

Mandates: Business Opportunity or Cost

The winners in the move to EMV-compliant smart cards will be the issues that successfully exploit their multi-application flexibility and keep costs low

The current global transition to EMV smart cards is the single biggest change to the card payment industry since cards were introduced. It is a change that will impact a majority of bank customers around the world and result in an unprecedented change in behaviour.

The scale of the change being undertaken should not be underestimated as the card industry is attempting to change the habits of millions of cardholders around the world. If EMV is to be a success, all the elements of the card payments process must be involved from the merchant to the Card Issuer. Careful planning and clear communication by all players in the industry are essential to ensure a seamless change in cardholder behaviour.

With only a year to go to mandatory compliance in Europe and two years in Middle East, Africa and Asia-Pacific the number of institutions ready for EMV adoption is low, even though most financial institutions and Card Issuers recognise its importance. A survey conducted by CR2 in April 04 found that less than 10% of respondents have actually started their EMV project. This increases the likelihood of a more expensive implementation than necessary with greatly increased risk as a result.

For a project of this scale many institutions do not appear to realise that there is little time left to start EMV migration projects and it is likely that there will be a surge of institutions requiring support in the run in to the deadline.

Many Card Issuers still lack the willingness to commence the EMV process and provide sufficient investment in EMV compliance. It is perhaps no surprise to see that the attitude of banks prioritising EMV has differed by region, reflecting the strength of the business case that can be built in each region. The main reasons cited by card issuers for the slow take up of EMV projects are:

- Budget Restrictions
- Lack of information
- Lack of technical skills or knowledge
- Lack of suitable products
- Implementation and testing
- Deadline too far away – not a priority

The two main drivers for the adoption of EMV chip cards are a reduction of fraud and the related shift in liability that will be imposed by the card organisations on issuers, acquirers and merchants that are not EMV compliant by the deadlines imposed.

It is this liability shift that is seen as the main driver, indicating the awareness of the issue amongst Card Issuers in the short term. The liability shift refers to a shift in the liability for a fraudulent transaction to the non-EMV party. In other words, if the issuer issues a non-EMV card and it is used fraudulently in an EMV terminal, then the issuer is responsible for the liability. Conversely, if an EMV card is used fraudulently in a non-EMV terminal, then the acquirer assumes the liability.

Chips against fraud

Over the longer term fraud reduction is the principal concern for financial institutions. The introduction of chip cards allows the merchant to ensure the card presented is authentic (EMV Chip) and to confirm that the presenter is the genuine cardholder (PIN number), reducing the risk of fraud. Card Issuers that are slow to upgrade to the new Smart Card technology will continue to lose money through fraud, and also run the risk of being identified as a weak link in the card payments solution to which fraud will be attracted and concentrated.

One of the great advantages of EMV compliant smart cards apart from the reduction of fraud is the potential they provide to process multiple applications via the smart chip on each card. These mini-computers allow the card to provide the user with value-added services including loyalty schemes and e-purse which many European banks have already implement. All of this provides the issuer with an infrastructure for new income streams.

The more useful applications a single card holds, the more indispensable it becomes. Technically there is no reason why a single smart card should not securely carry all the personal information in the average person's wallet including driving license and social entitlement details. The more a Card Issuer can tie a customer to their products or services the less likely the customer is to move their business and the more the Issuer becomes a part of the customers daily life.

A major advantage of EMV technology is that cards can be securely and easily up-dated or re-programmed over time. For example, an Issuer can update the EMV risk management parameters on the card while the card is at a terminal. This could mean raising the offline transaction limit or even disabling the card. New applications can also be loaded automatically, but this is more likely to take place at dedicated terminals or via the Internet because card holders and merchants are unlikely to tolerate the process slowing up transactions.

While Card Issuers face a communication challenge to inform and educate cardholder's in a timely fashion to ensure universal acceptance and uptake, many of the changes associated with EMV chip cards are familiar to cardholders. The concept of a PIN is well understood by consumers and by removing the need to sign for transactions will increase the ease and speed for the user. The increase in security and fraud prevention as well as the improved customer service chip cards enable should ensure a speedy adoption by customers.

Interoperability in mind

EMV has been designed to ensure interoperability between chip cards and terminals on a global basis providing customers with familiar processes and standards internationally.

To encourage early adoption, the card organisations are offering financial incentives. For example, Visa has changed it's charging structures so that chip card transactions cost banks less to process than those made on magnetic stripe cards.

In the short term it is expected that implementation will be with single application cards, which only utilize the benefits provided by the payment application on the chip. Once Card Issuers realise the potential return of extending cards to other applications, it is expected the technology will be extended to multi-application cards.

While the EMV specifications have set out the main data parameters for card product types, each of the card associations have produced their own interpretation of the specifications and provided them to Card Issuers.

It has been predicted that once EMV has been introduced, fraud will move to the areas of least resistance resulting in an influx of fraud in countries with lower security standards for financial transactions. As a result, card organizations are pushing for EMV to be adopted globally and simultaneously.

EMV framework for the security of card payments

- **Card authentication** – The means by which a terminal can ascertain that a card is genuine.
- **Risk management parameters** – The card records all transactions and decides when pre-set thresholds (cumulative or single transaction value) have been reached, so triggering an on-line transaction.
- **Off-line PIN** – Smart cards are able to store data securely, offering the opportunity for PIN verification to take place on the card itself. This saves the need to carry out a PIN-based transaction on-line.
- **Online mutual authentication** – The means by which an Issuer can satisfy himself that a transaction has genuinely come from a specific and authentic card as well as the card ensuring that the approval/decline response has been sent by the authentic Issuer.

When discussing the services that can be provided on the multi-application smart cards, it is important that the customer type is considered. Card issuers need to utilise the CRM capabilities of the card industry and target appropriate applications at the correct customer base.

From CR2's perspective the reduction in fraud that EMV will provide, generates a strong enough business case to justify undertaking a project of this size. Card Issuers should not try to over complicate the project but should be aware of the speed with which developments and change will occur on chip cards and ensure that their supplier is flexible enough to move with these developments.

CR2 is predicting a rapid adoption of additional services built on the EMV framework. EMV is a level playing field on which all issuers are equal. Differentiation will come from the ability to adopt to the very powerful product innovations being offered, for example Visa's Pre Authorised Offline Purse for small transactions.

The winners in the move to EMV compliant smart cards are likely to be those Issuers who most successfully exploit such flexibility to offer the most compelling proposition at the lowest cost.