Cards New Zealand 99
Meeting the Business Case Parameters

Can the business case work?

or

Near death experiences

and smart card business cases

Graeme Freedman outlines current issues in smartcard business case development.

I pose the questions:

- Why would the worlds largest payment scheme operators, like lemmings, regularly launch into smartcard trials that never proceed, or straight out fail?
- Why would government agencies build grander and grander plans for smartcard implementations, and never actually implement anything?
- Why would virtually every bank announce a forward strategic direction based on smartcards and electronic purse, then only implement their staff canteen as their strategic trial?
- Why would a loyalty scheme operator put enormous marketing dollars into a scheme, only to find out they did not own anything and it could not be technically delivered?
- Why would…Why would…Why would?

Smartcards are a honey pot to organisations, big & small that swarm towards them with a certain fatal attraction.

Marketeers and bureaucrats can't resist the concept of controlling large populations of people with small, convenient, low cost computers that can have their brand printed on them. This concept seems to generate an enormous amount of vision and excitement, but in reality, only the most focussed organisations have delivered real results.

A straw poll of the leading smartcard consultants in this region tells me that only one in seven of their clients have well formed or valid business cases. (And these are the consultants that I know wouldn't mislead their clients!)

In general most projects seem to be full of vision and devoid of any real pragmatism. They are often based on an infatuation with some new and wonderful feature of a particular smartcard technology that has only just been released. Unfortunately this new feature typically guarantees that both the costs and system delivery times will be multiplied by four!

It is worth spending some time investigating the various business case issues that we commonly see, and try to work out how to save time and money by avoiding the mistakes of others.

Somewhat tongue on cheek, I put these issues under a number of headings:

1. Infrastructure Impasse

Many smartcard implementations require large terminal or transaction management infrastructures before there is even the remotest chance of success of the entire scheme.

The infrastructure is often expected to be built magically by some visionary race of merchants. These merchants are clearly just waiting to invest huge amounts of money to support the scheme operator's business case (which involves, of course, taking more money from the merchant for their right to be involved in paying for the visionary infrastructure). Naturally the hard-nosed merchants ask "what's in it for me?" and when the marketing boffins (or is it buffoons) give them some mumbo-jumbo about the meaning of life being linked to electronic purse technology, they apply the appropriate counter argument and send the buffoon limping off!

It is fairly clear that no single organisation, or even Government, is going to invest to the level that will resolve this issue. It is also clear that if they did, they won't share their expensive infrastructure with any other player.

The answer to this issue is becoming clear from the successes and failures in the market. We are seeing smaller closed schemes with pragmatic delivery of real business benefits surviving, whilst the large scale, electronic purse only schemes are failing. What we will most probably see is these closed schemes gradually become larger, and larger. Eventually commercial arrangements between closed scheme operators will drive open systems technical interoperability. Some examples of exactly this model already exist in the Russian (CIS) building societies.

2. Standards Slowdown

We hear from Governments and others throughout the world about their continual concern about "multiple railway gauges" and their reluctance to move forward until standards shake out. Well the reality is that even when and if standards shake out, the Government agencies will almost certainly prevent interoperability, simply to guarantee privacy to their cardholder's. Commercial organisations will also prevent interoperability, except for other non-competitive organisations with which they have commercial arrangements. Others will be excluded!

At the end of the day the owner of the keys for the card, owns the card, and can determine the commercial conditions under which interoperability is possible, standards have little to do with this.

Because of these misunderstandings we are seeing some of the best business cases shelved in the mistaken belief that technical standards will fix the problem. In reality the bureaucrats need to focus on the commercial standards and requirements, and then back fit the appropriate technology. Some pragmatism in this area could produce major savings for Government in the short term, and result in some of the best business cases actually being implemented.

3. Merchant Morose

Many potential scheme operators forget to check their pricing for merchant terminals, we see payment scheme owners claiming that the terminals will be “US$400-US$500”. This is probably close to the price the banks pay for EFTPOS devices in volume, but not the price that they need to work to for smartcard versions of the same device.
Everyone forgets that terminal manufacturers typically provide EFTPOS terminal software effectively for free, and that this is only possible because of the huge volume of EFTPOS terminal purchases, and the competition this has generated.

When a merchant wishes to purchase a smartcard terminal they need to pay for both the hardware, plus the software (typically the same cost as the hardware) plus the SAM (Security Access Module smartcard chip) for each scheme (typically US$60 each). They may also require additional memory. Some schemes require up to 3 SAM chips for a single scheme.
In addition to this, the merchants strongly desire a single EFTPOS and smartcard device. To achieve this requires a bank to agree to cross certify EFTPOS plus the smartcard scheme at enormous additional cost and with the introduction of 6-12 month delays. Depending on the scheme owner, It is also possible that a commercial agreement to access EFTPOS cannot be reached with a bank because of conflict with typical banking strategy!
The end result is that the terminal cost can be anything from 2-3 times the cost of exactly same device when used for EFTPOS.
Most successful rollouts have worked around these problems by using lower cost, stand-alone devices, and avoiding the banking networks entirely.

4. Cardholder Cringe

Despite the great marketing vision of all players, and the strong brand identification of the payment scheme operators, your typical cardholder or consumer will not use a smartcard unless they have a compelling reason to do so. They certainly will not put hard earned cash on a smartcard if they can conclude a transaction with cash. This has been clearly emphasised by the problems with the New York trial where there was no compelling business proposition to use the cards other than as an alternative to cash.

This consumer behaviour is very easily understood when you consider how we operate with old-fashioned cash.

> When you go to purchase a hamburger, do you purchase it because you have cash in your pocket?
> Or do you purchase it because you are hungry?
> The answer of course is that you are hungry.
> The fact that there is cash in your pocket is secondary, and it is only used in order to conclude the transaction, the transaction is initiated by a more primitive need, hunger.
> The same applies to smartcards as a replacement for cash; they are simply an alternative mechanism to conclude the transaction. If they offer no benefit over cash to a consumer, they will not use them!

Any business case for electronic purse must provide the cardholder or consumer with a compelling business reason to conclude their transactions with the electronic purse, rather than cash.

5. Government Goliathan

Governments have a habit of forming committees. Government committees can become very large, I recently heard of a smartcard committee meeting in government where 70 people turned up!

Committees like to achieve unanimity, so everyone gets to put their bit in. The list of systems requirements for one Government initiative I know of would probably take a couple of years to fully document into a business requirement specification!

Governments, with a couple of totalitarian exceptions, seem to want to put every possible feature, new technology, and whatever whiz-bang thing they can add into their requirements.

The end result of all of this is that hundreds of vendors spend massive amounts of energy dealing with Government only to find that there is no real business case possible because none of the committees were ever focused on delivering anything!

The worst result is that despite the claims of most agencies that they are concerned to achieve “industry development” the end result for most small companies dealing with Government is a near death experience! (I might add that dealing with some of the large scheme operators is a potential near death experience for most small companies.)

In reality all we need of Governments is for them to understand their own business requirements, work on real business cases, and focus on specific areas where Government can achieve business benefits, cost savings, etc. These should not become “All of Government Initiatives” as this virtually guarantees failure when they go down the slippery slide of unanimity. These initiatives then need the advice of industry to solve the technology problems, with a large dose of pragmatism, and with delivery of bite-sized chunks.

6. Marketing Mayhem or Co-operative Coercion

There is a myth in the market that somehow smartcards will allow all kinds of marketing companies to put their loyalty schemes on everyone else's card, and that they can magically piggy-back each other and the world will be rosy and beautiful.

I am not sure who started this myth, but I am sure I know why. The major payment scheme operators have not been able to convince banks to roll out their schemes, so they need a valid business case, and loyalty is the best one they have, so they are busy convincing every potential loyalty scheme operator to use their card.

Now, this is a good and noble objective, but the buyer needs to beware. Loyalty operators need to realise that whoever owns the keys for a smartcard, controls the applications that operate on it. If you don't own the keys, and one of the applications on the card is your loyalty scheme, you need to be sure that you can access the card and have control of your own destiny. Audibility is also a big issue, particularly if you have no control of the application that generates loyalty points on the card.

Some simple rules

It is important to finish with a clear way forward, so the following are the attributes I like to see in any business case, if you follow them you will have a better than average chance of avoiding the problems above, and being successful in the current market environment.

- Look for a clear closed cardholder community with significant family resemblance between the requirements of all members of the community.
- Ensure there is a clear and simple business proposition for the cardholder that gives them real benefits for using the card.
- Look for a clear closed merchant group or service provider population.
- Ensure there is a simple business proposition for the merchants or service providers that give them a real business benefit for accepting the card.
- Check that the business case is not based on electronic cash on its own. It must provide business benefits significantly greater than could be delivered by electronic cash.
- If it is used at all, the electronic cash should be simply the mechanism for completing the other business transaction/s.

- You should look to deliver as many **relevant** applications to the cardholder's on each card as possible, this means they will value the card more, and the costs can be spread over more applications.
- Plan to build these small closed schemes gradually into larger schemes as commercial interoperability makes sense.

Graeme Freedman is Business Development Manager for SmartCity Smartcard systems at Fujitsu Australia Limited.