Door to door journeys: Position paper

This note

In June 2011, the Campaign for Better Transport (CBT) published a position paper on "Seamless journeys from door to door", based on – and alongside – research commissioned from TRL on "Door to Door Journeys".

This note is RTIG's position on the CBT/TRL analysis, and on the recommendations for action they contain.

Passenger needs

RTIG focuses on facilitating the delivery of improved public transport through the use of information and communication technology (ICT). In achieving this, it is extremely helpful to have confirmation of our understanding of passenger needs, current and future.

The CBT paper identifies four key areas that need to "improve for passengers", namely information; interchanges; connections; and ticketing. Of these, only interchange issues are primarily related to physical infrastructure. In fact, apart from the need for reliable service running to reduce connection risks, everything else concerns information and is therefore within RTIG's remit.

More specifically, the key issues within our remit are as follows (in our words):

- Information about services:
    - "Static" information on departure and arrival times, for journey planning
    - Real time information about their whole journey, especially delays
    - Information tailored or packaged for their specific needs
    - Simple and understandable fares

- Well-connected services:
    - Timetables that enable good connections
    - Simple and good-value fare structures for multi-leg journeys
    - Effective through ticketing (in particular, a delay in one leg should not compromise ticket validity)

- Whole journey comparison tools

RTIG fully supports this expression of passenger needs: it is consistent with the policy goals that drive our members' actions and operations, and the need to work on a whole-journey basis is the foundation of RTIG's approach to technical standardisation, operational good practice and delivery partnerships.

Current position and challenges

Delivering these requirements requires a considerable amount of planning, engineering, investment and operations, and these real-world issues can complicate the process in several ways.

- The devil is often in the detail. While we can agree that (say) "passengers need good connection information", is it clear how they need it provided? Where they should get it from? How information quality is to be measured? How many possible connections should be provided? And if some or all of these are left to local circumstances, so that service quality varies, how much does that matter?

- Systems cost money, and money is tight at the moment. While the in-principle benefits may be clear, it can be hard to monetize them. In a commercial context, a business case is needed to make a return on investment. Even in a public sector context, there needs to be evidence that the resulting social value justifies the expenditure.

- Systems take time to install and operate. Even once a decision to invest is taken, it can take a considerable time before the necessary equipment is up and running. This might be accepted as simply part of life, but the technology world is changing very fast – so there are real risks that today's investment decision is tomorrow's white elephant. Headphone sockets on trains sounded like a good idea, until mp3 players became widespread. Should we be installing expensive signs at stops and stations, if 95% of the benefit will be taken away by smartphone apps?

- Technology isn't perfect. With the best will in the world, technology doesn't always work. And some of the systems required to fulfil passengers' requirements are (at least today!) very complex. Reliability *can* be raised, but moving from "good information 80% of the time" to "good information 95% of the time" might require a huge increase in system cost.

- People aren't perfect. Even if the system works, the people using it might not. Transport operations staff generally have a baseline job to do which can sometimes be frenetic – a hurried command, a typo, or an inappropriate click might cause chaos. Again, it is possible to design systems which minimise this, but there will be a cost in usability and (usually) price.

- Industry structures do not always incentivise joined-up delivery. UK public transport relies on a delicate, and occasionally tense, relationship between public and private sector stakeholders. Each stakeholder is subject to statutory duties and incentives, which may mitigate against working effectively together. The recent Competition Commission enquiry into the local bus market is a case in point – far from encouraging local operators to cooperate, collusion-free competition is being subject to increasingly vigorous enforcement.

- The best may be the enemy of the good – or may not. As the CBT report indicates, the UK abounds with good projects, sometimes on a very local basis, sometimes on a much larger scale. But that leaves gaps, and no project does everything that it might. How important is full, seamless, uniform national coverage? By the nature of things, the projects that have already happened represent the relatively easy cases. Should we continue to "do a bit here, do a bit there", as the opportunity presents itself – or should we attempt to create a pan-UK solution? The latter would inevitably be vastly more expensive and time consuming than the former.

RTIG's role is to help tease apart some of these issues, in specific contexts – functional, geographical, political and financial. Our role is to encourage practical solutions on a consensus basis. It won't fulfil the totality of people's needs tomorrow, but it will, we believe, maximise the speed at which we can improve things.

The CBT's proposed agenda

CBT offers a series of steps to take in order to address passengers' identified needs. While each of these deserves much fuller treatment than can be sensibly contained in this position paper, what follows is a very brief outline of our assessment of these proposals, summarised in blue serif font.

As before, this covers only those aspects which are within RTIG's remit, by involving technology systems.

Information

Mapping across the country is of mixed quality; CPT, ATOC and LGA should work together to encourage the highest standards in mapping and signage.

The availability of map-related data in the travel context has been a bugbear for transport practitioners for many years. The chain of activities that goes from surveyors, to mapmakers, to network planners and transport operators, through to the public is long and tortuous, and beset by problems of accuracy, timely update and consistency of presentation.

RTIG agrees that there is a need to continue to work on improving this situation. However, because it involves many bodies in both public and private sectors, it is likely that this will require central mandate. As trade bodies, it is not clear that CPT and LGA in particular have the necessary tools. ATOC is slightly better placed but can only cover one part of the problem.

In our opinion, universally good multi-modal mapping will take a long time to achieve, and will emerge only slowly as local projects do their bit.

Government should continue to invest and use regulatory powers to ensure that real-time information is spread across the country and that all buses are fitted with the requisite equipment.

There is currently a financial incentive for bus operators to implement bus tracking systems, through the Bus Service Operators Grant (a modest bonus is payable for equipped buses). It is early days yet, but this does seem to be helping the process of rolling out real time information.

The use of regulation would impose much stricter regime, based on obligation. Regulation is a double-edged sword, and RTIG has reservations about using it in this context. By definition, regulation involves skewing the natural operation of the marketplace, which risks creating unforeseen problems (including costs) and may even be self-defeating. A full impact assessment should certainly be undertaken before regulatory changes are considered.

Regulation needs to be operated and enforced. The current bus industry regulators are not set up to monitor this kind of technical function, and would need more resource. Also, the consequences of alleged breach won't be straightforward – the legal wrangles could be messy and expensive.

The provision of real time information requires more than just devices on buses. It requires a communication network, central systems to track buses against their schedules, and a framework for disseminating information through the many available channels. Not all of this is under operators' control, so regulation at this level would need to cover many different organisations.

RTIG's view is that a partnership approach is much more likely to yield a successful outcome, in which PTEs and local authorities work with the operators in their area to ensure real time information is delivered as widely and as efficiently as possible. This provides no guarantees of universality, but it ensures that the public benefit is realised early where it is most needed.

The Government should ensure that data on timetabled and real-time public transport operations is freely available for use by third parties, subject to controls on accuracy and quality.

This recommendation falls within the scope of the Government's stated "open data" agenda, and the Department for Transport has already expressed its desires in this regard.

RTIG sees two challenges. The first is who owns the data. Data owned by central Government can be forced open; data in other bodies, public of private, is more difficult. Operators have frequently stated their unwillingness to release data they consider to be theirs. Forcing the release of this data may be possible but it not be pushing at an open door, and (as discussed above) is likely to generate costs whose magnitude is not currently known.

The second is the crucial last part of the sentence: "subject to controls on accuracy and quality". The nature of these controls, and how (and by whom) they are to be exercised, is fundamental to the practicality of this recommendation.

In the rail sector, the Office for Rail Regulation (as the relevant regulator) is currently undertaking a review of licence conditions, with a view to obliging the provision of information to the public. However, this does not go as far as obliging it to be freely available. The as-yet-unspecified "controls" would be set out in a code of practice defined by the operator – and, presumably, approved by ORR.

Connections

Passenger Focus, the ORR and the Traffic Commissioners should continue to focus on punctuality and reliability, but should also support operators keeping connections where appropriate.

RTIG supports this position: the key focus should remain on punctuality and reliability.

For connections, we see the three bodies as having different roles. Passenger Focus should certainly consider door-to-door journeys, not just single-mode trips. Connection times and reliability are important factors to monitor, including between modes. It will be interesting to quantify how significant connections are in the nation's travel, as (say) a percentage of total journey time.

The regulatory functions of ORR and the Traffic Commissioners need to be approached more delicately. We have already noted some of the real-world problems with regulation, and it should not be the first tool reached for when a problem is uncovered. In this case, the potential impacts include not only reduced punctuality and reliability, but also reduced capacity on the congested parts of the rail network as traffic management suffers from trains being held back.

It is possible to envisage technical means by which "regulated connections" can be identified and managed, though the systems and procedures will be non-trivial; it may be worth funding a pilot programme (and this should certainly be done prior to any regulatory change).

The Government should build incentives into the structure and performance regimes for the rail and bus industries to assure connections.

As noted above, it is important that any such incentives are workable: simple to operate and to understand, clear in their financial effect etc. It is even more important that they are proportionate: the operational inefficiency of delaying an individual vehicle movement must be justified by *net* public benefit (ie the advantage of assured connection must outweigh longer and less reliable journey times).

There are some key practical aspects. What would incentivise operator A to wait for a connection from operator B's service (possibly on another mode)? Who is to blame if operator B arrives late and operator A has allowed his service to depart?

These areas are relatively easy to work out on a goodwill basis. In order to formalise them into an incentive system, these details (and many others) will need to be resolved.

RTIG's view is that it would be neither practical nor beneficial to establish formal incentives for connection assurance, except in a few very specific circumstances (for example shuttle-buses from station to town centre operating under a tendered service contract).

Ticketing

DfT should work with ITAs and transport operators to introduce a simple, zoned, integrated fare structure in metropolitan areas outside London as a stage to rolling out zonal fares in all areas.

London has full control of its local fares framework in a way which is unique in the country, because of its close control over both the operations and funding of transport services. From a bus perspective, all of London's scheduled bus services are tendered, and the fares structure (and indeed the Oyster smartcard system) is part of the contracted operator's obligations.

Outside London, a number of ITAs are already engaging in dialogue with their local operators to launch multi-operator tickets, either on a smartcard platform or otherwise. This is not an easy task and is not guaranteed to result in low ticket prices. Imposing a simple zoned fare structure in an area dominated by commercial operators will be much harder yet.

RTIG's view is that this is unlikely to be practical without both substantial financial commitment, and an increase in the powers, for the ITAs.

The experience in London's and the Netherlands shows the potential for smartcards to grow demand. The current debate in the Netherlands is how long paper tickets will survive.

RTIG agrees that smartcards are often valued by travellers and convenient for operators, but we have not seen any evidence that they can by themselves grow demand. Oyster is notable for offering much lower prices than paper tickets, while available Eurostat figures do not suggest any significant growth in Dutch passenger travel.

There is certainly a challenge over how multiple types of ticket can coexist without both multiplying costs and confusing both passengers and operator staff. Aside from travel smartcards like Oyster and ITSO, the industry is currently exploring bank smartcards ("EMV") and mobile phone payment systems ("NFC"). Magstripe is dominant in rail, 2D barcode exists in a number of places including air, flash-past cards are widely used by concessionary travellers. RTIG believes that this plethora of systems will simplify, but it is likely to take a number of years.

DfT should ensure that tickets and passes valid on more than one bus operator are available and competitively priced in comparison to those only valid on one operator.

DfT has declared its desire for multi-operator cards to be created and supported, and local authorities are actively working towards these tickets. Whether they can be competitively priced is a matter for commercial negotiation; the competition authorities will doubtless be keeping an eye on this.

Bus-train integrated ticketing should be developed and requirements for standard smartcard and mobile phone readers on buses should be included over time within licensing regimes.

Bu-train integrated ticketing already exists. The national product Plusbus (promoted by ATOC) began in 2002 and now covers over 200 bus companies. In London and some other PTE areas, multimodal travelcards are available which enable bus and light rail/local train usage. Oyster is of course multimodal within the TfL estate.

Smart ticketing outside London is at an earlier stage. It is based on ITSO, the purpose of which is precisely to provide the interoperability that will be needed for this kind of ticketing product. There are a number of PTE initiatives around the UK to implement smart card ticketing around their communities, and multimodality is a key part of this activity.

However the challenges of agreeing detailed arrangements at the level of individual journeys remain substantial, for reasons similar to those connected with multi-operator ticketing. Commercial operators need to be assured that they are getting a fair income for their part of the journey, while passengers (and LAs as their "champions") would like the cost of joined-up tickets to be reduced compared with single-leg journeys.

It is worth again noting that the line taken by the competition authorities, that public transport operators should be competing at a highly disaggregated level, makes it almost impossible for operators to cooperate on developing an integrated journey offer at an advantageous price.

RTIG's view is that the technical challenges, while real, are entirely surmountable, and that the sticking point for bus-train integrated ticketing is almost entirely commercial.

Wider policy

DfT should maximise the impact of the Local Sustainable Transport Fund by ensuring best practice is shared between LAs

RTIG strongly supports this position. The programmes that we have been involved in have benefited greatly from the provision of a "programme forum" to share best practice. Most notably this applies to the £20M programme of implementing bus real-time information in 19 LA areas between 2002 and 2004. The forum we provided not only helped the LAs bootstrap their skills, but also identified and delivered a practical set of standards that enabled the supply industry to respond coherently. The continued momentum of roll out since 2004 is a legacy of this.

Other examples include the UTMC programme in road traffic management, the central ITSO function for smartcards, and the broad ranging work at RSSB for rail stakeholders. Each is a valuable tool in the implementation of policy, helping to provide smooth coordination among various local agendas.

RTIG's recommendations

RTIG agrees with much of the CBT paper in terms of the nature of the problem, and where we need to look for a solution. We think that it represents a valuable summary of passenger needs and expectations. We diverge from CBT's recommendations only where, from our operational and technical perspective, we see practical difficulties.

Our recommendations, therefore, are summarised as follows:

- There is a need to continue to work on improving mapping, especially the consistency and interoperability between map-based data. Because it involves many bodies in both public and private sectors, it is likely that this will require central mandate.

- For the implementation of real-time information, including bus equipment fits, local partnerships should continue to be encouraged, in which PTEs and local authorities work with the operators in their area to ensure real time information is delivered as widely and as efficiently as possible.

- Data on timetabled and real-time public transport operations will move towards free and open provision, driven by policy goals. Government should provide a clear statement on how the ownership of the data is respected (and, if appropriate, compensated), and what "controls on accuracy and quality" are expected to be in place.

- Passenger Focus, the ORR and the Traffic Commissioners should continue to focus on punctuality and reliability. It may be worth funding a pilot programme to demonstrate the practicality of managing "regulated connections".

- It will be difficult if not impossible to develop formal incentives for the rail and bus industries to assure connections, in anything like their current structure. We believe that a local case-by-case approach would be more effective and less bureaucratic. This might, however, necessitate a relaxation of current performance regulation.

- Zoned, integrated fares outside London are likely to be expensive to implement, and would require a significant increase in ITA powers to provide the kind of control exercised in London.

- Smartcards, and other innovative ticketing channels, are a potentially powerful tool for improving both operator capability and passenger experience. However, the plethora of systems currently available is confusing and uncoordinated. DfT should provide a much clearer technical strategy under its Smart and Integrated Ticketing initiative, so that local schemes can build to a common and interoperable framework.

- Multi-operator ticketing should continue to be the subject of local negotiation.

- Bus-train integrated ticketing is happening already, and will doubtless continue to become more widespread. The challenges are not technical, but almost entirely commercial.

- DfT has a crucial role in ensuring best practice is shared between LAs, in this as in many other circumstances. It should build on the mechanisms that have proved effective in the past.