BUILDING A VIABLE CONTACTLESS PAYMENT MODEL

Most of the industry is exploring the possibility of contactless, low value payments. We brought five experts, Cardis's **Nebo Djurdjevic**, Ingenico's **Nick Parsons**, Kabira's **Paul Sutton**, MasterCard's **Gavin Harding**, and Rahaxi's **Paul Egan** to discuss.

Nebo Djurdjevic is EVP of Cardis Enterprise International, joining in 2001. He has 16 years of experience in senior technical and business management roles in electronic payments, e-commerce and telecommunications with major high-tech companies such as Intellect and Ericsson, as well as three technology start-ups.

FST. How can banks enhance their payments infrastructures to retain their competitive position?

NP. We are operating in a global marketplace so it is vital that banks continue to invest in their payments infrastructure. Much of this is about enhancing customer service and providing more consistent, secure or faster transactions.

Retaining customer loyalty is a central aspect of this. For example the end result of the introduction of chip and PIN was more satisfied customers. These developments happen on a regular basis and it is important for banks to ensure they are properly prepared or risk damaging their customer relationships.

GH. By working closely together with banks MasterCard has come up with new and unique customer focused opportunities that improve the customer/end users, way of life. By continually working on and enhancing this relationship, banks can differentiate themselves from the competition while delivering greater value to their customers.

ND. We all know that competition between the banks is intense. But what keeps bank CEOs awake at night is disintermediation. The low value payments space is dominated by cash, and everybody wants a piece of it. The telcos are active in this market and we have seen new entries by entities such as Peppercoin and Dexit, with entirely new infrastructures, trying to capture this lucrative market.

Historically the banks have been extremely successful in growing the payments industry and keeping it to themselves. For electronic processing of low value payments in an economical manner, the banks must utilise this existing infrastructure by aggregating small payments into manageable and cost effective larger value debit or credit transactions. Electronic low-value payments must have four essential attributes: they must be fast, pinless, as ubiquitous as cash (or nearly so), and above all, they must carry little or no cost of processing.

PE. I genuinely think that banks can benefit in two ways in order to remain competitive. The first instance involves more convenient and user-friendly products that eliminate administration and adopt a customer friendly means of payments. By adopting mobile and contactless payment solutions both the cardholder and merchant will benefit. Not only will till queues be substantially reduced but accounting and settlement is far quicker. I genuinely believe that cash payments should become a thing of the past. By improving its service the bank will grow competitively and hence boost profits.

The second instance would involve a security aspect. Reduced cash infrastructure will also reduce the instance of crime against the payments industry. Cash related fraud costs the banking system billions worldwide. Enhanced card technology makes it more difficult for fraudsters to operate. Further investment in its security can further reduce card fraud and boost profits and safe payments.

PS. While credit card markets are now mature, debit cards have gained in prominence over the past few years due to change in consumer behaviour, bank charges and infrastructure changes. Indeed, the great success of the card industry making the credit card as good as cash led to this. Average transaction size has decreased leading to erosion in margins.

The rapid rise in lower-value transactions and the cost of maintaining older, proprietary systems were a real trigger for many of our customers. And, it's only getting worse. Over the next 10 years, other payment mechanisms will

Paul Egan is President,CEO and a founding member of Rahaxi Inc. Prior to this, Egan was VP of Inter-Leisure and also worked with ENGEN.

add to transaction volumes and reduce credit/debit market share. Internet, CNP transactions, micro and contactless payments will increase the payment volume by ten-fold over the next decade. Old infrastructure is impacted and the industry is now experiencing stability issues. Adding more hardware or new systems in parallel to existing systems won't improve margins and just increases system risk and does nothing to increase the rate of innovation. If banks do not invest in their payment infrastructures they may need to exit the card market. Otherwise, the bread and butter of the payments market will be consumed by non-banking entities like Paypal, Google, Vodafone and others.

FST. What kind of improvements using new technology can banks offer to customers in this space?

NP. Security is obviously a key benefit. Card fraud in the UK has been significantly reduced, coming down from £504.8m in 2004 to £428m in 2006. In 2006, total card fraud losses at UK retailers fell by 47 percent. This reduction follows the introduction of chip and PIN but it is important that we continue to invest in and develop ever more advanced forms of secure payment. Criminals are becoming more technically sophisticated so it is important that we stay one step ahead.

The current introduction of contactless payments will herald a new era of merchant and consumer benefits. By being able to pay for items with a value of up to £10 simply by tapping their debit card in front a reader consumers will enjoy faster transactions, shorter queues and greater ease of use by not having to carry coins. Merchants will see increased revenue thanks to shorter checkout times and diminished dropout rates.

PS. Today, banks take one of two forms – big or niche. The big players must offer reliable and low-cost transaction processing engines to their customers (cardholders and merchants). I am seeing the larger players invest in newer technology such as Kabira's and replacing siloed older infrastructures, because they are motivated to drive down the cost of processing each transaction by at least 50 percent.

We are seeing the niche players using our same technology because they compete best by improving their service offering – they now bring new products to market in much shorter timeframes than their competitors. Historically payment services might take six to 12 months to come to market because of the inherent drag of technology. They realise this can now be in as few as two to three months.

PE. Investment in technology can improve the competitiveness of banks and customers service levels in two ways. First, ongoing technology improvements such as maintaining PCI DSS compliance, card security programmes and so on must happen regularly.

Second, investments in new technologies to boost customer service and convenience can really see positive results. The payments industry has been quite homogenised for some time so product differentials acquire significant attention. The classic convenience feature for a merchant would be mobile payments solutions, while the equivalent for a customer would be contactless payments. Add in increased payments security to the mix and you boost merchant, cardholder and bank satisfaction as a result of a clever product differential.

ND. The banks have invested heavily in EMV chip technology. Some markets have already moved in this direction and others are close behind them. There are supporters of contactless technology who believe that this technology is the solution for electronic low value payments.

However, technology alone can never be the solution. Electronic payments today, even if they are contactless and off-line, have certain issues that must be overcome for a low value payment transaction to be viable. Each payment today has to be cleared and settled individually and provided to customers on monthly statements. Transactions are subject to interchange. Low value payments cannot afford to carry that kind of baggage. The banks need a strategy of leveraging technologies to develop new solutions. Merely applying a new technology to an existing payment process can permit the banks to move slightly down the 'ticket size' chain, but can never make the transaction profitable for the banks, with fees acceptable to the retailers.

Chip card technology allows multiple applications to reside on a card. A small applet on the card can permit off-line processing of low value payments, which can be performed at almost no

Paul Sutton is President and CEO of Kabira Technology. Before this, Sutton was VP of sales and marketing at Intellicorp, and has also held positions as VP of sales at Softlab, and MD of Boole & Babbage, a system management software company.

cost. These payments can then be aggregated to a larger payment for posting to a customer account. As well as chip technology, this approach can be applied to contact, contacless, and mobile environments. From a customer's perspective, electronic low value payments are handled quickly from an existing card, from a trusted entity, and are widely accepted due to the fees acceptable to the retailers.

GH. Contactless payment systems can be adopted using both conventional form factors such as cards and new ones like mobile phones and watches. MasterCard has a number of live trials around the world using this technology, some of which are progressing to full scale role out. For example, Garanti Bank in Turkey this year extended their contactless programme by introducing PayPass watches to their existing portfolio. Consumers are already using the technology in Istanbul.

FST. While the technology might exist to offer new kinds of contactless payments, what about the business case? How can banks establish a viable financial model to take low-value payments forward as a customer offer?

ND. This is, of course, the major issue. The banks have to avoid the mistake of embarking on expensive long-term projects. The business opportunity will be gone before they can implement. As I said before, the concept of low value payments processed off-line, aggregated to larger transactions and moved through the existing debit/credit networks as profitable transactions provides an answer. Many banks in Europe and North America have investigated this approach by considering the Cardis Micropayment Solution and have endorsed it. The cost of an additional applet on an EMV card, whether contact or contactless, is trivial, as is the personalisation cost. By aggregating off-line transactions into debit or credit transactions with a value close to the average of debit or credit today, the banks can grow the existing profitable business lines without having to increase their share of the card market. It is well known that cash is expensive to all participants, and that taking cash out of the market enhances the banks' business cases.

PS. If banks take advantage of their formidable advantages – their licences, franchises, new technology and work with mobile operators then they will provide a great service to this market and not only protect their existing business but also build themselves a significant and profitable high volume electronic payments business for the 21st century. Their profits will not come from the charge for processing the small high-volume transactions, but from efficiencies of not having to process such large volumes of cash.

Nick Parsons is Managing Director of Ingenico Northern Europe, part of the global Ingenico Group that facilitates over 100 million transactions per day across 90 countries. He has spent over 25 years in the IT sector.

PE. The first most obvious thing is to evaluate the opportunity strictly on its merits. Obviously, contactless payments are aimed at the high volume low transaction value end of the acquiring scale. For a bank to make money on low value transactions, it would require large volumes of transactions to counteract a lower interchange fee. Promoting this to large parts of its appropriate merchant estate would be the key to creating a viable business case.

Second, a bank offers services to its merchants so this can be viewed as another service. Services in turn are a differentiating factor for banks. They become unique selling points for banks and therefore promote competitiveness. Finally, contactless payments systems are an innovative payments tool to improve customer satisfaction. By taking all factors into account, the business case is made for its inclusion as a payment tool.

GH. Datamonitor, in a 2006 report, sized the contactless payments opportunity in the UK at US$58.7 billion. That represents a huge opportunity. All players will benefit from making purchases faster and more convenient than cash, from stronger relationships and the potential to use contactless as an acquisition tool. Once you appreciate the actual cost of cash the benefits of contactless are clearly identifiable.

NP. The technology will attract new cardholders, which mean increased revenue for financial organisations. New market opportunities will also be opened up by contactless. In 2005, more than 80 percent of transactions in Europe were in cash, making it by far today's most popular form of payment. This situation is partly due to the fact that many merchants, for example fast food restaurants and the unattended vending market, accept only cash payments. These cash-dominated markets are ideally suited to contactless technology and are key new market opportunities for financial organisations.

FST. Will the growth of contactless or mobile payments threaten to encroach on the traditional plastic card's position in the wallet? And what impact will this have on the industry?

NP. The plastic card will continue to be important and will be central to secure payments for the foreseeable future. A contactless card differs from existing cards by having a built in antenna which allows payments to be made without having to physically place the card in a terminal. To protect against fraud, contactless transactions will initially be limited to UK£10 or under. For all transactions over this amount a standard chip and PIN transaction would be required.

PE. I don't believe that the mobile payments and contactless products will threaten the traditional cards position for a number of reasons.

First, contactless payments are effectively a 'cash-replacer' in that it is targeted for the small payments amount segment.

Second, in relation to mobile payments I think this would only affect payment behaviours rather than payment tools. A customer must still present a card in the mobile environment the same way as he/she would in a fixed line or IP environment. The very reason for mobile payments is to enhance convenience and usability rather than replace existing payment tools.

PS. Possibly. As I mentioned before, the move away from cash and cheques will increase the size of the electronic payments market exponentially. However, if banks ignore the contactless and mobile market and leave it to mobile operators and specialist players, because they see no great profit, then they run the risk of allowing others to build competing payments engines that can then more cost effectively process the traditional plastic card transactions. The British motorcycle industry ignored the Japanese entry into small 50cc motorbikes in the 1960s. Their bikes were cheaper, more reliable and innovative, but they were treated with distain by British 'real' motorbike manufacturers. The rest, as they say, is history.

GH. Yes I think it will. Eventually, payments may come completely out of their wallet; whether it be on a watch, a phone, or house key, banks will be presented with a whole new area in which to differentiate themselves.

ND. As I noted earlier, disintermediation is a constant worry for the banks. Contactless cards should not encroach on the banks business as long as the banks are the issuers. Mobile is another matter. Banks are concerned that the telcos will enter the payment business through mobile phones. However, it will be difficult for new players to penetrate this market. One thing the banks have is the trust of their customers. The concept of aggregation can also be applied to mobile phones allowing the telecommunications companies to airtime usage, and the banks to continue to manage the payments. The banks and telcos can become partners.

Gavin Harding is a Product Manager within the MasterCard WorldWide, Chip Centre of Excellence. He joined MasterCard in 2006 after 19 years with the Royal Bank of Scotland, 17 within the RBS Cards Business.

FST. Cards are particularly useful for cross-border transactions. How is the implementation of SEPA going to affect the card infrastructure?

NP. The Single Euro Payments Area (SEPA) is going to create a new competitive environment for banks where there will be opportunities for growth but also increased threat of new entrants. We can expect things to start hotting up as we get closer to January 2008 when banks will start migrating customers over to the new payment instruments.

Multinational businesses and banks have the opportunity to consolidate their payments processing onto common platforms across the euro zone. They will benefit from substantial efficiencies by choosing among competing suppliers offering a range of solutions and operating across borders.

PS. SEPA is driving the market towards a consolidated and more cost effective infrastructure. Today most European card infrastructures exist at the national level. To handle cross-border transactions, another level of infrastructure routes all international authorisation requests to VISA or Mastercard. This introduced additional cost is passed through to end customers as an international transaction fee, and with SEPA, banks won't be allowed to charge this fee to customers.

So what does this mean? European card infrastructure will evolve significantly and major players such as the country-level switches could disappear. As evidence of this movement toward change, the ECB has published a recommendation for the European banks to collaborate in building a new European authorisation switch. Moreover, local ACH's are merging into Pan-European ACHs (PEACH).

ND. International networks for debit and credit card transactions, as well as emerging pan European scheme Euro Alliance are already widespread within the European Union. To introduce an aggregation-based low value payment system that rides on the back of this infrastructure will permit cross-border acceptance of low value payments throughout the euro zone. The introduction of SEPA will enhance this approach rather than detract from it. We at Cardis see this as a major opportunity and we are very active with a number of major financial institutions and influencers in this space.

GH. I'd anticipate that SEPA will increase cross-border transactions. Micropayments go to the heart of SEPA; ease of payments across borders and across acceptance locations – with harmony of experience.

PE. SEPA is an ambitious and worthy vehicle in achieving pan European Cross border harmony in the payments industry. It is however faced with some very tough challenges moving forward. The EU is the only major market without a unified debit card scheme. The stakeholders in Europe (ECB, EC and EPC) will have to devise a strategy that satisfies regulatory, commercial and marketability needs that is readily acceptable to all players. In a complex debit card market this is no easy task. ■