EMV Chip Card

Why in news?

Banks are in the process of replacing the existing magnetic strip debit and credit cards with latest EMV chip cards, to comply with Reserve Bank of India guidelines.

What is EMV Chip Card?

- EMV chip technology is the latest global standard for card payments.
- EMV is an acronym for Europay Mastercard and Visa, who developed this technology.
- EMV cards are chip-based payment cards with enhanced safety features that are designed to prevent fraudulent practices such as card skimming and cloning.

How do they work?

- The old credit and debit cards store the data on the magnetic stripe found on the reverse side of the card.
- This makes it easy for a fraudster to copy the data when it is swiped.
- EMV cards, in contrast, store the card holder's data on a microprocessor chip embedded in the card.
- This means that the card generates fresh user data every time the person transacts, making it impossible for fraudsters to copy his/her original data from the card.
- The other feature of EMV cards is that they use both the card and a secret PIN to complete a transaction.
- When the EMV credit or debit card is used at a terminal, it generates a unique encrypted code called a token or cryptogram, which is unique and specific only to that transaction.
- It cannot be used another time.
- The token is generated from a combination of information contained in the chip and that in the terminal.

Why is it so important?

- A recent response to Parliament stated that, in the last 3 years , India saw 3,409 cases of reported bank fraud involving credit cards, debit cards and

internet banking with the amount lost at Rs.134 crore.

- In recent times, bank customers have grappled with increasing attempts to defraud the customers.
- The fraudsters use practices such as phishing, vishing (voice phishing) and card skimming.
- Phishing is the act of sending an email to a user falsely claiming to be an established legitimate bank in an attempt to scam the user into surrendering private information that will be used for identity theft.
- Vishing is IP telephony's version of phishing and uses voice messages to steal identities and financial resources.
- The term is a combination of "voice" and "phishing."
- Vishing is the illegal access of data via voice over Internet Protocol (VoIP).

What are the challenges in using the magnetic strip card?

- The old magnetic cards are quite vulnerable to skimming.
- Fraudsters place a skimmer device inside the card swipe slot in ATMs or terminals at the point of sale, to read the customer data stored in the magnetic stripe.
- They then use this skimmed information to clone a new card with identical details.
- Or alternatively they transmit this information to fraudsters across the globe who then siphon off the account balance by shopping online.

In what way EMV chip card can overcoe the challenges faced by the magnetic strip cards?

- EMV chip cards prevent such skimming, because they do not reveal the user data to the terminal at the time of swiping the card and instead generate a cryptogram.
- Indian banks are now vying to attain global standards in product and service offerings.
- Therefore, migration to EMV cards is inevitable as it represents the latest standard in credit card security.
- Many developed countries have phased out magnetic stripe cards to adopt EMV technology.
- So, banks in India are all set to deactivate magstripe-based debit cards by December 31 , 2018 to comply with RBI guidelines.

Source: Business Line



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