

## With EMV Chips, Cards Get a Whole Lot Smarter

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If you've traveled abroad over the past couple of years, you may have been startled to find that your good old magnetic-strip credit card is no longer accepted at a lot of cafes, pizzerias and pubs in other countries. That's because the U.S. has been behind the curve in adopting the EMV "smart" cards that are standard in Europe and other regions.

But the U.S. is about to catch up in a hurry in using the cards, which employ embedded microprocessors to add extra layers of security during transactions. Here's what you need to know about these high-tech credit and [debit cards](#).

### **EMV 101**

The "[EMV](#)" comes from the names of the technology's developers: Europay, MasterCard and Visa. A chip embossed on the front of the card stores and encrypts your account information, authenticates the card when you use it and generates a unique one-time code for every transaction.

By encrypting your data, EMV chips [prevent](#) skimmers from lifting your account information the way they currently do with cards that just have a magnetic strip. They're also designed to thwart hackers who get your information in a data breach: While a hacker can create a counterfeit card with your account numbers on it, the card is useless without the one-time code the chip creates.

Other countries have used EMV cards since the 1990s, but U.S. card issuers decided to adopt them only last year, and they set October 2015 as the deadline to make the switch. Financial institutions like MassMutual Federal Credit Union are [already busy making the transition](#). That said, there will be a multiyear transition period when cards will have both a chip and a magnetic strip that can be used at merchants that haven't yet installed chip readers.

### **How the card works**

Shopping with EMV cards is easy. To use the chip functionality, you insert the card face-up into a slot in the front of new chip card readers. This lets the reader communicate with the chip, and in a few seconds you'll be prompted to verify your identity. If your card doesn't have a chip, the new readers have a slot on the side where you can swipe it as you've always done. If your card does have a chip and the retailer's systems are set up to accept it, you'll have to use the chip reader slot.

For verification, some EMV cards are set up to require a signature: You sign to verify who you are, similar to how many credit cards work now. Others are chip-and-PIN cards, where you enter in a personal identification number to verify your identity and finish the transaction.

### **How to get an EMV card**

If you're already using a credit or debit card, you may not have to do a thing to upgrade to the new standard. For most cardholders, an EMV version should arrive within the next few months. When your new card arrives, simply activate it, sign the back and get ready for a whole new level of security.