



EMV™ Insights

Helpful information to prepare you for the 2015 U.S. transition to EMV™ technology

By 2015, the total costs of fraud in the U.S. will be an estimated \$10 billion per year. In an effort to reduce fraud exposure and the likelihood of you and your customers becoming victims, First Data has adopted EMV™ technology to provide more secure transactions.

EMV™, along with encryption and our Integrated Token Services can provide a multi-layered security solution that provides data security across the entire payment process for customers, issuers and merchants.

How chip card transactions are processed

- When a customer presents a chip card, he or she will insert the card into your point of sale device. If the card supports contactless payments the customer can just tap their card. The PIN pad or terminal will provide prompts to help customers (and you) through the simple process.
- The chip card must remain inserted in the POS device during the entire transaction. If it is removed prematurely, the transaction will be cancelled.
- The customer may be prompted to enter a PIN.

EMV™ Timeline

2011: EMV™ technology was introduced with a global push for adoption

2013: In the U.S., processors like First Data were required to accept EMV™-based payments from merchants

2014: First Data reaches agreements with Visa & Mastercard to utilize US Common AID

2015: Pending fraud liability shift to POS devices (excluding Automated Fuel Dispensers)

2017: Fraud liability shift for Automated Fuel Dispensers

How to handle signature required transactions

- Some chip cards may allow for a signature, in which case the point of sale device will detect that the customer must sign for the purchase. A signature line will be printed on the receipt.
- Be sure to look for the "Issuer – PIN Verified" text on the receipt. This will ensure that your staff does not miss the fact that a signature is not required. This step is important to avoid chargebacks.

Special processes for restaurant merchants

- Chip cards that require a PIN are processed the same way you would a debit card.
- The device will prompt for the entry of a tip, giving the customer the opportunity to enter a gratuity when they enter their PIN.

EMV[®] Technology Frequently Asked Questions

Q: What is EMV[®]?

A: A micro-chip payment standard created by Europay, Mastercard and Visa over 10 years ago as a way to improve security of credit and debit card transactions and reduce fraud.

Q: What exactly does the liability shift entail?

A: Starting in October 2015, the liability shifts to the entity with the lesser technology. If the card is EMV[®] and the merchant is not, the liability will shift to the merchant. If the merchant is EMV[®] enabled and the card is not, the liability will remain with the issuer. If both the card and merchant are EMV[®] enabled, the liability will remain with the issuer.

Q: Is EMV[®] being used domestically?

A: The U.S. is the last member of the top 20 world economies to commit to a domestic or cross border liability shift associated with chip payments. By the end of 2015, it is forecast that the U.S. will have 166 million EMV[®] credit cards and 105 million EMV[®] debit and pre-paid cards in circulation.

Q. How are chip transactions different?

A. Instead of a merchant swiping a card through a terminal, the consumer retains possession of the card, inserting it themselves in the EMV[®] slot rather than swiping it through a magnetic card reader.

Q. How does EMV[®] benefit me and my business?

A: In lots of ways!

- Reduce exposure and incidents of fraud
- Improve brand perception amongst customers
- Reduce liability costs, in light of pending liability shifts
- Increase security at the POS
- Consistent processing across debit and credit cards

Q. What happens if an incorrect PIN is entered?

A. It is likely the issuer will decline the transaction. If not, a signature line will print on the bottom of the receipt, requiring the merchant to ask the cardholder to sign for the receipt.

Q. What happens if the cardholder has forgotten their PIN?

A. Because this safeguard is critical, we strongly recommend that you ask for another form of payment.

Q. What if the transaction doesn't work?

A. First, make sure the card is inserted chip side up, chip in first. If that is not the problem, remove the chip card and swipe it through the card reader. If the transaction is approved, a signature line will print on the receipt. If the transaction is declined, request a different form of payment.

Q. When is a signature required with a chip transaction?

A. Although chip cards that require a PIN will be the norm, some may be configured to allow for a signature. From the merchant's and cardholder's perspectives, nothing changes. The card must remain inserted in the terminal during the entire transaction. If a chip card is removed prematurely, the transaction will be canceled. The terminal will determine whether the card requires a PIN or signature, and the employee simply follows the prompts. When a signature is required, a signature line is printed on the receipt and a signature must be obtained. Chip card must remain inserted in the POS device during the entire transaction. If the chip card is removed prematurely, the transaction will be canceled.

Q. When is no PIN or signature required with a chip transaction?

A. When the card and terminal determine that the cardholder does not need to be verified, no PIN or signature will be required (common with quick-service establishments).



A Chip Card Transaction in Action
Begin the purchase transaction



Check for the Chip



Insert the Chip Card when Prompted



Caution: Do not remove the card until prompted



Follow the prompts



Remove the Chip Card when prompted

The transaction is complete!

For more information about EMV[®] and its impact on your business, contact a First Data Business Consultant or visit www.firstdata.com.