

# Chip off the old block

It is hard to believe that only a few years ago a signature was required when paying by card on the High Street. Duncan Jefferies looks at the successes of chip and PIN, and what the future holds for the technology

According to APACS, there's now around 140 million chip and PIN cards in the UK out of an overall 142 million bank cards in circulation. It is also estimated that 900,000 shop terminals, which is 98 per cent of all terminals, have been converted to chip and PIN.

The main issue to consider when discussing chip and PIN is its effect on fraud, and in that sense it has been a huge success with High Street fraud falling by £150 million in two years. Other benefits for retailers are obvious: shorter transaction times and a reduction in the cost of transaction processing.

One of the major worries for APACS before the introduction of chip and PIN was whether customers would adopt the new technology, but, as Sandra Quinn, director of corporate communications says, it would have been a totally different ball game if customers hadn't accepted it.

"Once we announced the 14 February deadline, most people were using it anyway. But it was amazing that even at that stage, we were still a bit worried that the day after we'd have lots of people refusing, but no, people just moved on," she adds.

Educating both the public and retailers was an important job for APACS prior to the roll-out of chip and PIN.

"What both the retail sector and the banking sector did do quite well was to reach all

those people who might not be able to use chip and PIN. Now, we didn't get everybody to understand exactly what that would mean, but we made the effort to talk to as many people as possible," says Quinn. "You've still got some people out there who, if they had the choice, would go back to signing tomorrow, but you're always going to have that."

The rollout of chip and PIN was slow building initially. By the end of 2004 most bank owned terminals were chip and PIN enabled, but it wasn't until 2005 that retailers came on board en-masse. Some of the larger names had been trialling it throughout 2004, and once it was rolled out to their entire estates, smaller retailers were quick to follow suit.

Since then, chip and PIN has even attracted some retailers who weren't prepared to accept cards previously, and with chip and PIN now near ubiquitous in the UK, those merchants who are yet to upgrade their EPOS systems risk sending a poor security message to their customers.

"The most universally positive thing is that consumers have taken to it very smoothly and are now demanding its use wherever they shop. This is a further driver to complete the migration to the technology, with consumers now saying 'why should I be shopping in an unsecured way?'" says Mark McMurtrie, marketing director at The Logic Group.

## Euro sceptic

Chip and PIN is yet to be rolled out completely across Europe, with different countries at different stages of implementation.

"A couple of countries, including France, have made significant progress with introducing it, however as a continent Europe is many years behind the UK as far as EMV adoption is concerned," says McMurtrie.

APACS is currently lobbying in Europe with the aim of getting the rest of the continent chip and PIN enabled.

"I think the position in Europe is still patchy, but there's quite a few European bodies collating stats on who's doing what," says Quinn. "And while there's a lot of cards and terminals in Italy for example, actually the number of cash machines that have been upgraded was running at something like one per cent, so inevitably they're suffering quite a lot of cash machine fraud."

There are no common standards in Europe, or a common platform, meaning that pan-European retailers cannot develop a single chip and PIN strategy.

"We look at what chip and PIN systems they've got in each individual country, and then you have to do re-accreditations and try and get each country to take on their own chip and PIN solution," says Steve McGee, sales manager at K3. "The European side has proven very difficult

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because there isn't a common standard across all of Europe," he adds.

Many of the payment technologies being discussed at the moment would not be possible were it not for the successful chip and PIN rollout. Contactless payments, for example, builds on the installed chip and PIN base.

There is also the possibility of using a home chip and PIN reader for online banking and, potentially, online shopping in the future, although McGee has doubts as to whether this would prove successful.

"The cost is going to prohibit them unless they are a true multi-channel retailer and the majority of their sales efforts are through the web. I think where you have a retailer who is predominately web-based then yes, they may offer their regular customers that facility," he says.

According to McGee, retailers also need to be aware of the need to keep their chip and PIN systems up to date.

"It's not a 'done once and forget forever' scenario, it's all part of a regular review. It would be fair to say most large UK retailers are now needing to refresh their chip and PIN systems to bring them in line with the latest security requirements and standards," says The Logic Group's McMurtrie.

There has been a low failure rate in terms of the hardware, although the response from the manufacturers of the hardware when things have gone wrong has sometimes been slow, something K3's McGee puts down to production demands. Also, issues still remain regarding the length of time it takes to gain accreditation.

"We've done two recently in very quick time - six weeks for the full roll-out and implementation - but we've had others that have taken three months or longer to do purely because of the accreditation with the banks," says McGee.

However, according to The Logic Group's McMurtrie, steps are now being taken to rectify this.

"There are now solutions on the market, including a service from The Logic Group called smart TPS, which have been specifically designed for the needs of the mid-tier business and remove some of the costs of certification. They simplify the development integration required between the payment and EPOS systems, and are provided as a service based offering, which means retailers are not reliant on having specialist skills or dedicated IT resources," he says.

Chip and PIN terminals can potentially expose a customer's PIN to criminals when they are entering it, something Debbie Mitchell, marketing manager for VeriFone EMEA, believes can be solved through placing privacy shields around the reader.

"Retailers can also ensure that payment terminals are

strategically placed to minimise the risk of observation, and offer customers the ability to actually move the device themselves through the use of pivot stands and handheld PIN entry devices," she adds.

Of course, all payments devices should also comply with the PCI:DSS standard when it eventually comes into force. As Mitchell says: "Systems that meet the latest PCI:PED (PIN entry device) security requirements offer increased reassurance by preventing unauthorised software applications from running on the PIN pad or terminal, and providing tamper prevention and detection, meaning that the device becomes inoperable in the event of tampering."

Overall, chip and PIN has proved to be a great success. As Apac's Quinn says: "Actually we've brought about a change of behaviour...I would hate to think that anybody thinks about it too often, and that's the key is that most people don't even think about it."

However, it will surely be many years until every country is compliant with EMV standards, with the US expected to be one of the last converts. And as the Logic Group's McMurtrie points out: "While the biggest card market in the world uses magstripe technology, then card fraud losses will continue to be significant."