MAKE WAY FOR THE

EMV CREDIT CARD

What You Need to Know for a Smarter POS Strategy.

CBS
CUSTOM BUSINESS SOLUTIONS, INC.

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A QUICK **SUMMARY**

By fall 2015, over half of the debit and credit cards issued to U.S. consumers were reissued as EMV-enabled cards with embedded microprocessor chips that add a layer of protection to the purchase to deter credit card fraud.

For retailers, the switch to EMV means adding new in-store technology and internal processing systems. Restaurateurs need to review their point-of-sale (POS) systems with their provider, including hardware and software, and determine an upgrade strategy that works best for them.

Read on for some background and some key points to think about.

The transition to chip cards is the largest overhaul since the introduction of the magnetic stripe to the credit card industry in the early 1970s

EMV **BACKGROUND**

EMV – named for developers Europay, MasterCard and Visa – is a global payment system that has been widely used in Europe and Asia and will soon become the standard type of credit card used in the United States.

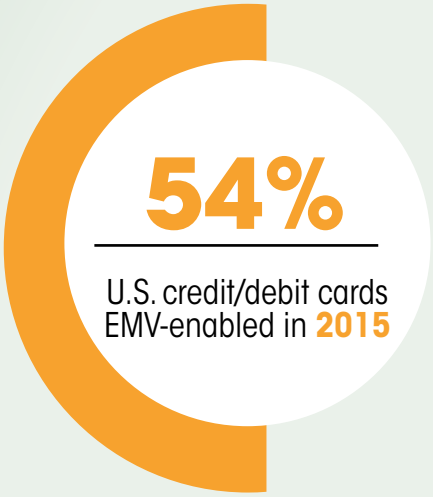
The system was developed to ensure a consistent experience worldwide, or interoperability, between next-generation, chip-and-pin based payment cards and terminals. According to the Smart Card Alliance, more than 80 countries globally are in various stages of EMV chip migration[1], including Canada and countries in Europe, Latin America and Asia. In parts of Europe, more than 95 percent of terminals are chip-enabled.

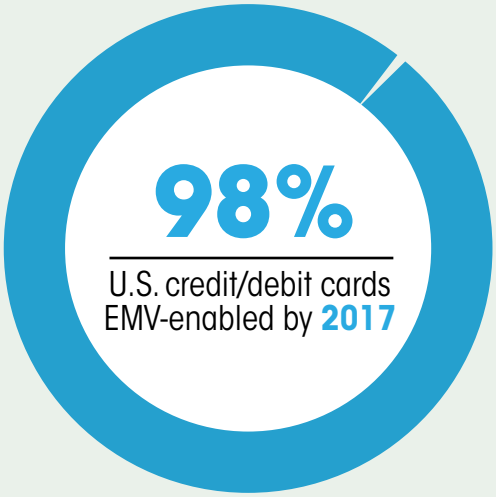
The United States is one of the last countries to migrate to EMV. But Visa, MasterCard, Discover and American Express are all moving to an EMV-based payment infrastructure here[2]. The transition to chip cards is the largest overhaul since the introduction of the magnetic stripe to the credit card industry in the early 1970s.

1. "EMV Chip Payment Technology Frequently Asked Questions," Smart Card Alliance
2. Ibid

In the United States in 2014 alone, credit card fraud tipped the scales at $16 billion dollars.

EMV BACKGROUND





Although U.S. consumers have been receiving reissued chip enabled cards, only about 54% of the 1-billion-plus credit, debit and prepaid cards in the United States had EMV chips by 2015[3]. But, it's predicted that by the end of 2017, 98% of U.S. cards will be EMV-enabled[4].

EMV debit and credit cards are embedded with a microprocessor chip that provides strong transaction security features and other applications capabilities not possible with traditional magnetic stripe cards. Traditional cards, with a magnetic stripe, hold static information that does not change once encoded by a card's manufacturer. EMV smart cards, with the chip, generate dynamic data for each transaction, which makes it harder for criminals to pick up useful payment data pieces and use them again for another purchase.

This is significant in the United States as in 2014 alone, credit card fraud tipped the scales at $16 billion dollars[5].

3. "Majority of Cards Presented to Merchants Bear EMV Chip: Report," Digital Transactions, December 16, 2015
4. "98 percent of US cards forecast to be EMV-enabled by end of 2017," Mobile Payments Today, Sept 30, 2015
5. "Credit card fraud and ID theft statistics," Nasdaq, Sept 16, 2015

EMV **BACKGROUND**

One CBS client estimated these charges at more than $100,000 a month before switching to EMV.

There is no mandate for a merchant to implement EMV but in October 2015 there was an important milestone in the U.S. transition to EMV when the Payment Networks' Liability Shift associated with EMV took effect. The major card brands – Visa, MasterCard, Discover and American Express – announced new rules wherein the liability for counterfeit transactions shifted to the party that has not implemented EMV capabilities.

Following the Oct. 1, 2015 deadline, card-present fraud liability shifted to whoever is the least EMV-compliant party in a fraudulent transaction.

The real-life impacts have been huge.
Before, if an in-store transaction was conducted using a counterfeit, stolen or compromised card, losses from that transaction would fall back on the payment processor or issuing bank. Now, they will fall to the business where goods or services were purchased - if that busines was not EMV compliant.

This also includes customers purchasing gift cards and paying for food with their own EMV card, then falsely reporting the charge to their bank as fraudulent, forcing the restaurant to absorb the dispute. One CBS client estimated these charges at more than $100,000 a month before implementing EMV.

EMV **BACKGROUND**

Consider the example of a financial institution that issues a chip card used at a merchant that has not changed its system to accept chip technology. This allows a counterfeit card to be successfully used.

The cost of the fraud falls on the merchant.

Clearly, the shift in liability has a major impact on any retailer – including a restaurant – that has not changed its system to accept chip technology.

POS
HARDWARE & SOFTWARE

The shift to EMV debit and credit cards has restaurants and other merchants across the country reviewing their POS systems for compatibility, including hardware and software.

The transition to an EMV-compatible POS strategy could prove easier for small operations that may be able to move to EMV by simply adding a new external pin pad. For example, Dallas-based Wingstop is installing add-on services to existing POS terminals[6]. The company's chief technology officer has said he expects the transition to be easier for Wingstop than for some other brands because the 550-unit chain typically has only two or three terminals in each store.

But the larger restaurant chains will likely have to invest heavily as they look to upgrade thousands of terminals and systems.

Among the many considerations for review include understanding how the EMV chip is different from PCI Security Standards and how they work together, as there exists some confusion as to whether EMV makes PCI DSS redundant[7,8].

Another major decision that has to be considered is whether to go with a dual interface – a system that accepts contact or contactless card reading.

...larger restaurant chains will likely have to invest heavily as they look to upgrade thousands of terminals and systems.

6. "Are You Ready for EMV?" QSR, January 2013
7. "Increasing Security with EMV Chip and PCI," PCI Security Standards Council
8. "What's the Point of PCI DSS If the World is Moving to EMV," by Ian Hermon, Thales e-Security

POS
HARDWARE & SOFTWARE

Just like magnetic-stripe cards, EMV cards are processed for payment in two steps: card reading and transaction verification. However, with EMV cards the once quick card swipe has been replaced by a "dip," which means inserting the card into a terminal slot and waiting for it to process. When an EMV card is dipped, data flows between the card chip and the issuing financial institution to verify the card's legitimacy and create the unique transaction data (dipping takes longer than swiping).

EMV hardware can also support contactless (or wireless) card reading including phone payments such as Apple Pay and Samsung pay. Instead of dipping or swiping, such cards are tapped against a terminal scanner that can safely pick up the data from the embedded computer chip.

The choice belongs to the merchant or restaurant. As dual interface (credit cards + tap-to-pay) is the wave of the future, the business may want to "future-proof[9]" their investment as much as possible.

Another decision has to do with whether to require a PIN, a signature or neither for cardholder authentication in a debit transaction. The Durbin Amendment gave this authority to merchants for the first time for debit cards and it is just now being phased in for magnetic stripe transactions. This decision is also based on what issuers allow on their chip-based cards[10].

EMV hardware can also support contactless, or wireless, card reading

9. "EMV in the U.S.: Putting It into Perspective for Merchants and Financial Institutions," A First Data White Paper 2011
10. Ibid

POS
HARDWARE & SOFTWARE

EMV compatibility will also bring procedural changes at the POS[11]. Customers who are unfamiliar with the chip-based cards will need to be shown the right way to insert or tap their cards in or over the devices and then to authenticate their identification. Employees will need to understand these new procedures in order to help customers and to explain the security benefits as customers complain or ask questions.

Considerations like these along with the liability shift make it critically important for restaurant businesses to review and discuss their upgrade plans with all relevant partners – especially their payments processor and POS provider.

Employees will need to understand these new procedures in order to help customers

11. Ibid

EMV: THE BENEFITS **TO YOUR BUSINESS**

A study released in Summer 2015 by Hospitality Technology reported that only a quarter of restaurants have a plan for EMV adoption[12] and yet the benefits cannot be denied.

As one major processor of credit cards has summarized[13], "EMV benefits everyone associated with your business. Consumers have fewer reasons to worry about the security of their payment information and will have a payment card that works anywhere in the world. Your business benefits from the reduction in card fraud resulting from counterfeit, lost and stolen cards."

Consumers have fewer reasons to worry about the security of their payment information

Benefits:

- Decreases fraudulent transactions and chargebacks, saving you money.
- Increases security and fraud protection.
- Prevents the use of counterfeit, lost and/or stolen cards.
- Reduces skimming cards at the point of sale.
- Improves customer convenience and speed of transaction with the capability to accept Apple Pay and other NFC payments.
- After-hours balancing procedures are streamlined and shortened.

12. "How Prepared Is Restaurant Industry for End of Swipe & Sign," Hospitality Technology, July 8, 2014
13. "EMV: What Your Business Needs to Know," Elavon

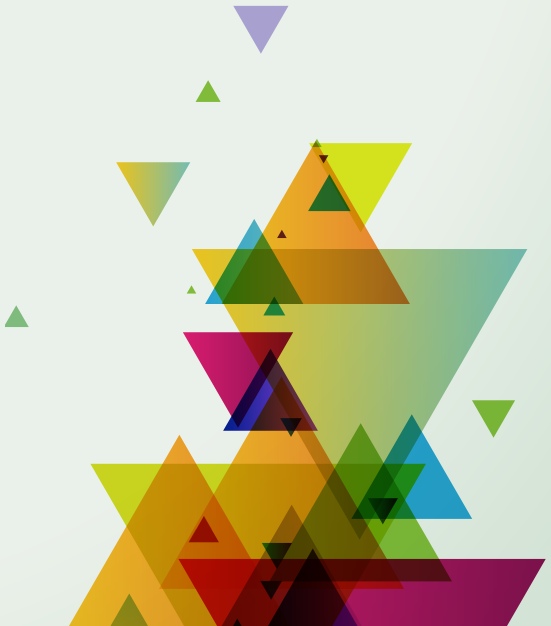
EMV: THE BENEFITS **TO YOUR BUSINESS**

Still another[14] emphasizes the dramatic increase in security and functionality that are offered by the cards: "They can be thought of as containing a system-on-a-card that protects cardholder data, payment credentials and card based applications—making it virtually impossible to extract information and create counterfeit cards, which is one of the greatest sources of fraud with traditional magnetic stripe cards."

For the quick-serve restaurant, we could see an improved speed of sale, saving time with the capability to accept Apple Pay and other NFC payments.

EMV also provides a roadmap to mobile, where POS terminals that support contactless EMV will in turn enable EMV on NFC (near field communication), meaning merchants and restaurants can take advantage of all manner of popular payment methods, as well as the latest loyalty, location-based and couponing capability of mobile .

Make way for the EMV credit card.



14. "EMV and Payment Card Issuance: Today's Challenge," Thales e-Security

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