

Making EMV work

Martin MacMillan discusses the thinking behind EMV roll-out and says that now could be the time to be a bit more adventurous with the applications.

“Testing is an important part of deploying any channel for the bank, and traditionally the testing of ATM software, hardware and networks has been conducted manually with real people, cards and machines. But, the smartest financial institutions have realised that an automated testing regime is more efficient. This will become increasingly important as EMV becomes established.”

EMV is the standard for a chip-card based payment network driven by Visa and the recently merged Mastercard and Europay that will go live in Europe in January 2005. In most countries in Europe, banks are in the process of rolling out the chip cards, ATMs and host switches that support the EMV standards.

The main business driver for introducing EMV smart cards in the UK is to combat the rising level of plastic card fraud which, according to the UK's Association of Payment Clearing Services (APACS), accounted for nearly £430m in 2002. A secondary business driver, albeit a primary one for many European countries that don't have the same fraud issues as the UK, is the multi-application capabilities and opportunities that EMV smart cards bring.

Chip cards have an intelligent processor, memory, logic, and different slots, like a filing cabinet for applications. But like desktop computers, they come in various degrees of processing power and capacity.

EMV cards have been issued by many banks in anticipation of the deadline for compliance. But so far in the UK these have been low-spec cards without the processing or storage capacity to handle multiple applications, even though this is supported by the EMV standard and operating system.

This was a decision driven by cost. But as the cost difference between the simple and more complex chips used for the cards becomes narrower, it will increasingly make sense for UK banks to embrace cards that can host multiple applications.

In European countries where the main driver and interest in the potential of EMV is from a marketing point of view, most banks are already making the extra investment to issue cards tready to handle multiple applications.

The 1st application is the payments – the cash and accounts part – which is obviously run by the bank. But subsequent applications on the card can be much more diverse, and will likely involve joint ventures with 3rd parties.

The use of multiple applications might be limited at first – perhaps to trial groups of high net-worth individuals – but eventually the case for banks to exploit this opportunity will become overwhelming.

Banks increasingly have to differentiate themselves through innovation and new services rather than price. Banks are in a good position to leverage their relationships with large customer populations, in conjunction with existing infrastructure such as ATM and POS networks, to use EMV smart cards in innovative ways. One main advantage for banks is that it's now possible to distribute products quickly and dynamically without having to incur the cost of issuing new plastic.

Because banks can write new applications to cards that are already in circulation, it becomes relatively easy to deliver new applications and promotions linked to particular

geographic areas or timeframes. The cost of these promotions is low and the chip card opens up many areas that banks may not have been able to consider in the past. These include things such as loyalty schemes, mobile phone prepay top-up services, and the distribution of special offers or coupons directly to the card.

For example, for banks who sell travel insurance, if the bank has ATMs at a port of departure such as an airport terminal, they could advertise a promotion for travel insurance that customers could sign up for via the ATM. Because the bank network is trusted, and the bank already has information about the customer, it would be relatively simple to add an insurance account to the multi-application chip card.

Chip cards issued by the bank are also likely to become popular for delivery of 3rd party offerings. As banks' cards have pride of place in customers' wallets, third parties stand to gain credibility by association if they allow their applications to be run on a bank's multi-application chip card.

The potential of chip cards has been known since their introduction in the 1980s, but a lot of the crystal ball gazing has assumed that card readers will become standard in consumer devices such as PCs, TVs and mobile phones. This vision is still some way off. For banks, the next logical step is to leverage existing infrastructure such as the ATM network to offer innovative products and services using the multi-application capabilities of the chip card.

The future challenge will be how to deploy these applications quickly and cost effectively onto customers' cards after they have been issued. A logical path to achieving this would involve distribution of the new applications via the trusted and secure ATM channel. IT departments will need to be able to keep pace with the marketing department and other parts of the bank by being able to create and test new applications in a rapid deployment cycle. Lowering the cost and timing hurdles to banks will be key in achieving the potential of multi-application cards.

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Banks have estimated that with the introduction of an EMV-compliant network, the number of tests required will multiply tenfold. Introducing the new chip card adds complexity to the dialogue between the card, the ATM, the rest of the network and 3rd party organisations – so much so that it will be almost impossible to test on a purely manual basis.

For this reason, banks that aim to get ahead of the competition are starting to plan and test programs now so that they can be among the first to make use of the multi-application capabilities of EMV.



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