



#### WHAT IS THE EMV STANDARD?

EMV is a standard for globally interoperable, secure payments. The key element of EMV involves including dynamic digital data in every transaction. This makes these types of transactions extremely secure and reduces the risk of fraud. EMV is an open-standard set of specifications for smart card payments and acceptance devices. The EMV specifications were developed to define a set of requirements to ensure interoperability between chip-based payment cards and terminals. EMV chip cards contain embedded microprocessors that provide strong transaction security features and other application capabilities not possible with traditional magnetic stripe cards.

WHAT ARE THE BENEFITS OF EMV?

The biggest benefit of EMV is the reduction in card-present fraud resulting from counterfeit, lost or stolen cards. EMV also provides interoperability with the global payments infrastructure – which enables consumers with EMV chip payment cards to use their card on any EMV-compatible payment terminal.

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#### WHAT DOES EMV MEAN?

EMV is an abbreviation for Europay, Mastercard and Visa, the three organizations that developed the initial specifications. Today, EMVCo manages, maintains and enhances the specifications. EMVCo is owned by American Express, Discover, JCB, MasterCard, UnionPay, and Visa.

#### HOW DOES EMV REDUCE FRAUD?

In the digital world, payment transactions are getting smarter. And at the heart of these smarter transactions is dynamic authentication, which incorporates unique information in each transaction making it virtually impossible to replicate. The EMV standard has already been adopted by more than 80 countries where it has significantly reduced counterfeit card fraud, saving hundreds of millions of dollars. Our goal is to help reduce fraud in the Jamaica too.

### WHAT IS THE DIFFERENCE BETWEEN 'CHIP AND PIN', EMV AND CHIP CARDS?

There is no difference between the three terms. Chip and PIN, EMV and chip cards all refer to the same technology.

#### HOW WILL I RECOGNIZE A NEW CHIP CARD?

The new cards still look like your regular credit card. They have the familiar magnetic stripe on the back. The smart bit is in the chip which is a clearly visible, metallic square on the front of the card. Inside this chip is unique data that significantly reduces the possibilities of counterfeiting.

### WHAT IF I ENTER THE CHIP INTO MY TERMINAL AND IT DOES NOT WORK?

You may try up to three times to have your terminal read the chip card. If the terminal continues to return chip error, the terminal will indicate to go to "fallback". The transaction must then be entered as a magstripe transaction following the terminal prompts.

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### HOW WILL EMV IMPACT THE WAY IN WHICH I CURRENTLY PROCESS TRANSACTIONS?

The steps to process a transaction with an EMV card are different from a traditional payment card.

When a chip payment card is presented at the check-out counter, employees should complete the following steps to process transactions:

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STEP 1:	Check customer's card to ensure it has a chip.
STEP 2:	Select the currency amount in J\$ or US\$.
STEP 3:	Enter the purchase amount,
STEP 4:	Customer then inserts card chip, side up, into terminal.
STEP 5:	Customer leaves card in terminal and follows the instructions on screen. If the card is removed from the terminal during the transaction, the transaction will have to be re-started.
STEP 6:	Customer removes the card and takes printed receipt on completion of a transaction.

# Can I still process magnetic strip card transactions on my terminal?

EMV terminals will still have a magnetic strip swipe reader which enables you to continue accepting payment cards that are not chip-enabled.

### EMV secures the payment transaction with enhanced functionality in these areas:

**Card authentication** – EMV chip cards are authenticated during the payment transaction, thereby protecting merchants from card fraud and protecting cardholders from being counterfeited. EMV transactions also create unique transaction data, which ensures that captured data cannot be used to execute new transactions.

**Cardholder verification** – Cardholder verification ensures that the person attempting to make the transaction is the person to whom the card belongs.

## How does EMV chip card differ from the magnetic Strip cards?

The major differences between a magnetic strip card and a chip card, is the chip which is embedded. EMV chip cards contain a smart chip which facilitates interaction between the card and the terminal, thereby enabling transactions flow to be different than the flow of a magnetic strip card. This transaction flow is summarised in the following table.

Magnetic Strip Card At A Magnetic Strip Device	Chip Card At A Chip-Enabled Device
Initial terminal-card interaction	Initial terminal-card interaction
Terminal gets static data from card	Terminal identifies card type (chip, non-chip) Terminal and card agree on Application ID Card generates request
Request includes data from magnetic strip	Request includes new EMV data elements
	Terminal sends a validation request Generates response Terminal generates a command for the card
Terminal and card do not interact when response is received	Final terminal-card interaction
	Card validates response cryptogram if sent by issuer  Card executes command if sent by issuer

#### How are card holders verified with EMV?

EMV supports a number of card verification methods, such as:

- 1. Online PIN, where the PIN is encrypted and verified online by the card issuer.
- 2. Offline PIN, where the PIN is verified offline by the EMV chip card.
- 3. Signature verification, where the cardholder's signature on the receipt is compared to the signature on the back of the card.



