

Calming the EMV Storm



Interview with Bastian Knoppers

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What created the "EMV storm?"

Visa and MasterCard's recent announcements about EMV cards and terminals include initiatives to:

1. Expand the Technology Innovation Program (TIP) to the U.S., which will eliminate the requirement for eligible merchants to validate compliance with the Payment Card Industry (PCI) Data Security Standard (DSS) for any year in which 75 percent or more of the merchants' Visa transactions are made at EMV-enabled terminals (terminals must allow for contact and contactless payments),
2. Build processing infrastructure for EMV acceptance by April 1, 2013, and
3. Shift counterfeit and fraud liability for EMV chip cards presented to merchants without EMV terminals to the merchant's acquirer by Oct. 1, 2015 (except for fuel sellers, which must meet requirements by Oct. 1, 2017).

Because the business case, to date, hasn't been strong enough to justify its deployment, EMV adoption has been slow. However U.S. travelers abroad have been inconvenienced – according to a study by Aite, nearly half of U.S. cardholders have experienced problems with using their cards abroad.¹ And, with more than one-third of the U.S. population holding passports (37 percent according to the State Department), that amounts to plenty of inconvenience and potential lost revenue. But the Aite study also points out that the issue of denied transactions overseas is very complicated and just adding a chip to the card will not completely solve the problem.

Some believed that the Durbin Amendment would mandate EMV fraud protection in the U.S., but that requirement was absent from the final rules. While a few merchants – most notably Walmart – have started the roll-out of EMV terminals at POS to prepare to accept chip-and-PIN cards, most retailers are reluctant to adopt new technologies that don't show a quick payback on investment.

But nothing stays the same. For a number of reasons, ranging from growing need for EMV to lay the groundwork for secure mobile payment to growing concern about more fraudsters taking up residence in the U.S., EMV deployment is on the horizon. We discussed what EMV deployment means for banks and credit unions with Bastian Knoppers. The following provides a realistic view of what we can expect short- and long-term and how financial institutions should prepare for EMV.

What is EMV?

EMV is an open-standard set of specifications for smart card payments and acceptance devices. The EMV specifications were developed as 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. EMV stands for Europay, MasterCard, Visa, some of the principal owners of EMVCo.

What are the benefits of EMV?

The biggest benefit of EMV for U.S. issuers is the potential reduction in card fraud resulting from counterfeit, lost or stolen cards. EMV also provides interoperability with the global payments infrastructure – consumers with EMV chip payment cards can use their cards on any EMV-compatible payment terminal. EMV technology supports enhanced cardholder verification methods and, unlike magnetic stripe cards, EMV payment cards can also be used to secure online payment transactions.



Where has EMV been adopted?

Eighty countries are in various stages of EMV chip migration, including Canada and countries in Europe, Latin America and Asia. According to EMVCo, approximately 1.3 billion EMV cards have been issued and 20.7 million POS terminals accept EMV cards as of Q3 2011. This represents 42.4 percent of the total payment cards in circulation and 75.9 percent of all POS terminals installed.

The U.S. is one of the last countries to migrate to EMV. Both MasterCard and Visa have announced their plans for moving to an EMV-based payments infrastructure in the U.S.

In August 2011, Visa announced plans to accelerate chip migration and adoption of mobile payments in the U.S., through retailer incentives, processing infrastructure acceptance requirements and counterfeit card liability shift.

In January 2012, MasterCard announced its U.S. road map to enable the next generation of electronic payments, with EMV the foundational technology.

Within the U.S., the contactless credit and debit (e.g. MasterCard/PayPass and Visa/payWave) cards already being issued include some EMV security features.

Why has the rest of the world adopted EMV and not the U.S.?

Issuers outside of the U.S. are including chips in bank cards and merchants are moving to EMV-compliant terminals to increase security and reduce fraud resulting from counterfeit, lost or stolen cards. The rest of the world adopted a decentralized approach to combating card counterfeit and skimming fraud by adding security features to the card and terminals so that transactions could be approved off-line. The U.S. adopted a more centralized and online approach to combating fraud, so that adding chips to cards and terminals was not necessary.

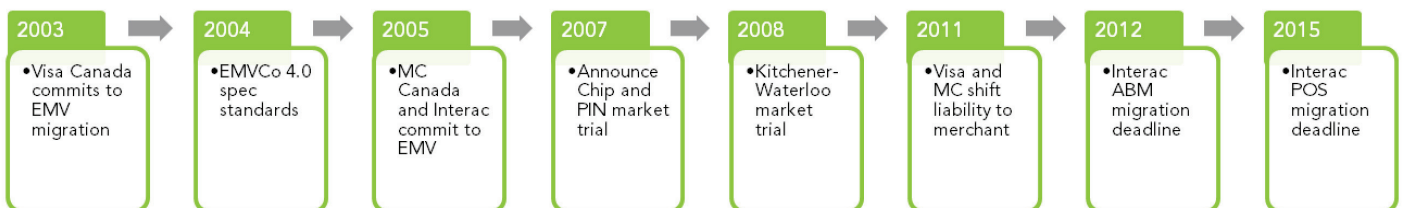
Calming the storm around EMV

Why is there such a frenzy associated with EMV?

Bastian Knoppers: There is no reason to panic about EMV. The 'tyranny of the urgent' certainly is an appropriate way to describe the EMV frenzy, and everyone just needs to take a deep breath and look at the facts. The reality is that there is no mandate, such as exists in other countries such as Australia and to a certain extent in Canada. Visa and MasterCard's announcement is an incentive, not a mandate. Until issuers are convinced that EMV terminals will be deployed in significant numbers, why start issuing EMV cards? The capability to process those transactions doesn't yet exist, and the business case justifying the issuance of EMV cards needs to be made.

We ought to pay close attention to the adoption period for EMV in Canada and Europe. The transition to EMV could easily take seven, if not 10, years to occur. This has been the case in Canada (see Figure 1). Each country's need for EMV differs. The business case for adoption in the U.S. is very different from what it has been for France, Germany, Latin American or even Canada.

Figure 1: Canadian EMV Migration Milestones



Source: The National Club, Toronto. "Mobile, Debit, and Coming Crisis." December 16, 2010

Another myth is that EMV is easy and quick – we just grab a card off the shelf and away we go. EMV represents a fundamental change in both technology and in payment processing in terms of how PINs are used. It also has the potential to allow for off-line transactions. Whatever its form, future deployment of EMV will require significant analysis and planning.

Planning for EMV Deployment

What will ultimately drive EMV issuance in the U.S.?

Bastian Knoppers: There is a long- and short-term answer.

Long Term: Terminals and cards are akin to chickens and eggs – both are necessary to make EMV work, but which comes first? The issuance of cards needs to be aligned with terminal deployment.

Merchants will have a large impact on EMV deployment. It's important to watch Walmart and listen to what the National Retail Federation is saying about EMV. Both are on record as being strong proponents of EMV. I think Walmart is a proponent of chip-and-PIN EMV because of the impact of what Walmart would pay the issuer for that type of transaction. Their terminals are EMV-enabled, but not yet deployed for EMV transactions.

We will be examining how serious the movement is toward EMV. One way to determine conversion and movement is to track statistics on EMV terminal shipments. You would want to know if there will be enough demand for EMV in 2015 to begin planning cardholder migration to chip for the next 2 – 3 years. If there is, then you will need to work EMV into your card re-issuing plans. You need to build the business case for EMV and then put together a timeline, which aligns with terminal deployment.

Another key driver in deployment will be fraud consideration. FIs need to build a business case around EMV as a fraud reduction technology. FIs need to weigh the cost of adopting EMV against the potential reduction in fraud. Confounding that comparison is the likelihood of more fraud moving to the U.S. as the weakest link for fraudsters due to the vulnerability of the magnetic stripe vs. EMV. As I've talked with Canadian issuers of EMV, they've told me that they are seeing a reduction in fraud but until the magnetic stripe technology is eliminated from cards, the full benefit of fraud reduction cannot be realized.

As demand increases for mobile payment in the U.S., more pressure will be brought to bear on deploying EMV to boost security around mobile payments. In Visa's announcement they clearly link EMV with NFC-enabled terminals. At FIS, we are looking at over-the-air personalization for smartphones so the same data that's on the EMV card in the chip would be replicated in the chip on the smartphone. The data needs to be transferred securely and quickly.

Another factor that will impact the rate of EMV deployment is clarity around technology solutions. For example, Visa has announced that its U.S. interface will be both contact and contactless technologies. That's very different from the European technology, which is a contact only card that's inserted into a terminal and held there during the transaction. The Visa dual interface card is more expensive. Ultimately EMV deployment will be driven not by the technology, but by the business cases among various stakeholders, including merchants and issuers.

Short term?

Bastian Knoppers: The most immediate concern is for financial institutions to be able to serve their customers traveling outside the U.S. Some specific financial institutions, such as credit unions that serve the military or airlines have the most immediate need for EMV.

Although some travelers' transactions are being denied, you need to look at the circumstances around why their cards aren't working and determine whether an EMV card will solve the problem. For example, the inability to make off-line transactions at places such as transit stations, parking lots and vending machines is a common problem in some countries. Those terminals are set up to accept only chip-and-PIN enabled EMV cards.

Short term, you need to do the business case around your traveling customers. You need to find out how bad the problem is for them and determine the financial implications of providing solutions to them.

The good news is that if an FI wants or needs an immediate solution, our Prepaid team offers an EMV Travel card today.

What are the cost implications for banks and credit unions?

Bastian Knoppers: Frankly, the investment and budgetary impact will be significant. If you look at what the small Canadian FIs have spent, it amounted to a sizeable budgetary item, in some cases, hundreds of thousands of dollars. Most people only think about the cost difference between the EMV card and the magnetic stripe card, but the cost per card is only a fraction of the total expense. The fixed costs can be quite high. There are upfront costs for development, platform costs and costs associated with educating your customers, as well as your employees. At FIS, we're working on solutions to make those costs more affordable for our clients, but EMV is going to be an expensive proposition for which FIs need to budget.

EMV Opportunities

What are the opportunities for banks?

Bastian Knoppers: Besides the potential for reducing fraud, EMV has other possibilities that could be very beneficial. Being able to conduct off-line transactions at terminals, which historically have accepted cash payment, could benefit issuers. Also, EMV is becoming the transaction technology of choice for mobile payments. That's why Visa is linking EMV and NFC. It's a more secure technology. Finally, there are many possibilities to tie the card into loyalty, and multiple applications to make it more useful to the consumer, thereby improving cardholder retention.

Where do we go from here?

Bastian Knoppers: There is a tremendous amount of EMV planning and work going on behind the scenes at FIS on an enterprise-wide level. FIS is well-prepared and positioned to help our clients do the analysis and planning needed to make the right decisions for EMV deployment. We are fully leveraging our international experience with EMV in both Europe and Canada to help us in this planning.

FIS' Everlink Payment Services in Canada has been involved with EMV for more than seven years and has advised many credit union and banking clients in various stages of EMV chip migration. They have assisted in scheduling, planning and implementing chip migration programs. We have leveraged their expertise and experience for our U.S. clients and will continue to do so.

Both InfoShare 2012 and FIS Client Conference 2012 this year will include a lot of updates and Buzz Sessions regarding EMV. Those will be followed by EMV webinars and EMV updates on the FIS web site.

¹ Aite. "The Broken Promise of Pay Anywhere, Anytime: The Experience of the U.S. Cardholder Abroad." October 2009