pay@Table solution to accommodate mobile payments not only at restaurant tables, but also curbside and at consumers’ homes. The product’s software permits customers to pay for deliveries using any combination of cash, debit, and credit.

“The real selling point for pay-at-the-table will be its role in making restaurants more efficient,” says Tomas Levi, Ingenico’s director of product marketing for North America. “And the more flexible a solution ISOs can present, the faster we will see conversion in the SMB sector.”

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■ **Short message services.** Slightly farther out in the mobile field is the evolving short message services (SMS)—or text messaging—payments space. Applications designed to receive real-time SMS payments from consumers’ cell phones are now being developed. These systems feature gateways that transfer text information from a cell phone signal to an Internet signal, and then transmit it to the financial institution and merchant.

Two years ago, PayPal introduced PayPal Mobile, which uses SMS transmissions to instruct PayPal to switch funds from sender to recipient. Last summer, PayPal followed up with PayPal Mobile Checkout, a service that allows individuals with PayPal accounts to use SMS to purchase from online retailers’ mobile Web sites.

Earlier this year, outdoor gear retailer Moosejaw Mountaineering began accepting PayPal for payment in its stores, becoming the first retailer to do so. Once an order is rung up, the cashier provides the customer with the amount of the sale and the e-mail address of the store. Customers who can access the Internet through their cell phones can log in to their PayPal Mobile accounts and e-mail the funds to the store; those who cannot can initiate payment through a text message.

“Given the popularity of text messaging, there is every reason to assume SMS will catch on,” predicts George Peabody, director of emerging technology advisory services at Mercator Advisory Group.

■ **Contactless Options.** “Contactless is poised to go way beyond a key fob or chip-enabled card,” says Gerritt Kerkstra, group head of acquirer relations and U.S. PayPass sales at MasterCard. “There has been some talk that contactless adoption is slow, but it’s truly growing at a faster pace than pinpads ever did.”

In cooperation with card associations, vendors and banks are developing contactless applications for cash-only payment situations. For example, U.S. Bank and USA Technologies recently partnered to install 400 contactless vending machines in the Denver area. The machines accept payments executed via Visa payWave-enabled contactless debit cards issued by the bank.

“For ISOs, contactless opens up the unattended space, whether it’s vending machines, parking meters, or retailer kiosks, as well as any segment that requires quick service and was previously dominated by cash—such as fast food restaurants, movie theaters, transportation, and stadiums,” says Cathleen Conforti, global PayPass product manager at MasterCard.

In the same vein, ViVOTech Inc. has launched the ViVOPay Kiosk, an add-on contactless payment module that bolts onto existing and new kiosk systems. It’s designed for installation in self-ordering kiosk systems, including parking meters, ticket validation/payment machines, transit turnstile systems, airport self check-in systems, and on-bus ticket acceptance machines, for example.

■ **Near-field communications.** Using radio frequency to enable secure communication between devices, near-field communications (NFC) is another form of short-range contactless payments technology. In an NFC payment scenario, credit, debit, or loyalty program information is embedded into cell phones or other hand-held devices to create an electronic “wallet.” These devices replace fobs or chip-enabled cards to initiate transactions.

“Explosive growth in the NFC infrastructure, including the development of software and front- and back-end technology, will bring significant commercial rollouts of NFC in the short term,” says Mohammad Khan, president and founder of ViVOtech. “In 2009, there will be millions of units in place; in 2010, tens of millions; and in 2011, hundreds of millions.”

In the future, consumers may also use NFC-enabled devices to download coupons and loyalty program offers when they are within proximity of special contactless readers.

“For ISOs, the beauty of this will not only be the sale of the technology, but the ability to sell merchants of all kinds on the value-add of a loyalty program that engages customers,” says Peabody.

■ **Biometrics.** Although mobile and contactless applications account for the lion’s share of development in the electronic payments landscape, biometrics should be on your radar as well. Online businesses and their customers are pushing to replace password-based authentication methods with more secure options, which is driving innovation.

“With some analysts estimating e-commerce growth to reach \$230 billion by the end of this year, e-retailers and the like are increasingly requiring ways to easily and securely identify customers, while protecting themselves and consumers from payment fraud,” says Brian DeGonia, senior manager of biometric fingerprint solutions vendor UPEK.

UPEK recently partnered with IDology Inc., a vendor of identity and age verification solutions, to configure an identity verification and authentication solution for use on notebook PCs equipped with biometric sensors. The solution combines IDology’s ExpectID product with UPEK’s Authentication Service and uses a swipe of a finger to access Web sites and make online purchases.

The next wave of biometric payment applications will likely answer consumer demand for enhanced mobile payments security in bricks-and-mortar stores. Such applications, which will probably use fingerprint biometrics to “unlock” phones and other hand-held devices, have yet to be introduced. However, advocates foresee them not only as gaining rapid momentum once they are unveiled, but also as fueling the growth of mobile payments because they will offer consumers another layer of assurance.

“Consumers are just as concerned about protecting their data when completing transactions in stores as they are about safeguarding it online,” DeGonia asserts. “Biometrics addresses this concern, and therefore has strong potential to remove barriers to mobile payment acceptance.”

Some industry observers, however, question whether biometric payment applications have more growth potential than solu-

tions in which consumers scan their fingers at the point of sale. For example, Solidus Networks Inc., which offered a biometric POS solution known as Pay By Touch, recently filed for bankruptcy protection and closed its biometrics unit. Consequently, some financial analysts believe that consumers aren’t prepared to embrace technology that relies on biological information as a means of identification.

Others say that there is a difference between solutions such as Pay By Touch and those that reside on PCs or mobile devices. With the latter, says DeGonia, encrypted fingerprint templates are stored inside units’ processors—rather than on a server. All “matching” of submitted and stored fingerprint data is performed locally, with little or no potential for biological markers to fall into the wrong hands.

“Biometrics definitely will continue to be an area to watch,” says Terry McLoughlin, director of business development for North America at Ingenico. “But then again, so will contactless and mobile. ISOs that keep their eyes on all the balls currently in the air can best advise merchants on which avenues to pursue,” strengthening their portfolios in the process. **TT**

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