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U.S. General Services Administration

GSA SmartPay Payment Solutions

Chip-enabled Cards (Chip & PIN/Signature)

Increasing Security through Evolving Technology and Secure Data

With the recent increases in data breaches and fraud on magnetic stripe cards throughout the U.S., it has become vital to adopt a card solution that can help reduce fraud on card present transactions. Chip and PIN/Signature cards are innovative card products where a microprocessor chip is embedded into the card to create extra security. The chip creates a unique one-time code known as a "cryptogram" with each transaction. As a result, it is much harder to counterfeit these cards compared to traditional plastic cards, since a cryptogram is produced by the chip during each transaction and cannot be generated without the physical card. Therefore, they offer significant protection against "card-present" fraud.

How Do They Work?

The great thing about these cards is there will be a large reduction in fraud, but very little change for the cardholder. Rather than swiping the card at the point of sale, the user instead just inserts it into a card-reading terminal and presses a button. The terminal will then request either a signature or PIN to complete the transaction. The user will leave the card in the terminal throughout the entire transaction and only remove it when prompted to do so, once the transaction is completed.

These chip-enabled cards encrypt transaction data differently for each purchase, due to the embedded microprocessor chip that greatly mitigates fraud. In addition to capturing the card number, expiration date, cardholder name and the CVV code, the terminal will also create a dynamic "cryptogram" to complete the transaction. As a result, even if someone stole the card account number, that thief would need the physical card as well as the proper PIN or signature to complete a card-present transaction.

While the merchant community works to migrate their terminals over to Chip and PIN/Signature capability, the cards issued with the chip can still be used for phone and online purchases, and can be used physically at those merchants, as the cards will continue to have a magnetic stripe on the back for swiping in the merchant credit card terminals.

History of Chip Technology

France was the first country to begin using the chip-technology standard for payment in 1992. By 2006, the UK had fully deployed EMV (EuroPay, MasterCard, Visa) technology. It is now used in over 130 countries. Believe it or not, the U.S. is one of the few industrialized nations that has not fully migrated to the chip technology standard!

There are currently over 1.2 billion EMV chip-enabled payment cards in circulation and that number is rapidly growing. These cards are already accepted by many merchants and are set to become an industry standard in the US.

Why Now? The "Liability Shift"

Beginning in October 2015, merchants who have not invested in a payment system that accommodates chip technology will be held financially liable for any fraud that occurs when a chip card is used at the point of sale but not processed through a chip reader. However, if the merchant does have a chip reader and a magnetic stripe card is used, the fraud liability will still rest with the card issuer. As a result, many card issuers, including the GSA SmartPay banks, are automatically issuing Chip and PIN/Signature cards to customers to reduce the risk of being liable for fraud that might occur.

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Although the terminals for travel and purchase cards will mostly be switched by October 2015, the liability for fleet cards shifts in October 2017, so those terminals will be updated later.

The issuance of Chip and PIN/Signature cards under the GSA SmartPay program will support the Executive Order on "Improving the Security of Consumer Financial Transactions," signed by President Obama on October 17, 2014. For additional information on that Executive Order, please visit: **http://www.whitehouse.gov/the-press-office/2014/10/17/executive-order-improving-security-consumer-financial-transactions**.

Now is a great time to begin using a GSA SmartPay Chip and PIN/Signature charge card since many merchants will be converting their systems to accept these cards.

FAQs – Quick Reference Guide

How can Chip and PIN/Signature Cards Benefit My Agency?

1. **Increased Security and Fraud Reduction:** One of the major advantages of making in-person purchases with chip-enabled cards is increased security and fraud reduction, due to the embedded microchip. Data from a traditional card with a magnetic stripe can easily be copied with a simple and inexpensive card reading device. The payment information on a magnetic stripe card never changes, making it more likely to be copied or used for fraudulent purposes. Chip-enabled cards (i.e. Chip and PIN, or Chip and Signature), on the other hand, have an embedded microchip that creates a unique code for each transaction made at a chip terminal. This provides better fraud protection than traditional cards. It also makes it much harder for criminals to steal the information and create a counterfeit card. The growth of fraudulent activity is one of the main reasons the industry has moved toward chip-enabled card technology.

   Since so many other countries have already adopted this technology, many fraudsters have started targeting the magnetic stripe cards still primarily used in the U.S. Therefore, there is an increasing need and value for the U.S. to convert to chip-enabled cards too, since magnetic stripe cards are compromised much more frequently. The countries that adopted chip technology also saw large decreases in fraud soon after implementing the chip card solutions. Merchants will also appreciate the reduction of fraud and related chargebacks.
2. **Global Acceptance:** Another significant advantage of chip-enabled cards is that they are globally accepted, eliminating the need to obtain additional cards for use abroad, which will help standardize point-of-sale experiences.
3. **Ease of Use:** Cardholders will not need to make many changes, as they simply insert the chip cards into a chip terminal instead of swiping the card in a magnetic reader. The cardholder will then be prompted for either a PIN or signature to complete the transaction. If a merchant does not yet have a chip terminal, the cardholder would simply swipe the card as usual since it still has a magnetic stripe. For phone and online purchases, the transaction may also be completed as usual.
4. **Time Savings:** Having a chip-enabled card with extra fraud protection will reduce the time associated in dealing with fraudulent transactions for card-present fraud, including the time to dispute the transactions and the time waiting for a reissued card.

Who Do I Call if I Need Assistance with my Card?

If you need assistance with your Chip and PIN/Signature card after you receive it, please contact your SmartPay Bank at:

Citibank: (800) 790-7206

US Bank: (888) 994-6722

For more information on Chip and PIN/Signature technology, contact your bank directly or visit the Payment Solutions section of the GSA SmartPay website at: **https://smartpay.gsa.gov/about-gsa-smartpay/smartpay-saves/payment-solutions/emv**.

Or contact GSA SmartPay at: **gsa_smartpay@gsa.gov**, or **https://smartpay.gsa.gov**.

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