

Preparing for EMV in the United States

Recent initiatives make it a safe bet that EMV will soon be adopted in the United States.

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Although it may take some time, one thing seems certain in the financial industry: EMV technology is on its way to the United States. And in order to make the transition as painless as possible, independent ATM deployers need to know what they will be facing.

EMV stands for Europay, MasterCard and VISA, a global standard for inter-operation of integrated circuit or “chip” cards and IC card-capable point-of-sale terminals and ATMS for authenticating credit and debit card transactions. EMV cards contain a computer chip that is capable of securely storing data that uniquely identifies the card and authenticates the cardholder.

EMV systems have become dominant in Europe and parts of the Asia-Pacific region in recent years, usually under a name, such as “chip-and-pin.” Canada is currently implementing EMV, with the end of 2012 as the deadline for conversion. Mexico and Australia are not far behind.

With chip-and-PIN technology, banks embed a microchip in customers’ cards; a cardholder inserts his card and it is retained into a PIN pad terminal or a reader to make a purchase. Once the



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reader verifies the card, the cardholder enters in his four-digit PIN and the card is returned when the transaction is complete.

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— Ellen Richey, chief enterprise risk officer at Visa Inc.

Why make the switch?

ATM-related fraud in European financial institutions fell 14 percent in 2010 and 36 percent the year before, according to the Edinburg, Scotland-based European ATM Security Team (EAST), a nonprofit organization focused on gathering and providing information to the European ATM industry and facilitating effective representation of ATM related security issues.

Fraud costs the U.S. card payments industry an estimated \$8.6 billion yearly, or 0.4 percent of the \$2.1 trillion in card volume annually, according to the Boston-based consulting firm Aite Group LLC. And as the card industry in other parts of the world become more secure, payment card fraud has increased in the United States.

On the other side of the coin, there are more than 400,000 bank and independently owned ATMs, 2 million payment card terminals and 600 million credit and debit cards in the United States, all of which would need at least some modification. U.S. financial institutions would need to spend at least \$8 billion making the switch to EMV.

For example, a magnetic-stripe card costs 19 cents compared with \$1 for a chip-and-PIN card, according to Needham, Mass.-based research firm TowerGroup. The cost of upgrading the U.S.-based ATM market is pegged at nearly \$500 million and the cost of upgrading U.S.-based POS terminals is estimated to be nearly \$6.8 billion.

Ultimately, then, it comes down to balancing fraud losses with the cost of making the switch to EMV. However, an August 2011 initiative by card issuer Visa may be the tipping point for making the move to EMV.

The key point of the Visa initiative, the counterfeit fraud liability shift, essentially means that after October 1, 2015, merchants who fail to invest in EMV technology will be liable for any fraud that occurs if that fraud could have been prevented with EMV. Today, card processors generally absorb most fraud losses.

“Dynamic authentication is the key to securing payments into the future,” said Ellen Richey, chief enterprise risk officer at Visa Inc. “Adding dynamic elements to transactions makes account data less attractive to steal and takes more merchant systems out of harm’s way, shrinking the battlefield against criminals. The migration to chip technology will be an important security layer and a critical step in a comprehensive strategy to use dynamic authentication across all markets and all channels.”

In addition, as other countries adopt EMV in their own markets, travelers to the United States will find that they can’t use their cards in U.S. machines, and vice versa for those traveling from the United States to Europe and elsewhere.

“Eventually, you will see a push from consumers,” said James Phillips, vice president of sales and marketing with Long Beach, Miss.-based ATM manufacturer Triton.

The company helps its customers deploy EMV in the U.K, South Africa and is currently deploying EMV throughout Canada.

“They’re going to be calling their banks wanting to know why they can’t use their ATM cards in those countries,” Phillips said. “It’s going to become a burden for those customers.”

And as criminals find it more difficult to ply their trade in countries where EMV has been deployed, ATM fraud invariably rises in those areas where it has not. That phenomenon will likely drive increasing ATM fraud in the United States.

Preparing for EMV

For independent ATM deployers, a major step in making the switch to EMV will be installing new hardware. Part of that includes outfitting the machine with a card reader that accepts and reads the chip embedded on the card.

“Luckily, the EMV card reader is similar in size to current mag-stripe dip readers and usually is an easy field replacement,” said Dan Swain, vice president and general manager of ATMGurus, a parts, repair, and training provider for all popular retail ATM brands.

“Make sure your manufacturer provides an upgrade kit with instructions, so a service technician can properly install it in the field,” Swain said. “Take the time to contact an IAD in a country that has already implemented EMV to see what challenges they faced.”

A challenge deployers faced in upgrading to EMV is that the process doesn’t end up



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generating new revenue, so it may be a difficult pill to swallow for those operating on tight margins. Still, although it may seem worthwhile to hold off on making the investment until absolutely necessary, that may not be the best plan.

One of the first steps that occurred in Canada in preparation for EMV was a requirement that new ATMs be EMV-capable. The next was to require that a 50 percent of an IAD’s installed base be made EMV-capable by the end of 2010.

IADs faced fines for failing to meet the 50 percent goal, with fines starting at \$100 per machine. Those who fail to meet the goal by the end of 2011 will face a \$500-per-machine fine.

Unfortunately, those who put off upgrading their machines until the last minute may be faced with equipment shortages

Steps to EMV deployment

What do I need to think about when deploying EMV technology?

Keep the card reader clean! Since the card reader for EMV makes contact with the card itself (when reading the chip), it will need to be properly maintained on a consistent basis. Get EMV card cleaners and implement as part of a first line routine, or as a standard preventive maintenance program.

Is the card reader serviceable? Check with your manufacturer to make sure the EMV card reader is serviceable. Is it field repairable? Does the manufacturer provide a repair service?

Does the consumer understand how the EMV card and card reader function? Remember that the card stays in the card reader for at least part, if not all of the transaction. Should I implement a screen graphic or sticker showing the consumer the proper procedure for use of an EMV card?

Source: ATMGurus

and end up paying fines or even see their machines disconnected from the network even though they intended to comply with the new regulations.

“What happened in Canada was that many people waited to meet the 50 percent deadline because they weren’t sure that the dates were real,” said Shaun King, vice president, international sales with Triton Systems and ATMGurus. “They then came to the manufacturers in October or November, and demand outstripped supply. People were scrambling to get their ATMs upgraded and the parts they needed were out of stock.”

In addition, waiting to upgrade means less time for testing and certification, which could lead to fines or downtime while unforeseen software or hardware issues are being corrected. Although there aren’t

deadlines set in the United States for EMV deployment, waiting can certainly compound the risk of not begin prepared should such deadlines be implemented.

Another part of the process involves installing new software. For some older machines, a software upgrade may not be possible; meaning the machine itself will have to be replaced. For other machines the manufacturer may be able to develop software to handle EMV transactions. In Canada, for example, Triton Systems developed an EMV upgrade for its legacy ATMS such as the 9600.

And as EMV is deployed in the marketplace, deployers will need to familiarize users with the technology.

“What we’ve found in Canada is that there is a certain amount of consumer training

that needed to happen,” Phillips said. “It’s a different type of transaction than just swiping your card. With an EMV transaction, the machine holds the card until you complete the transaction, and it is a bit of a challenge for cardholders to re-learn.”

Also, consumers at first may forget that they need to enter a PIN as well as part of the transaction.

And ultimately, working with knowledgeable partners will go a long way to ensuring a smooth transition.

“We’ve provided a low-cost solution for virtually our entire estate of ATMs, so we have a technical solution,” King said. “We’ve got a history of doing this with IADs and we’ve done it in multiple mar-

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— Shaun King, vice president, international sales with Triton Systems and ATMGurus

kets, and we’ve already faced the trials and tribulations involved with the process.”

About the sponsor: With more than 200,000 installations in more than 24 countries worldwide, Triton has been a trusted leader for affordability and service for 30 years. Triton’s full line of ATMs for retail locations and financial institutions are designed and assembled in the United States at a state-of-the-art manufacturing facility in Long Beach, Miss. In addition, Triton offers world-class customer support, parts, service and training via partner ATMGurus.