



Chip Cards Are Coming to the US – But What Are They?

2015 is going to be a big year for credit cards in the US. Whether you're a merchant, a consumer, or a card issuer, there's a big change coming to your payment technology. This is the year that Visa, MasterCard, American Express and Discover have decided to transition the US from magnetic stripe payment cards to chip cards.

What are chip cards?

A chip card looks just like the magnetic stripe credit and debit cards you already have in your wallet, but there's one important difference. Chip cards store your payment data on a tiny encrypted computer chip embedded in the card. Keeping your card number and other payment details on a computer chip allows you to benefit from two powerful technologies: encryption and tokenization. Encryption makes it much harder for your card information to be stolen during the transaction, and tokenization ensures that any stolen payment information can't be reused by criminals in the future.

In contrast, magnetic stripe cards don't encrypt or tokenize your payment information. For years, criminals have been able to steal credit card data by tampering with merchants' point of sale equipment or hacking into their point of sale software. Chip cards and readers render these kinds of attacks ineffective and make shopping with your card much safer.

How do I use a chip card?

Instead of swiping a chip card, you insert the card into a slot and leave it there until your transaction is complete. This allows your chip card to have a three-way conversation with the merchant's point of sale software and your bank, with every party checking to make sure nothing fishy is going on. If a merchant is not yet equipped to accept chip transactions, you can still use your chip card by swiping it as normal, but you won't get any of the new security benefits. As 2015 is a transition year, you will run into many

merchants who do accept chip transactions and many who don't, but you will be able to use your chip card no matter what.

Why is the US changing to chip cards now?

Most of the rest of the world is already using chip cards, including Canada and most of Europe, Latin America and Asia. The US is joining the rest of the world now for many reasons, including the mounting costs of payment fraud and the falling costs of issuing chip cards as well as the recent high-profile data breaches where huge numbers of consumer credit cards were stolen from major US retailers. Adopting this new standard makes financial sense and will make US shoppers much safer. Pay close attention to communications from your bank, because many credit card issuers will be sending out chip cards before Q4 this year.

This post is the first in a series on the migration to chip cards in the US. Stay tuned as Wind River takes a deeper look at chip card transactions and the financial implications and rule changes coming along with this shift in the industry.

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