

The 'higher plane' for public transport in the UK

Author: Peter Tomlinson, Iosis Associates, Bristol UK

Date: 19/4/16

Filename: The higher plane 160402.docx

This is the 8th paper in the 'Almost Always Connected' Series.

The entire series is available at www.iosis.co.uk.

This paper (like the 7th paper 'Hold very tight please') was originally drafted before ITSO Ltd's Chairman received by email the 31st March letter from Ms Jenni Borg of Dept for Transport (DfT). That letter confirmed DfT's complete withdrawal from active development and support of smart ticketing methods for UK surface and sub-surface public transport – henceforth the market, in cooperation with local government, will provide. The letter also announced the immediate disbanding of the DfT smart ticketing team and the transfer of residual technical support to the government's Chief Scientific Officer (CSO) team. The original draft of this paper was in fact promoting just that transfer of responsibility to market participants, but with a new and organised challenge rather than a simple disengagement by the existing dominant force.

The 'higher plane' in the title is one where ticketing and journey management for surface and sub-surface public transport in the UK is designed and further developed by the market participants *in order to facilitate multi-modal through ticketing and journey management*.

Ms Borg left DfT on that same date of 31st March. One person from DfT moved to the CSO's office to provide residual support for the technology. That person will also continue government's involvement in the Transport Card Forum operated by Smartex Ltd. Not known to the author is whether DfT will continue to have a seat on the Board of ITSO Ltd.

At the start of this year it was clear that DfT was moving in the direction of disengagement, but the complete and sudden withdrawal confirmed at end March was rather more than the author expected. The present text of this paper therefore reflects the changes at DfT, a Whitehall department that now relates rather less to the 'public transport industry' than hitherto.

Following the sensing of imminent disengagement by DfT, a very short presentation to the March 2016 Transport Card Forum was made by the author. That, together with a paper prepared at about the same time for ITSO Ltd's Supplier Sector Directors and ITSO's CEO, proposed moving the whole concept of public transport ticketing and journey management to a 'higher plane' but at the time without details. Behind that was a thought very like the one that is buried in the new DfT policy: public and private sector working together, *with private sector in the lead in matters of implementation and operation*. The Transport Card Forum material (a single slide) is reproduced as the Annex to this paper, and an extended version is available from the author.

Before the concept is explored further, the boundary of that 'higher plane' needs to be made visible. It is initially proposed that it encircles the vast majority of current surface and sub-surface public transport in England. Again initially, at the functional level it includes but is not limited to:

stage carriage bus and tram services paid for by the passenger,

entitlement to travel card schemes such as ENCTS,
voucher schemes such as PlusBus, and
UK national heavy rail services.

Further, the 'higher plane' is expected to have some impact on Transport for London (TfL).

Of course, public transport in Scotland and Wales may opt to be included, and so may offshore islands if operators and regulators in those jurisdictions desire to benefit from the methods and support services operating at the higher plane.

Importantly: participation and compliance is intended to be voluntary, just as implementing ITSO methods for paying passengers today is voluntary. However, it is open to government to mandate participation by way of, for example, mandating compliance in rail franchise agreements. Equally, if the forthcoming bus bill in Parliament allows for the concept, it may then be open to devolved regional administrations to mandate compliance within their boundaries or across multiple jurisdictions.

The proposed higher plane is to be constructed by further developing current methodology and functionality of ticketing and journey management. Thus can be delivered through and multimodal ticketing for multiple journey legs across multiple operators. Responsibility is to mainly rest with the operators and their local area public sector partners. Surface and sub-surface public transport is to be governed, developed, and overseen by the industry itself, in partnership with both statutory and non-statutory national and regional bodies.

It is proposed that a greatly enhanced ITSO Ltd becomes both the enabler and the regulator of the resulting integrated ticketing and journey management methods. Moving to that methodology is seen by the author as a natural accompaniment to the current process of devolving powers to the regions. Moving to that devolved methodology is also seen as a necessary precursor to being able to develop end to end multi-modal through ticketing: the 'door-to-door' concept explored by DfT a few years ago, but, the author submits, not sensible or indeed possible to implement by way of a 'top down' process emanating from central government.

One key requirement for being able to implement the concept is delivering appropriate methods and systems for financial settlement. Those provisions must be available at appropriate cost to all operators of surface and sub-surface public transport.

There are already examples of relatively simple wide area arrangements. The ENCTS¹ contracts outside TfL's area, which are mainly between bus operators and Local Authorities, today probably create one of the largest, if not the largest, sets of journey records created in England as input to the process of financial settlement with operators of public transport. ENCTS of course creates only start of journey records, and thus the electronically created data for input to the settlement process is almost entirely ENCTS pass acceptance records downloaded from bus ETMs. The associated financial settlement methods are therefore quite simple in design and operation. Wales and Scotland have similar national schemes and contracts.

Another relatively large scale arrangement, again with bus operators, is for sharing revenue from the sale of PlusBus tickets as add-ons to tickets for heavy rail services. Sale of a PlusBus ticket takes place at the same time as the sale of the associated rail ticket, and is thus expected to be organised and

¹ English National Concessionary Travel Scheme

governed under heavy rail passenger service operating rules. A PlusBus ticket is valid across the town or city or region for which it is issued, and today there is no detailed electronic record of its use, although a bus driver may press a button on the ETM when someone boards with a valid PlusBus ticket. It is therefore assumed that settlement with bus operators is today a simple operation, based only on PlusBus ticket sales records, and thus it will not be considered further here. But, from the passenger's point of view, there is a Catch 22 in PlusBus: if you intend to collect your tickets at the departure station, when you set out from home you do not have in your hand the PlusBus ticket and so on the bus you have to pay separately to get to the station...

The above examples are both single mode, simple, contractual arrangements for financial settlement: ENCTS involves local contracts with bus operators, PlusBus is a national scheme. But required in the 'fully featured environment' is a general multi-modal through ticketing revenue settlement method (which is what the 'higher plane' is about). It is expected that increasingly post-journey settlement with the passenger will be added, particularly for the situation where the price of the journey is not directly related to distance travelled – bank Card as Authority To Travel (CAATT) falls into that category. Such settlement methods are expected to develop over time, so a 'big bang' rollout of full 'higher plane' methods is not recommended. Settlement methods are expected to take advantage of cloud computing services, particularly so when there are multiple operators of public transport in an area.

The target, however, is one in which the passenger is guaranteed 'best value' for journeys actually taken. Not just single point to point journeys, but multi-leg journeys with not just single operators and single travel modes, but ultimately generalised to include multi-modal and multi-operator travel. Transport for London's network is our best example of such methods today – but it is a special and relatively simple case, because most of the services in London are operated by TfL or by companies contracted to TfL, with the fare structure and price dictated by TfL.

Finally, it is proposed that the overall specification of the 'higher plane' methodology and of key components in its operation be in the hands of an enhanced ITSO Ltd. Enhancement of the current ITSO concept will include codifying and making interoperable many of the functions of existing bodies, including functions that are currently designed and operated by or for DfT.

Note: in London, where public transport operators are contracted to the public body Transport for London (which is the situation for many operators in TfL's area), the 'operator' for the purpose of this discussion is TfL. It is possible that similar arrangements will evolve for other metropolitan areas.

Annex: Presentation to March 2016 Transport Card Forum

(minor updates applied)

Surface and sub-surface public transport in the UK: future ticketing and journey management

1. Public transport in the UK is fragmented, centrally regulated but not coordinated overall. In principle our public transport is multi-modal but the fragmentation doesn't make it very obvious or in many cases easy for the traveller to navigate.
2. We need to enable multi-modal through ticketing and journey management across the entire UK, suitable for the 24/7 connected person who does everything with a smart device **and** for the person who prefers tickets and journey details on paper or thin

card. We must further develop the best of current methods for the enhanced environment of multi-modality.

3. With recent developments in and around the public sector, and emerging technology improvements to help passengers and operators, there is a window of opportunity lasting for about 6 years.
4. Do we want central government to mandate a framework? We certainly need operators, local interests, public sector, industry and regulators to work together.
5. Is a way forward taking the ITSO model up to a higher plane as a coordinating framework, but still keeping the company ITSO Ltd as a non-profit-distributing co-operative Membership organisation?
6. There are some technical papers at www.iosis.co.uk. To add or comment, contact pwt@iosis.co.uk

Peter Tomlinson for the TCF

15th March 2016

pwt@iosis.co.uk

www.iosis.co.uk

0117 370 6313