

Going ITSO smart-live – lessons from the past 12 months and the way forward

National Concessionary Fares - Transport Times Conference

Jeremy Meal | 29 April 2009



Agenda

MVA Consultancy and our Smart Card experience

- Track Record (Smart Card Projects and Clients)
- Typical Project Contents

ITSO Progress Highlights

- NoWcard – illustrates the ITSO incremental steps forward
- Other schemes

ITSO Smart Cards

- Configurability
- Concession Entitlements, STR, Period Passes, Carnets
- The Card types – normal cards (and additional 'low-cost' for commercial tickets) and Interoperability – the 'Martini' principle

Trends and the Future

- Example trends from ITSO schemes
- Opportunities and food for thought
- DfT Concessions Consultation and Smart Card Aspirations

MVA Consultancy – Smart Card Track Record

Design/Implementation – Concessions, Fares & Ticketing etc

- DfT/ITSO ENCTS - CPICC/OID structure & ITSO Technical Notes
- Singapore, Melbourne

Concessions (Reimbursement/Payments) Advice

- PTEs, Scotland Regional, Scotland National, Wales, Operators

Specifications/Migrations

- ITSO, London Routemap, CEN – IOPTA (EN1545 & EN15320)

Implementation Advice - ITSO Projects (and Legacy)

- NoWcard, Yorcard, Centro, GMPTE, Nexus, Scotland, Wales, DfT ENCTS, Cambridge, TfL, (Northern Ireland, Republic of Ireland)

Rail Advice – ATOC, Chiltern, First TPE, First ScotRail

Conferences – Regular updates on our *implementation* experience

MVA Consultancy - Typical Project Contents

Concessions Advice

- reimbursement & delivery via smart

Fares & Ticketing Advice

- Fares policy and structures (ie not just smart cards)



"Beginning to End" Smart Projects

- Policy setting
- Business case
- Funding
- Governance
- Specification
- Procurement
- Implementation
- Testing
- Critical friend

Other Activities

- Technical specifications
- Testing – cards, ETM software, Card POSTs
- Data – its importance and analysis from first principles

ITSO Progress Highlights

MVA Focus

- Business Case (criteria and for who?)
- First principles of ticketing
- Transition issues to smart cards
- Delivering schemes on the ground
- Configurability of products
BUT Glass half-full, not half-empty
(and a sense of humour!)



NoWcard Pilots/Pioneering ITSO

- 2004 Blazefield – two card types in 2 overlapping local authority schemes (NoWcard/GMPTE concession rules)
- 2006 Blackpool smart live
- 2007 Rossendale smart live with configuration editor (Editor used for DfT ENCTS card tests)
- 2008 ENCTS cards and STR tests
- 2008 NFC ITSO phone trial
- 2008 Blackpool ENCTS smart live
- 2009 ITSO Fully-certified [by June]

Currently live (MVA assisted)

- NoWcard 1,700 buses smart live
- Scotland 3,000 buses smart live
- Wales – South Wales small operators [IBT, Harris, SEWTA] 100+ buses live
- GMPTE – Arriva Bolton
- Others during 2009 (eg Centro)

Getting the most out of ITSO – a key issues

Configurability – linking business rules to ITSO card elements

Are we seeking to deliver concession/commercial schemes.....?

..... or a configurable 'smart card platform'?

- Configuration Editor – smart product set-up in the hands of the user
- Sale/Usage acceptance rules linked to the ITSO-secure enablement of products – eg price, ticket-class, local validity (time & geography)
- Supports operational variations – ticket/no-ticket, auto-transact or driver intervention for keying alighting stage to collect fare forgone [NB data-quality trade-offs versus operational issues (boarding times)]
- Parkeon (Wayfarer) as ETM suppliers have led the field with their 'Product Editor', trialled with Conditionally Certified Software
- MVA working with other ETM etc suppliers testing similar Configuration Tool software eg Almex, ERG, S&B

If smart isn't as easy to set up as paper ticketing, operators won't go smart!

SO that's the 'technical'!

BUT what do customers (passengers or other stakeholders) want?

AND what makes business sense?

Example ITSO Smart Card Products

Interoperability

- 'Martini' principle (anytime, anywhere, any place) – ITSO's best kept secret!!

Concessions

- CMD1 MIFARE® 1k (pre-ENCTS, some ENCTS), CMD2 (Aberdeen, Bolton), CMD3 MIFARE® 4k (ENCTS) – for existing rolled out schemes
- CMD7 MIFARE® DESfire works, CMD8 Calypso – DfT ENCTS tests

Stored Travel Rights

- ITSO 'stored value' on CMD3
- ITSO Specification being updated to support longer period 'fares capping' [week, month etc] – now in Technical Committee Review Stage

Period Passes and Carnets – rudimentary products all tested/working

- Travelcard-type period tickets
- Carnets or multi-ride tickets
- MIFARE® Ultralite and Innovision Jewel – small memory model or low-cost cards
- New products – carnet of day tickets, 'coupon-denominated' carnets

Interoperability – ITSO ‘Martini’ principle!

Smart card benefits of interoperability

- examples of shared infrastructure reducing costs
- Seamless ticketing – e.g. addition of a peak entitlement to an existing off-peak concessionary card
- Common and extendable on-bus configuration in the hands of the bus operator
- Reserved for future use – e.g. National STR scheme and the remaining card space still available for use
- Card potentially partitioned for transport and non-transport use (eg ENCTS 4k cards split 2k/2k - DfT's recommendation)



New products – ITSO Stored travel rights

A transport stored-value payment card

- Prototyped pre-ITSO by Cheshire CC
- Trialled and due to go live in NoWcard in Autumn/Winter 2009
- Allows local authorities to offer a joined-up inter-available card, but Operators retain commercial freedom to control and set fares
- Capping, as in Oyster, to follow??
- Shows how STR could be added to a concession when not valid for peak fare payment
- Top-up and usage on bus
- Auto-top up after web payment probably to be trialled next
- Needs FSA approval if interoperable [rather than a closed scheme like TfL Oyster]



New Products – ITSO Period Pass

3 forms of period pass for different combinations of days e.g. 1, 3, 7, 28 or more:

- on a re-usable card, which can be topped up with added days
- for a single entity use on a cheaper low-cost card [e.g. for tourists; ie NO top-up of days]
- as above, but as a 'carnet of stored passes' – e.g. 3 days from 5, or 5 from 7 for tourists or shift workers and occasional travellers



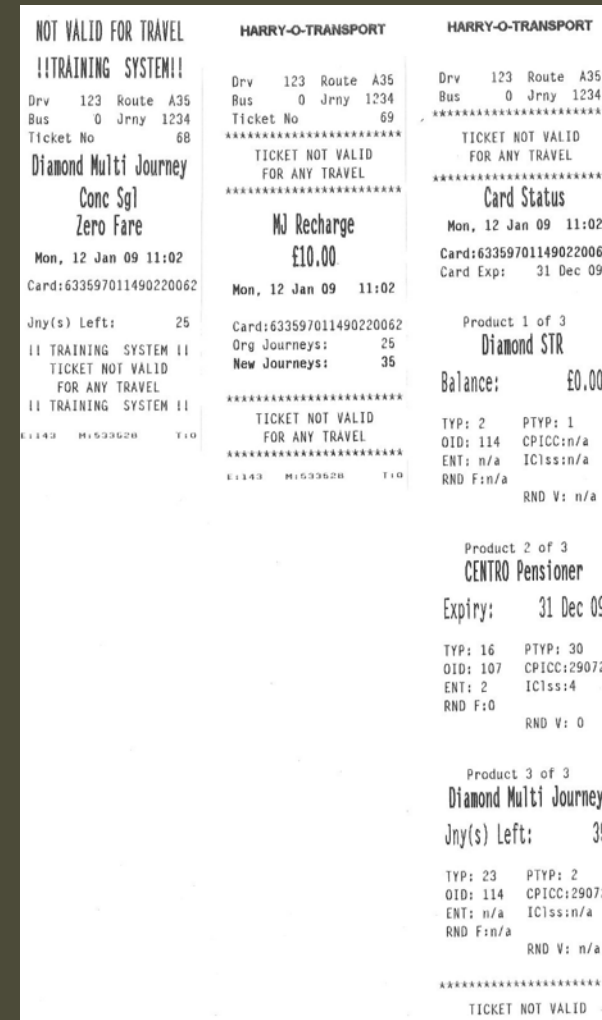
New Products – ITSO Carnets

3 Forms of carnet tickets for ride-based journeys

- On a re-usable card, which can be topped up with added journeys of a prescribed area-validity or journey-length
- On a single entity use on a cheaper low-cost card [e.g. for tourists]
- As above, but as a carnet denominated in 'coupons', which allows a single carnet to be used for journeys of variable length

Lesson from history: -

- Bus Commercial carnets withdrawn nationally in 1986 due to fraud [re-use of stamped/validated tickets]
- *smart carnets overcome these issues*



Example trends from ITSO schemes

Local Authority Partnerships and National ITSO procurements

- NoWcard – probably the only way Cumbria and the Lancashire Unitaries could engage with ITSO (though Lancashire CC may have been big enough on their own) - £7.5m capital and formal partnership since 2002
- WAG (SEWTA, TAITH, TraCC, SWWITCH) – Councils responsible for reimbursement and ETM equipment, WAG for AMS HOPS
- Yorcard – Metro and SYPTE c£8m pilot including rail and check-in/out smart cards
- Northamptonshire/Cambridgeshire – Northants umbrella procurement had regional HOPS clause, being used for Cambridge scheme
- Scotland – 32 council/regional concession schemes made national allowing single AMS-HOPS procurement

Bus Operators

- Big transport groups may procure own bus AMS-HOPS on back of rail commitments – but ITSO design works in data terms irrespective of data-routing via different HOPS; whether for ENCTS or on a product-owner basis
- AMS-HOPS (or even smart cards?) unaffordable for small operators – what is local authority role in assisting within level playing field? – eg managed Service

Rail – early days of contained scheme roll-outs, moving to interoperability

Trend is for cost-sharing synergies and partnerships

Opportunities – ideas & food for thought

ITSO Back Office – “AMS-HOPS and Payment Systems”

- Order of magnitude for a viable scheme size?
- What is the business case value of those ITSO transactions
 - Reimbursement clarity, commercial pass revenue share and/or STR management and assurance for the FSA (vis NoWcard and Cheshire have FSA SEMIC licences)
 - Security – transactions only from a valid card because authenticated ‘being ITSO’
 - ‘Management’ data – concessions, contracts, other statistical purposes

eg Partnerships - ITSO Back Office or wider sharing of infrastructure

Cards – multiple products (and remember the ‘Martini’ principle)

- Other concessions – scholars etc?
- Other commercial ticketing products – inter-operator/multi-modal, operator-own
- Other Council services?

eg Joined up business cases within local authorities and between partners

DfT Concessions Consultation - 28 April 2009

Smart Aspirations!

- Para 1.9 - In particular the Government is keen to encourage the faster roll-out of ITSO smart ticketing infrastructure amongst operators and local authorities and actual [concessionary scheme policy] changes will be consistent with this aspiration
- Para 6.9 – Many TCAs may be too small for it to be cost effective for them to develop a smart card system just for their own area, and it is likely that they will be forced to join forces with neighbouring authorities to develop a smartcard scheme. As an example, the NoWcard scheme available in the North West is a joint venture between two county councils, eighteen district councils and two unitary authorities

<http://www.dft.gov.uk/pgr/regional/buses/concessionary/informationlocalauthorities/concesstravel/>

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