



INTEGRATED TICKETING

A STRATEGY FOR SCOTLAND

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INTRODUCTION

This is intended to set out options for a **framework** to introduce a range of new smartcard-based integrated ticketing products across Scotland, on buses, trains and ferries. It sets out some of the key challenges, such as costs, pricing, marketing and administration of integrated ticketing.

It is envisaged that much of this strategy can only be achieved through strong partnership working between the Scottish Government, transport operators, local authorities and Regional Transport Partnerships.

This is a consultation document and a number of key questions are posed for consultees.

I. POLICY CONTEXT

- 1.1 The Government structure provides three key levels for policy:
 - Scottish Government including Transport Scotland (national policy and delivery);
 - Regional Transport Partnerships (regional policy and delivery);
 - Local authorities (local policy and delivery).
- 1.2 The **Integrated Ticketing Strategy for Scotland** will bring together some of the key aims for public transport integration so that these can be taken forward into an **implementation strategy** jointly with transport operators, local authorities and RTPs.
- 1.3 The **Scottish Government Manifesto** states: *“We will bring together Scotland’s transport stakeholders to take forward measures to ensure greater integration of our public transport network and will put forward for consideration development of an integrated paycard.”*
- 1.4 The **Scottish Government Economic Strategy**, referring to transport states: *“An efficient transport system is one of the key enablers for enhancing productivity and delivering faster, more sustainable growth. Enhancing transport infrastructure and services can open up new markets, increase access to employment and help to build a critical mass of businesses that drive up competitiveness and deliver growth.”*

It goes on to state that a **key strategic approach and policy** for transport is to provide sustainable, integrated and cost effective public transport alternatives to the private car, connecting people, places and work, across Scotland.
- 1.5 The **National Transport Strategy (NTS)** sets out the importance of integrated ticketing (para 211 ff). The themes promoted in the NTS include: “simple ticketing”; “seamless journeys”; “more attractive to users”; and “speed up boarding times for bus users”.
- 1.6 The **Regional Transport Strategy** documents also take forward some of these ideas for integrated ticketing in the context of specific requirements for each of the regions – particularly in the context of promoting bus travel.
- 1.7 The **Action Plan for Buses in Scotland**, produced to take forward parts of the National Transport Strategy, contains evidence that fares and ‘value for money’ are issues for passengers.
- 1.8 As part of the **Concessionary Travel Scheme** smart card-enabled ticket machines are being fitted to all buses across Scotland. These machines are all capable of issuing and accepting both lightweight and long-lasting smartcard tickets – and present exciting new opportunities to utilise smartcards for ticketing products for fare-paying passengers. This infrastructure will be in place on buses across Scotland by the end of 2008/09.

- 1.9 The **Back Office System for Concession Payments** also provides a basis for managing the revenue allocation and associated processes which are needed to support any kind of multi-operator integrated ticketing. This facility is one which is costly to provide purely to establish integrated ticketing, but Transport Scotland will already have a system in place through the Concessionary Travel Scheme.
- 1.10 The policy and delivery context is therefore already strongly supportive of integrated ticketing as an important part of delivering improvements in public transport. Many key elements of the framework for establishing a comprehensive system of integrated ticketing are already planned or in place. The remainder of this document examines ways in which a worthwhile scheme can be delivered in Scotland and **seeks views on appropriate ways forward**, recognising that these may be different in different parts of the country and will always involve a partnership between the many parties involved.

| Questions | |
|-----------|---|
| 01 | Is there an emerging consensus that integrated ticketing is an integral part of the development of our public transport system? |
| 02 | Which level (and why) – regional or national – is the most appropriate to set the policy and provide the framework for implementation? |
| 03 | <p>Given the need for transparency and possible constraints from financial regulations who is best placed to deliver the back office (administrative) element of integrated ticketing?</p> <ul style="list-style-type: none"> ■ Transport Scotland – (utilising the back office already in use for managing the national concessionary travel schemes)? ■ Or is it better led by a bank or some form of joint venture or independent company? |

2. DEFINITIONS

- 2.1 Integrated ticketing is a widely used term in transport. However, it has many different meanings and so we should clarify these definitions before we develop a strategy. Additionally, because integrated ticketing is linked with other aspects of integration there must first be an understanding of 'integrated transport'.

INTEGRATED PUBLIC TRANSPORT

- 2.2 Integrated public transport networks exist in different forms around the world. Understanding the nature of the integrated network is important when integrated fares and ticketing is discussed because it can influence the requirements of the system. In some countries the public transport system is planned and marketed as a single entity or, even where different components are planned separately, direct competition is minimised and opportunities for interchange are maximised.
- 2.3 However, in Scotland the provision of bus services is deregulated (i.e. open to free competition), whereas the rail and most of the ferry network are effectively under government control. In this scenario, where the prevailing ethos is 'free market', there is limited opportunity to facilitate interchange and co-ordination, with preservation of company market share often a business goal for the transport operator.
- 2.4 Passengers increasingly demand greater integration as the importance of public transport as a real alternative to the car becomes once more a key driver of policy. This has significant potential implications for the role of fares and tickets – currently fares are a key component of competitive strategy between operators in the deregulated environment.
- 2.5 The framework within which deregulated bus services currently operate is one designed for competition. Integration as a concept does not fit naturally within this framework and there are some challenges ahead as we progress integrated ticketing.
- 2.6 To achieve a fully integrated network the four basic strands of public transport operator activity all need to be integrated.
- The **service network** which is being 'sold' to potential customers, comprises:
 - The routes;
 - The stopping points;
 - The timetables;
 - The 'on-board experience'.

This integrated network of services must be supported, and preceded by, integration in the other three strands listed below – fares and ticketing, information provision and infrastructure.

- The **fares charged** and the **tickets issued**, requiring:
 - Commercial agreements between operators;
 - An agreed charging framework (fares) and revenue sharing mechanism;
 - Marketing of the integrated ticketing scheme as the primary means of payment.

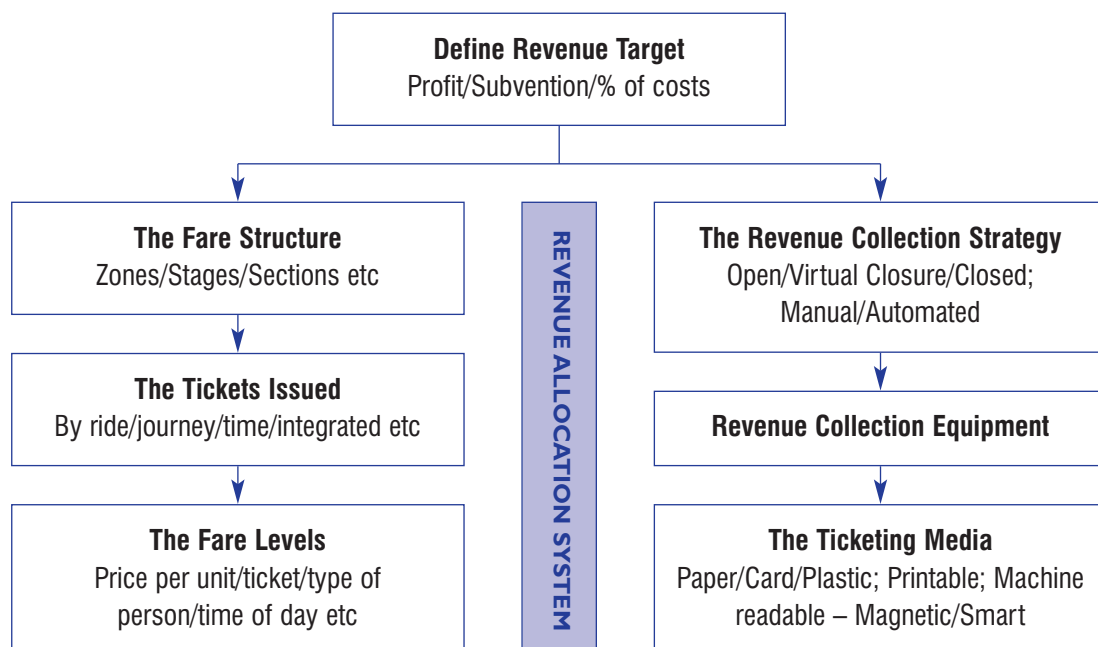
- The provision of **information** about:
 - The services offered;
 - The day-to-day operation of the network;
 - Delays and disruption;
 - The cost of using the network;
 - The procedures for using the network.

- The provision of **appropriate infrastructure** to ensure that:
 - Interchange between modes is easy;
 - Facilities at stopping points are consistent across modes and locations;
 - Information can be provided easily and flexibly;
 - Passengers feel secure.

2.7 Integrated fares (and tickets) do not make an integrated transport network on their own. In the absence of the other components they make little impact on public perceptions, because relatively few people use the network in an integrated manner. However, once a network is integrated (or used in an integrated manner by passengers) integrated ticketing becomes the 'glue' that holds things together and also keeps passenger commitment.

FARES AND TICKETING INTEGRATION

2.8 Modern fares systems are complex. They have a number of inter-related components, shown in the figure below, all of which will be present in some form.



- 2.9 In order to deliver an integrated ticketing system the agency managing the scheme should be concerned with and have some measure of responsibility for all these eight elements. In some cases this responsibility will be simply to implement policy decisions taken elsewhere – but the responsibility should preferably have a strong input into policy.
- 2.10 Within an integrated ticketing system there are many **inter-relationships** – both between elements of the system and also between participating operators. This involves:
- Technical compromise;
 - Solutions optimised across the system, not at the level of individual components;
 - Some loss of commercial freedom;
 - Mechanisms for managing the relationships.
- 2.11 One of the benefits of integrated ticketing is the freedom for a passenger to choose the most appropriate service for each part of the journey – unconstrained by fare, operator or mode – and this can lead to a loss of custom for another operator. In defining ‘integrated ticketing’ it is important that this feature is not overlooked.
- 2.12 This complex set of relationships requires an appropriate structure of **governance**. Integrated ticketing is not simply a ‘project’ to be managed, it is a way of managing the key customer interface for public transport services over the long term. Experience from around the world shows that the way the system is managed has a significant impact on the ultimate success.
- 2.13 Appropriate governance is important because it:
- Affects the extent to which participants are involved in and feel committed to decisions;
 - Gives substance to the integrated ticketing products;
 - Provides the framework for taking decisions which may not be optimum for one of the participants but which are for the system as a whole;
 - Avoids conflicting messages to both customers and suppliers;
 - Enables the creation of a body which can manage ticketing products based on e-money concepts.

2.14 Around the world there are examples of many different governance structures for integrated ticketing (also applied more widely to integrated systems). These can, however, be classified into three main types:

- A **transit authority** which mandates integrated ticketing, manages the system and pays operators from the proceeds – the authority takes any revenue risk (e.g. TfL);
- A **statutory framework** for co-operation between operators, where the joint organisation has the power to instruct the participants (e.g. the Verkehrsverbunds in Germany);
- A **company/organisation** which is a joint subsidiary of the main participants and which implements agreed actions (e.g. Greater Manchester Tickets Ltd).

| Questions | |
|-----------|---|
| 04 | Should we seek to develop a brand identity for integrated tickets or for interlinked transport (or both)? |
| 05 | To what extent do you believe the Scottish public transport network is currently integrated? <ul style="list-style-type: none"> ■ Not at all. ■ Only partly. ■ Fully integrated. |
| 06 | To achieve meaningful impact of any new integrated ticketing initiatives do we also need to standardise our approach to public transport information and infrastructure provision at a national level? |

3. ISSUES

- 3.1 A wide range of people – policy makers, professionals and transport users – all think integrated ticketing is desirable. What are appropriate objectives and alternative strategies?
- 3.2 **The public** want it – but what do they want?
- Lower fares?
 - Seamless travel (fewer transactions, better travel and fares information, less reliance on cash and exact change)?
 - New and more flexible ticket types?
- 3.3 **Policy makers** place it high on the agenda – but it is possible to introduce a highly priced product which disturbs nothing, gives little benefit, and is only of value to a few?
- 3.4 **Operators** may be nervous about the consequences of integrated ticketing:
- It may be seen as a constraint on commercial freedom;
 - There are administration costs;
 - There may be legal implications under Competition Law;
 - There are implications for encouraging competition because a new entrant does not have to establish a market.
- 3.5 **Planners and managers** of public transport also have expectations which should be carried through to formal objectives. We must ensure that integrated ticketing makes a difference.
- It encourages modal shift from car ONLY if it reduces the actual (or perceived) cost of travel;
 - It allows more effective use of each mode if it provides genuine integrated fares.
- 3.6 There are some **key practical issues** to be addressed in the objectives, to ensure that any future scheme is fit for purpose:
- Existing integrated ticketing schemes in Scotland include **rail and ferries** – therefore the strategy must include these at an early stage;
 - There is a presumption against properly integrated ticketing in UK competition law – the strategy must recognise this and consider appropriate safeguards;
 - Deregulation and integration are not immediately compatible concepts – the strategy must manage expectations and suggest compromises.

| Questions | |
|-----------|--|
| 07 | Do you agree with the issues identified? |
| 08 | How important do you consider integrated ticketing to be in terms of all the things needing to be done to increase public transport use? |
| 09 | Should we simply integrate and further promote existing schemes? |
| 10 | Which of the issues do you think is the most important? |
| 11 | Which of the issues above do you think is the least important? |

4. OBJECTIVES AND BENEFITS

- 4.1 The aim of the Scottish Integrated Ticketing Strategy is to create a framework within which it is possible to deliver a coherent and consistent family of integrated ticketing initiatives applicable across Scotland. This aim addresses a range of specific objectives:
- **Increasing sustainable economic growth** through the availability of cost effective public transport;
 - **Tackling inequalities in Scottish society** by ensuring that access to employment, education and core community services can be offered at an affordable cost;
 - **Improving accessibility** by providing a cheaper alternative to the cost of a series of more expensive single journeys on multi-leg trips.
- 4.2 Integrated ticketing is therefore not an end in itself but a means of achieving the wider policy objectives of the Scottish Government. The consultations for the National Transport Strategy and the Regional Transport Strategies, together with an analysis of the issues to be addressed, suggests that integrated ticketing is seen as addressing different objectives by different groups.
- 4.3 There are a series of expectations for integrated ticketing which come under the heading of **easier payment**:
- Replacing cash for ticket purchase (particularly on bus);
 - Reducing the need to know the exact fare at the start of the journey – or have the correct change;
 - Reducing the number of separate transactions involved in a multi-leg trip;
 - Ensuring that the fare paid is the ‘best value’.
- 4.4 Integrated ticketing is closely linked to **pre-payment**. This in turn is viewed as a way of increasing commitment to public transport.
- Smart cards offer ‘clever and flexible’ alternative ways of getting advanced commitment, through concepts such as ‘capping’ (where individual fares are paid up to a limit, e.g. the cost of a weekly ticket – and then travel is ‘free’ for the remainder of the appropriate period);
 - Prepayment is also linked with reduced fares, which are not necessarily attractive to a commercial operator.
- 4.5 Integrated ticketing is seen as part of a package of measures which could make public transport more competitive with private cars. Some of these are described in the ‘easier payment’ objectives (para 4.3), others are related to total cost of travel (below) and the competitiveness of multi-leg journeys (para 4.6).
- Integrated tickets such as Zonecard are associated with low-cost travel for regular users.

- 4.6 **Multi-modal/multi-leg journeys** by public transport are penalised within the current system, particularly if more than one operator is involved. Making such trips more attractive is critical to achieving modal shift policy objectives:
- The fare charged for multi-leg journeys under the present regime is often prohibitive when compared with the same cost of a journey by car – this may be significant in influencing choice of mode and therefore an important factor in the longer-term development of policy.
- 4.7 **Tourists** are a key target for public transport in Scotland and feedback suggests they find the current network difficult to use. Integrated ticketing will be a familiar concept for many visitors from overseas and will greatly assist in making our system easy to use. There is also scope to integrate public transport products with other tourist-related products such as entry into specific tourist attractions.
- 4.8 The 2014 **Commonwealth Games** also provide significant opportunities and expectations in respect of ticketing. Scotland must emulate or better the quality of transport system provided at preceding games, and smartcard-based integrated ticketing will be a fundamental element of the infrastructure that we will be expected to deliver.
- 4.9 The following **formal objectives** for the development of integrated ticketing in Scotland are proposed:
- A national framework for integrated ticketing must enable us to develop methods of payment for travel which make it **easy to travel** by any mode of public transport;
 - Integrated ticketing should be a key element of **marketing** the transport network to people who may not otherwise use it;
 - Any Integrated Ticketing products should be **affordable** even if this raises issues whilst markets are being grown;
 - The Integrated Ticketing system should be **simple and cost effective to administer** for all stakeholders;
 - The Integrated Ticketing Strategy should be **multi-modal**, encompassing at the very least bus, coach, rail and ferry.

| Questions | |
|-----------|---|
| 12 | Do you agree with the objectives? |
| 13 | Which objective would you place first? |
| 14 | Which objective would you place last? |
| 15 | Do you feel any of the objectives are unachievable? |

5. THE WAY FORWARD

- 5.1 The aim is to establish a national means of payment for public transport that utilises smart card technology whilst allowing the user the maximum flexibility and choice. This is based upon concepts already successfully employed by Transport for London on their ‘Pay as You Go’ Oystercard and which can be replicated with the Stored Travel Rights (STR) included in the ITSO design.
- 5.2 This vision needs to recognise **three** core components of an integrated ticketing system:
- A **smart card** which provides a platform on which different ticketing products can be encoded;
 - The **ticketing infrastructure** – smart card readers, point of sale and point of use terminals; a ‘back office’ system and a card/customer management system – most of which are already provided as part of the national free concessionary travel scheme;
 - One or more **integrated ticket products** which can be encoded on the smart card and which are recognised throughout the ticketing infrastructure, with parallel provision to be made for: single operator, multi operator and **e-money**-style operation.
- 5.3 There are three ‘integrated ticketing packages’ which can be considered for Scotland:
- Stored value/Stored Travel Rights/pay as you go (i.e. an e-purse);
 - Area-based period tickets (e.g. Zonocard/One Ticket);
 - Local travel add-ons to long-distance tickets (Plus Bus or through tickets).
- 5.4 For **stored value integrated ticketing** (based on STRs) to work there needs to be:
- A banker;
 - The smart card infrastructure to accept payment from a card for a ticket (on bus, at station, on train, on ferry);
 - A set of commercial rules which specify what fare reductions apply to smart card users;
 - An apportionment system;
 - A promoter of the cards and the fares offers.
- 5.5 For stored value ticketing to work at a **more sophisticated level** the capability to operate with tag on/tag off may be necessary. Although it may be possible to find other ways of addressing this issue, tag on/tag off would require:
- All bus ticket machines to be equipped with GPS, to give precision to fare calculation;
 - Existing infrastructure on rail and ferry needs to be supplemented or upgraded;
 - Additional exit readers on buses.

- 5.6 There are different opinions about whether existing financial services legislation restricts the potential for the development of stored value unless undertaken by a bank or similar financial institution. This could, however, introduce additional costs.
- 5.7 For a national system of **integrated period tickets** to work using the smart card infrastructure there needs to be:
- A common basis for defining areas – to allow cross-boundary tickets to be specified;
 - An agreed apportionment basis, which can be supported directly from information from the smart card system;
 - Agreement on the validation of cards on ‘open’ systems – e.g. rail and tram;
 - A common set of commercial rules so that the passenger gets the same basic products and tickets can be sold anywhere;
 - A smart-enabled sales infrastructure.
- 5.8 There are significant costs in including the rail network in any Scotland wide smart ticketing scheme and also some practical difficulties arising from the rail network being a mixture of pay on train and pay at station. These issues also have an impact on the conversion of regional ticketing schemes that already include rail services (most notably Zonecard in Glasgow and One Ticket in south-east Scotland) to smart card.
- 5.9 International experience suggests that Zonecard type ticketing is being superseded by capped pricing – that is a system where the passenger ‘pays’ for each journey by tagging the smart card, but then the system determines a maximum payment for a day (or week, or month) and only deducts value up to this limit. A commitment to provide the infrastructure for stored value ticketing (STRs), as outlined in section 5.4 would allow this element of the strategy to evolve in this way at an early stage.

| Questions | |
|-----------|---|
| 16 | Which of these three forms of integrated ticketing appeals to you most? |
| 17 | How important are fare reductions in establishing integrated ticketing? |
| 18 | What other options would you like to see included in the ticketing portfolio? |
| 19 | Are all of these actions achievable? |
| 20 | Is the strategy likely to provide value for money? |
| 21 | What role might the local authorities or Regional Transport Partnerships play in the delivery and funding of this strategy? |
| 22 | Do operators feel this would create over-reliance on government funding? |
| 23 | Given the likely costs involved, is integrated ticketing an objective worth pursuing? |

INTEGRATED TICKETING

A STRATEGY FOR SCOTLAND

CONSULTATION QUESTIONS

| CONTACT INFORMATION | | | | | |
|---------------------|--|----------------|--|----------|--|
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| Company: | | | | | |
| Telephone number: | | Email address: | | | |

| QUESTIONS | |
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| 10 | Which of the issues do you think is the most important? _____ |
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| 22 | Do operators feel this would create over-reliance on government funding? _____ |
| 23 | Given the likely costs involved, is integrated ticketing an objective worth pursuing? _____ |
| 24 | Any other comments? _____ _____ |

Please return your completed questionnaire to: integrated-ticketing@transportscotland.gsi.gov.uk.

Or by post to: Integrated Ticketing, Concessionary Fares Unit, Transport Scotland, Buchanan House,
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