The Simplified Guide to *EMV® for Merchants*

TSYS®

The rapid rise of counterfeit payment fraud in the United States clearly demonstrates the need for a solution. The dynamic functionality EMV adds greatly improves the security of payment transactions. EMV technology has been used in Europe for more than 20 years. The transition to EMV in the U.S. is underway. Yet many industry insiders, as well as the general public, have questions.

1. What is EMV?

EMV is the global standard for embedded-chip technology used to authenticate credit and debit card transactions with improved data security. Launched by **E**uroPay, **M**astercard® and **V**isa® (EMV) and adopted by all major card brands, chip technology is currently in use or is being implemented in more than 80 countries. The U.S. started making the migration in 2011 to ensure that smartcards can continue to be accepted everywhere — to work with EMV-compatible point-of-sale terminals and ATMs from country to country.

2. Why are EMV transactions considered to be more secure?

EMV is the best existing technology in use today to authenticate cards, cardholders and ensure that it is not a counterfeit or "cloned" card. Data on the transaction, generated by the chip, authenticates the card to the issuer. EMV transactions may also include a PIN, even for credit cards, which authenticates the cardholder to help prevent fraud from lost or stolen cards.

3. What are smart cards?

EMV-enabled cards (aka chip cards, smart cards) contain an embedded secure microprocessor. It creates a one-of-a-kind value, known as a token, to make each processing transaction unique. This is called dynamic authentication.

- **Contact Cards** — Get inserted into a card reader for transaction authentication.
- **Contactless Cards aka "Tap-and-Go"** — Use radio frequency (RF), aka near field communication (NFC), and a nearby (within a few inches) contactless-capable reader for transaction authentication.
- **Dual Interface Cards** — Cards combine contact and contactless technology and use dual interface readers for transaction authentication.

4. Why is the U.S. adopting EMV?

- Non-EMV cards are viewed as having greater fraud risk.
- The incidence of card-present fraud from counterfeiting and stolen cards has been drastically reduced in countries that use EMV technology. As a result, fraud in the U.S. has increased which is a driving factor behind U.S. adoption of EMV.
- EMV addresses the card payment acceptance incompatibility between magnetic stripe cards used in the U.S. and the widespread EMV acceptance abroad.

5. What do merchants need to know about compliance?

- The major credit card brands set multi-year deadlines in 2011 for credit card processors and merchants to transition to EMV.
- Any point-of-sale (POS) credit card fraud is the responsibility of the merchant. Liability shifted from banks in October 2015. Merchants who haven't upgraded their POS equipment to support EMV transactions (chip cards) are responsible if a counterfeit or fraudulent transaction should occur on that card.
- EMV compliance for fuel dispensers is October 2020 at which time fraud liability shifts from banks to merchants.

6. What are the goals for the EMV roadmap in the U.S.?

Long term plans for the EMV roadmap are to enable dynamic authentication across all payment channels. And in the near future, provide merchants and consumers with the true benefits of:

- Global interoperability
- Greater security and control
- Seamless integration of loyalty programs and offers
- Powering future innovation

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7. What do I need to know about EMV?

Evaluate your current risk level to help determine your needs:

- Have chargebacks been an issue for you?
- Are you a large retailer or do you sell big-ticket items that would increase the risk of expensive counterfeit transactions?
- If you've answered yes to either of these questions, you should strongly consider incorporating EMV credit card processing equipment in your business.

Know your options:

- EMV compliant terminals still support traditional payment processing and most are comparable in cost to traditional credit card machines. You can speak to your merchant services provider about affordable upgrades.