

Credit Cards Becoming "Smart"er

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- In response to spiraling credit and debit card fraud losses in the U.S., card issuers have begun to introduce smart cards, a more secure alternative.

With all of the credit card fraud prevalent in the U.S., as evidenced by recent malware attacks at retailers such as Target, Home Depot, and others, protecting users' credit card information has taken on heightened urgency. By the end of 2015, credit and debit card issuers in the U.S. plan to migrate to smart card technology. Nearly 130 countries have already adopted the more secure smart card technology (smart cards are also known as chip cards) that reads a computer chip that is embedded in the card rather than the magnetic strip that is attached to the back of the traditional credit and debit card.

Chip and Signature Cards

Though U.S. card issuers plan to migrate to smart cards by the end of next year, most plan to introduce "chip and signature" cards that require a cardholder's signature to complete a transaction. The predominant smart card used overseas is the "chip and PIN" card, which requires the use of a PIN rather than a signature.

The cost to produce and distribute a traditional credit card is less than \$2, while the typical smart card costs \$15 – 20. Given the number of credit and debit cards in the U.S., as well as the need to replace the transaction terminals at every retailer in the country, the conversion costs have delayed implementation of smart card technology in the U.S., though the technology was introduced over 20 years ago.

Nearly one-half of the \$11.3 billion in global credit card fraud losses in 2012 occurred stateside. U.S. credit and debit card issuers and payment systems have been targeted by fraudsters from around the world because the U.S. system is deemed to be the weak link internationally. The mounting losses that have been suffered in the U.S. have finally forced domestic issuers and retailers to incur the upfront costs associated with the introduction of the long-standing smart cards.

At present only a few U.S. card issuers offer the more secure "chip and PIN" cards, including some federal government-related credit unions, Barclays, Commerce Bank, USAA, and Wells Fargo. Most

U.S. financial institutions have begun to introduce "chip and signature" cards, including American Express, Bank of America, Chase, and Citibank. All of the U.S. card-issuing institutions that offer chip-enabled cards also include a magnetic strip on them for swiping if necessary.

How Smart Cards Work

Smart cards are nearly impossible to counterfeit due to the use of an imbedded microchip. The chip securely stores the card data that now resides on the traditional credit card's magnetic strip. In addition, for each transaction, the microchip produces a unique code that allows for secure processing. Since smart cards use cryptograms that are unique to each transaction, stolen card data is of no use to fraudsters.

The use of a smart card is a bit different than the traditional credit or debit card. Instead of swiping the smart card, you will need to insert the card into the card terminal, face up, chip end first, and leave it in the terminal for the duration of the transaction. Then, depending on whether you have a "chip and signature" or "chip and PIN" card, you will either need to sign or enter a PIN, respectively, to complete the transaction. When traveling overseas, you may be prompted for a PIN depending on the type of terminal you are accessing. If you are a "chip and signature" card user, then you will need to inform the merchant that your smart card requires a signature and not a PIN.

Summary

The brave new world of payment processing is expected to bring enhanced security for U.S. credit and debit cardholders. Given the increasing amount of credit card fraud and identity theft in the U.S., these new measures should provide enhanced financial peace of mind in this digital world.