

What Financial Institutions Need to Know About EMV

What is EMV?

EMV is a technical standard that ensures chip-based payment cards (also known as smart cards) and terminals are compatible around the world. A chip-based payment transaction occurs when a microprocessor embedded in a plastic card or mobile phone connects to an EMV-enabled POS terminal (either contact or contactless) in order to execute a payment. The smart card technology provides an additional form of card authentication for the transaction—validating the legitimacy of the payment type being used and helping reduce the use of counterfeit, lost and stolen payment cards at ATMs and retail points of sale.

Implications of Smart Card Adoption

Payment industry experts generally agree that a chip-based standard (i.e., EMV) will come to the U.S., but predictions of when and in what form vary dramatically. Smart card adoption in the U.S. is an industry-wide issue, and there is substantial education required for all participants to understand what chip-based payment enablement means to them. In the face of this uncertainty, financial institutions should start considering how smart card implementation would affect their businesses, and look into options for issuing new chip-based credit and debit cards to their customers.

Among the questions that card issuers must consider are the following:

- ✓ Contact only? Both contact and contactless?
- ✓ What applications to store on the chip?
- ✓ How to update the chip after issuance?
- ✓ How best to educate the cardholders about using the cards?

The cost of the cards, along with potential expense-balancing opportunities, is another consideration. The typical cost of a conventional magnetic stripe card is about \$0.15, whereas First Data estimates a chip-based card can cost, on average, between \$2 and \$4. Though this is a considerable increase, the initial costs of the chip card would likely be offset over time by the reduction in fraud, as well as by the savings incurred by avoiding card reissuance due to application changes (since new applications can simply be download to the chip). What's more, the new cards can be accounted for as an asset rather than an expense.

Mobile payments—whether supported by EMV or not—introduce additional complexity to the market because there are so many new business models and new players. For example, companies like Google, Verizon, PayPal and Amazon are now in the payments space, and financial institutions preparing for chip-based payment enablement need to understand how to compete against them or partner with them to leverage the technologies and business models these companies offer.

Perhaps the most important implication of EMV for banks is its extraordinary potential for card-present fraud reduction. Card fraud has always been a concern, but it was considered manageable: the revenue from card interchange was sufficient to cover the losses. The Durbin regulations have changed that equation. With less revenue from interchange, banks may need to look at reducing losses from fraud. This could be issuers' biggest consideration regarding smart card implementation.

The forthcoming card fraud liability shift is important too. Visa and MasterCard have announced dates for merchants to be smart chip-compliant or their acquirers assume the liability for fraudulent card use at the POS. Of course, this shift assumes that financial institutions have already issued EMV-compliant payment cards. The shift policy gives both merchants and institutions incentive not to lag behind in smart card deployment.

What can card issuers do now to prepare?

- Assess equipment and operational requirements, and set up parameters, controls, and procedures that support the issuance of smart cards, and subsequently facilitate the processing of authorizations and transactions initiated by these EMV devices. Issuers should also engage applicable vendors and providers to map out a potential plan. For some issuers, this may mean evaluating the possibility of outsourcing card production that is currently done in-house.
- Quickly enact an EMV-issuance strategy for cardholders that travel internationally and who are being denied when they use their magnetic stripe payment cards to pay abroad.
- Determine what a chip card implementation strategy would look like to coincide with card reissuance cycles and meet the October 1, 2015 card fraud liability shift timeline.
- Develop an education plan to help consumers understand smart cards and their benefits.

It appears some form of EMV will eventually come to the U.S. marketplace, and your organization is a key player in this very serious game. We recommend you conduct a full assessment to understand the impact of EMV on your business. Be a part of the industry discussions so you can understand and influence how the payments ecosystem moves forward with smart card implementations.

Now is also the time to get educated so you can understand the issues and the choices ahead. First Data recommends the following reading list to learn more about chip technology and related security measures for the payments industry.

First Data white paper:

[EMV in the U.S.: Putting It into Perspective for Merchants and Financial Institutions](#)

EMVCo white papers:

[A Guide to EMV](#)

[EMV Contactless Mobile Payments](#)

Smart Card Alliance white papers:

[Card Payments Roadmap in the United States: How Will EMV Impact the Future Payments Infrastructure?](#)

[The Mobile Payments and NFC Landscape: A U.S. Perspective](#)