

The Chips are Falling into Place

Credit card skimming and competitive pressures are the two main factors forcing Asian banks to adopt EMV-compliant smartcards

BY STEPHEN WILSON



This column is a report from the frontlines in Asia, on Net banking security, and the different drivers and solutions being seen across the region.

Banking fraud statistics and characteristics differ markedly from country to country, as does the penetration of banking technology and Internet usage in general. But the ability of many Asian organisations to move quickly on new technologies provides a rich array of case studies, which can inform Australian banks as they refine their security strategies for dealing with identity fraud.

Earlier this year I attended the Asia PKI Forum conference in Tokyo. The increasing prevalence of embedded public key certificate and digital signature functions was a key theme emerging from the conference, especially in new banking technologies.

Financial institutions in Asia foresee benefits coming not only from reduced losses from fraud, but from a wide range of imaginative value-added applications to differentiate their banking products.

ATM card fraud

Card fraud by skimming and cloning is increasing across the region. Organised crime gangs have sophisticated "carding" operations.

In a famous case in Malaysia, it was found that criminals had tapped the telephone lines out of a major shopping mall, enabling them to eavesdrop on credit card authorisations and thus quickly capture the magnetic stripe data for many thousands of customers.

The response by regulators in some jurisdictions has been to set relatively aggressive migration targets for chip cards, which are essentially immune from counterfeiting. Most notably, Malaysia, Taiwan and South Korea have already imposed deadlines in or before 2005. In Taiwan, the regulator initially sought a six month transition period from magnetic stripe to chip, although the banks managed to negotiate an extension to 12 months – still very short by our standards. Almost all Taiwanese bank customers now carry chip cards, although notably few of these are fully EMV compliant, since their immediate priority was simply to reduce skimming.

EMV progress

Market	EMV cards	EMV terminals	Other smartcards
Japan	20 million	39,000 (out of 1.9 million POS total)	● Around 1 million local gov't residency cards
Taiwan	2 million	80,000	● 22 million health cards ● 800,000 gov't PKI cards ● All other bankcards now of lower spec chip card design
Korea	2 million	No data	● Several citizen card schemes

EMV migration across Asia

Naturally, Asian banks face the same sorts of business issues as everyone else when it comes to the transition to chip credit cards. But it is interesting to see how the different drivers, infrastructure issues and rates of progress vary from place to place. Many organisations are biting the bullet, regardless of their local conditions, because their international operations make it unattractive to maintain old and new security technologies in parallel.

In Asia, EMV and national payments organisations recognise two tiers in the market. Japan, South Korea, Malaysia and Taiwan are the upper tier; Thailand, Singapore, Hong Kong and apparently Australia too are the lower tier.

With smartcard ticketing and advanced telephone services being further advanced in Asia than in other parts of the world, there is strong interest in bank-issued cards being multi-application.

Combating card fraud tends to make the business case for EMV migration in Japan and Taiwan. On the other hand, in Korea card fraud is relatively low, and the banks' interest in smartcards is driven by competitive product differentiation, where loyalty, calling card and/or ticketing options are available on multi-application chip platforms.

Interestingly, Korea happens also to be perhaps the strongest adopter in the world of digital certificates for Internet banking. It is possible that banks there see additional strategic value in deploying their certificates on smartcards in the future, once readers have penetrated into the home banking environment.

In Malaysia, card fraud remains manageable for domestic bank

customers but for foreign issued credit cards, fraud is rampant. Therefore it is expected that Malaysia will ironically be the first Asian country to complete EMV migration. What this means for visitors carrying magnetic stripe cards into the country is as yet unclear. My personal view is that international banks will probably soon experience consumer demand (or else see a market opportunity) for chip-based products for their mobile customers, both business travellers and tourists, to enable them greater freedom when overseas.

The table above summarises EMV progress in most of the tier one markets.

A lesson in commoditisation

Finally, an anecdote that underlines how smartcard technologies have fast becoming commoditised in other parts of the world. At the Asia PKI Forum conference I chatted with a delegate from Taipei who showed me four smartcards in his wallet – his national health insurance card, his personal digital certificate card for accessing government services, and two bank issued ATM cards. I asked him about smartcard readers, and whether the availability of readers built into computers was still a problem. He replied that it wasn't, for in Taipei, if you need a reader, you can buy one at the Seven-Eleven, for ten dollars.

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