

EMV Background

- EMV – an acronym for Europay, MasterCard and Visa, the three organizations that originally joined together to develop specifications to ensure interoperability between chip-based payment cards and terminals in the mid-1990s.¹
- Today EMVCo manages, maintains and enhances these specifications.²
- EMVCo is owned by American Express, Discover, JCB, MasterCard, UnionPay, Visa and other organizations from the payments industry participating as technical and business associates.³

STATS

- According to EMVCo there were 1.62 billion EMV-compliant payment cards in use across the globe in Q4 2012.⁴
- Estimate for USA to convert to EMV is more than \$10 billion.⁵
- The typical cost of a mag-stripe card is about \$0.15. A chip-based card can cost, on average, between \$2-\$4.⁶
- Aite Group forecasts that USA mobile payments will reach \$214 billion in gross dollar volume in 2015. Having a secure, EMV infrastructure in place is critical for the acceptance of these payments.⁷
- Other countries have reported huge declines in fraud. UK fraud losses dropped more than 63%.⁸
- For the past five years, criminals now prefer the USA for using counterfeit mag-stripe cards. In fact, the USA has earned the distinction of the No. 1 country for card fraud committed abroad.⁹



EMV Smart Card Payments

OVERVIEW

EMV is a global standard for authenticating ATM, debit, and credit card transactions using microchip technology. Payment cards using this technology are sometimes referred to as SmartCards, IC (integrated circuit) Cards or Chip-and-PIN cards.

The chip on EMV cards is a microprocessor capable of both storing information securely (as encrypted data) and performing processing functions. Payment transactions can be processed either by a card reader physically contacting the chip (contact transactions) or by the reader being sufficiently close to the chip to detect it and exchange data (contactless transactions). Some cards may support only one or the other of these interfaces.¹⁰

The primary driver for financial institutions (FIs) to adopt the EMV standard is fraud prevention. In the wake of the Durbin Amendment and bank's dramatic loss of interchange revenue, every dollar lost to fraud now looms large. Aite Group reports that card fraud in the USA already costs the card payment industry (primarily issuers) \$8.6 billion a year and industry experts are concerned losses will rise as fraud migrates to the USA from smart card-enabled countries. This number is expected to reach to \$10 billion per year by 2015.¹¹ Perhaps now more than ever, FIs have good

reason to evaluate the extent to which embedded smart chips can reduce their losses from card fraud.

As a whole, the decision for the USA to migrate to a chip-based payment standard will not be a simple one and implementation will be complex. There are many stakeholders, large and small, who are intricately bound together in the payments ecosystem. A change in one area, such as at the ATM or the POS, can't be effective unless the entire ecosystem gets behind the migration.¹²

EMV vs MAGNETIC STRIPE

- Transaction information is encoded uniquely every time EMV cards are used.¹³
- Mag-stripe technology is more than four decades old and is reaching its end of life.¹⁴
- Mag-stripes contain "static" data or payment information that never changes and commonly includes cardholder's name, account number and account expiration date.
- Dynamic authentication capabilities on the EMV chip including the encrypted PIN is very difficult to clone and nearly eliminates skimming scams.¹⁵
- Black market technology enables information to be easily read from these mag-stripe cards often without the card holder's knowledge. Such as card reading devices with PIN reader overlays can be inconspicuously installed on other devices such as ATMs or retail locations using POS.¹⁶

IMPLICATIONS FOR FINANCIAL INSTITUTIONS

As the USA infrastructure is changing towards the EMV standards some of the major bank players have adopted this technology – Citi, Bank of America and Wells Fargo. But for the others the process is a slow migration because the need to upgrade to required software and hardware components can be costly and complex to implement. It is estimated that replacing cards is nearly \$3 billion, and replacing payment terminals will cost merchants more than \$2.5 billion collectively.¹⁷ But two factors are moving up FI timelines. Card fraud has always been a concern but manageable for FIs because the revenue from card interchange was sufficient to cover the losses. The Durbin regulations have changed the equation. With less revenue from interchange, FIs may need to look at reducing losses from fraud.¹⁸ There is also a ruling by Visa, American Express, Discover and MasterCard that states by October 1, 2015 a liability shift will be implemented for point of sale terminals and once this goes into effect, FIs that have not made the investment in chip-enabled technology may be held financially liable for card-present fraud that could have been prevented with the use of a chip-enabled POS system.¹⁹

BEST PRACTICES FOR EMV MIGRATION

- **Training and product awareness** at both the business and the employee level is crucial to a successful implementation.
- **Don't wait to migrate.** As more banks issuing chip cards to new and existing customers, banks that have not already migrated to EMV may consequently have to answer to their customers – especially when the market presents chip technology as the safer way to pay.
- **Get a business playbook together.** As



equipment upgrades have the potential to be both costly and time consuming, its best to get started early. Figure out how much is going to cost, how long it's going to take and plan accordingly.²⁰

BLM YOUR EMV PARTNER

When the US, as a whole, migrates to a chip-based payment standard, it will essentially put the world's major markets on one global fraud protection standard. This will reduce cross-border fraud and make it easier for all travelers to use their cards internationally.²¹ For FIs having the ability to control your fraud prevention helps to ensure that your good transactions get through and your customer is not burdened with holds or declines based on suspected fraud. Simply put, you can prevent the fraudulent transactions without compromising the legitimate ones. This will protect you, your good customers, your bottom line and your brand.²²

With our successful history and experience serving FIs, we understand the industry and the critical changes happening now and in the future. BLM can help streamline your operation by saving resources, sustaining systems/processes, securing customer information which will strengthen your customer relationships during your adoption of an EMV payment system. Let our expertise find the exact solutions that work for you and your customers. Our leadership is well recognized through the strong relationships we have with our world-class technology vendors, our customers and competitors. All it takes is one call to BLM because we have the solutions you can bank on.

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