

Mick Davies

Chairman, LASSeO Ltd

LASSeO: helping to deliver electronic services for the public sector using the full potential of smartmedia

The name LASSeO was an acronym that arose from Local Authority Smartcard Standards e-Organisation – a little contrived but then such names usually are. However, like ITSO, these days LASSeO is just its name: Standing for a reputation, a set of attitudes, and a keen interest in the standardised use of smart media in the public sector. From time-to-time individuals have tried to make the name rhyme with Mondeo but we have firmly resisted this. LASSeO is like the famous screen dog followed by an exclamation of surprise!

How LASSeO works with the transport industry

Anyway, we have been around for over nine years and our organisation is primarily driven by a desire to improve the prospects of the public sector making smart use of smart media. It is a not-for-profit organisation with a mission to make it possible for services to peacefully co-exist, or even to co-operate with each other, on smartcards and other smart media. Getting the public sector as a whole to agree to anything is an uphill struggle but we have had our moments!

The UK card industry is well represented in LASSeO circles; indeed a number of smart media practitioners are jointly responsible for developing all of our specifications without any call on the public purse.

Standards and specs

Now there are more standards around than you can shake a stick at and the wise reader will not be surprised to find that this is not conducive to

standardised working. What is needed is some body or other to make sense of sets of standards. That body must have the trust of the community and mechanisms to tell would-be users what should be used and how. LASSeO fills this role. We have developed specifications, based on standards, which help others to use the media in sensible ways. We have specifications for MiFare, DESFire, and Java processor cards that allow for central and local government services to live alongside transport and other third party services on each of these platforms. We are presently aiming to extend this range by working on an ISO 7816 contact microprocessor card specification. These specifications are available, free of charge, from the LASSeO website¹.

Dealing with transport

In dealing with transport, LASSeO has primarily been involved with ITSO and the Department for Transport. Indeed we go back years and have been rubbing alongside ITSO for longer than

I care to remember. In our early days, the DfT were an ever present member of our regular meetings and often made a significant contribution to our thinking. All of our specs have been developed in consultation with the ITSO fraternity and, apart from the occasional spat, we both remain committed to getting the most out of smartcards by working together. Consequently, the ITSO/LASSeO Mifare card specification was an absolute must for anyone issuing transport cards...until the infamous Mifare hack that is. ITSO's decision to move very rapidly away from this platform put a bit of a strain on our relationship, but like many a marriage we both worked at it and got through it.

Some authorities (and some of them pretty big ones) are still operating under an ITSO derogation that allows them to continue to use this less favoured technology but most are now well into using the agreed DESFire spec. Now, given the recent DESFire hack we seem set to cover similar ground again. It would seem that enforcing a move to DESFire EV1 will solve the problem and this shouldn't be anywhere near as traumatic.

LASSeO tends to sit under the hood

LASSeO specifications are used on almost all of the 11 million English National Concessionary Travel Scheme (ENCTS) cards and all of the

country's main card producers encode to at least one of our specifications.

We are also starting to see adoption of the LASSeO DESFire spec in the higher education sector and this brings a rekindling of interest in co-residing with travel functions. The attractiveness of campus cards in general and student cards in particular is greatly enhanced if they also carry the ability to travel and can be used to make payments.

In these enlightened days, it is not too much of a stretch to envisage TFL's Oyster application on a campus card which has been encoded to the LASSeO specification.

There are some things that we need to bring to the fore

One of our main ambitions is to provide a consistent response for the man on the Clapham Omnibus, (I'm not sure which operator runs this service but its passengers are clearly important people).

We know that any difficulty experienced by our card holders creates a significant disincentive to card use. The traveller/customer must have confidence that their card will work, will work in the way expected and will give the desired result. So we find ourselves examining issues that may be of relevance to the practical use of a variety of cards across a range of readers in a number of environments and seeing if we can make sensible suggestions for improving things.

One recent case was where we were asked by one of our members about the maximum and optimum reading distance when a card is presented to a reader – in this case on a bus. We may be a sad bunch, but this sort of thing really interests us. We are also well enough connected to get answers from across the industry. Initially, we were surprised that interoperable schemes, like ITSO for example, do not have a testing regime that covers this. On further investigation and after expanding our understanding of the issues involved we can see why! We quickly discovered that because there is not a formal testing regime outside of ISO 14443 testing (which manufacturers manage themselves), schemes can acquire cards and readers over a period of time that do not perform in exactly the same way. Believe it or not, it is not uncommon for such parties to disagree about where the responsibility for the problem lies. So testing how well cards read at various distances on a variety of readers on buses with voltage spikes

remains a bit of a shady area. Now, if you consider a smartcard issued by one player for use in a particular area, which ends up being used on a bus somewhere else, ask yourself: "How good is the customer experience?" Well, the answer is that it can be pretty good, but it doesn't necessarily have to be! So is there a golden rule that will deliver a reliable result? Well, management of this issue has been described as a black art; there are many variables and consistency is hard to get. However, if the customer physically 'taps' the card on a reader rather than just waving it in the direction of the reader, there is a much better chance of it reading properly. All pretty simple stuff and it does give rise to some pretty simple advice – use a slogan like 'Slap or tap and go' because this kind of message helps to set customer behaviour which can in turn have a beneficial effect on the user.

At LASSeO we can't do much about this kind of issue apart from shedding a little light on the topic and hopefully making players aware that there is an issue.

What about using public terminal outlets?

Take another case in point of a customer using an English National Concessionary Travel card. Now the degree of difficulty experienced when using technology is particularly high in older persons and those with disabilities. So here we have a cohort that is much more likely to need aids and adaptations than the general population. If we now consider a pretty standard ticketing machine which may be a touch screen, think about how good it would be if the customer could use settings, already encoded on their card to change the way the screen presents itself to them. If the system reverted to its default settings when the card was removed, everyone would be happy. The customer would have been able to see what was required of them, maybe in a language that suited them, in a larger font using colours that they found easy to read, etc. The operator would have done something to please the customer without any real cost and they wouldn't be causing delays by standing there looking for reading glasses, etc. If we extend this to access gates and turnstiles it is perfectly possible to encode a request for the gate to be kept open for a longer time and maybe a guide dog and its owner could get through the gate without outside intervention!

I guess it comes as no surprise to hear

that such a product exists. It is based on the European standard EN1332-4 and is called SNAPI and its role in life is to provide a standard way of storing user preferences on a LASSeO format card for use in a number of environments.

It can encode fonts, colours, requests for turnstiles etc to be open longer, a display message for someone at a booking-in desk (maybe informing the operator that the person is hard of hearing and needs special attention to be paid to speaking loudly, clearly etc.), even provide information in a second language or delivering verbal output. Any of these functions could make a significant difference to a traveller seeking tickets or information and make the process slicker for all concerned.

LASSeO has taken this to the DfT who expressed support but nothing more. A small project was funded via the government Technology Strategy Board (TSB) and LASSeO is now looking for ways to roll this out. Clearly it would be good to find that the transport industry was prepared to jump on our bandwagon.

Our attention is now moving towards how mobile technologies are being adopted in the traditional card space but our mission remains pretty much the same – to help the public sector to make sensible decisions about adopting smart technologies and to gain some advantage from them. Transport is a key factor in this and provided we can continue to find strong ways of holding many functions on a single device, we can see a future where all sorts of services may be easily accessed by the widest set of customers for the benefit of all.

Coming full circle, I would remind you that LASSeO is a not-for-profit organisation and our meetings are open to all active players in this space. We are always looking for new blood to help us progress our aims and are happy to get input from any interested parties.

Reference

1. www.lasseo.org.uk



Mick Davies has been in ICT for over 38 years and, for the past nine, has concentrated on smartcards and associated issues including e-inclusion, e-money, and transport from a local authority perspective. Mick has been Chairman of LASSeO since its inception and champions local government interests in smartcards.