

Connected Mobility

# Developing the information offer to customers

July 2023





Travel information

Train Times

Train Times

Train Times

Train Times

# Purpose

This document is intended to define scope and options for provision of passenger information across the North and identify opportunities for collaboration.

\*Note that it does not go into detail on information required for a PAYG system or account-based travel.

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# Background & Current trends

## Trends in information provision

Traditionally public transport information has been provided by transport operators and / or the Local Authority.

Before digital information became more common, this involved the production of paper timetables and displays at stops and stations, alongside customer support functions such as call centres and travel centres, at least in metropolitan areas.

In smaller Authorities, this has largely been the operators' responsibility. With the rise of internet usage, this provision gradually moved online and processes became more automated.

Some Authorities invested in Journey Planners, either bespoke or off-the-shelf, and real time information systems, in partnership with local operators.

As customer expectations and the possibilities offered by digital increased, Local Authorities have been challenged to keep up with the cost of these systems and the technical challenges of integrating legacy systems.

Bus operators have tended to focus on targeted customer offers, particularly App development, which allows them to communicate with their customers and gradually evolve the functionality available.

Rail information has always been quite centralised and these centralised datasets have been utilised by TOCs to generate timetables and other outputs.

Some Local Authority areas have also produced their own timetables. Over recent years, however, open data on the railways has enabled the development of a number of well-used Apps, together with improvements in third party sales e.g. Trainline.



More recently the national Bus Open Data platform, BODs, has also exposed more data to App developers.

Local Authorities do, however, have an important role in promoting public transport both as a service to their citizens and to support policies around reduction in private car usage, and allied reduction in air pollution and CO2 emissions

Bringing together transport information across modal silos can be seen as a key component of such policies.

**It is thus timely to consider how best the Local Authorities of the North can deliver on customer needs and these key policy objectives, and the opportunities for collaboration with each other and with third parties.**

### **Trends in access to online services**

Price comparison site Uswitch has undertaken a wide-reaching survey of UK mobile phone usage. <https://www.uswitch.com/mobiles/studies/mobile-statistics/>

Of phone users, 92% own a smart phone. As might be expected there is lower use amongst the older age group (78% of over-55s) but the number of digitally excluded or unconfident users is dropping. 62% of over-55s are regular users of the internet on a smart phone which rises to over 80% for all other age groups.

Average data usage in 2021 was around five times the level in 2016. 4g and 5g are increasingly comparable to WiFi in terms of speed of access.

68% of children aged 3-15 use smartphones to access the internet, 72% for tablet devices. 61% of children aged 10 have their own smartphone.





(Note that Transport Focus surveys are of current users, and so do not address the barriers perceived or experienced by non-users.)

A number of general points can be made arising from the Transport Focus bus, tram and rail surveys that are relevant to this report.

## Customer Preferences

It is notable that whilst there is a broad range of research in the public domain concerning transport and travel, relatively little of this concerns public opinions of this travel and even less around access to and use of customer information. Focus over recent years has been on travel trends during the pandemic and its impact on services.

For this report, we have reviewed the national bus passenger, rail passenger and tram passenger surveys undertaken by Transport Focus.

**These can be found here:**  
[transportfocusdatahub.org.uk](https://transportfocusdatahub.org.uk)

Public transport satisfaction is largely driven by issues such as reliability and punctuality, and to a lesser degree by hygiene factors including security and cleanliness.

Customer information – in the context of drivers of patronage – can be seen as a ‘nice-to-have’, but at the same time often features as one of the areas that customers believe could and should be improved.

Individual habits concerning information usage vary considerably. For example, for checking rail arrival times, 22% checked on their phone App, 21% at another online location on their phone, and 10% on a laptop, but 42% of users said they already knew the time the train was due to arrive or didn’t check at all.

There are also variations between modes on how information is used and accessed. For example, whilst more than half rail users check train running times before traveling, this is nearer a quarter for bus and rarely done for tram. This is most likely a reflection of customers' experience of reliability and anticipated wait time until the next service. Each mode also has different available sources of information regarding timetabled and actual running time including any disruption.

In any case, people already use a variety of sources for information. There is no dominant mechanism for finding public transport information. Customers use Google and other generic sources of information, operator Apps and websites, Local Authority Apps and websites, third parties such as Traveline and National Rail Enquiries and so on.



# Current Offer

## Areas for consideration

This section considers the types of questions a customer may wish answered, what is on offer now and opportunities for expanding this service.



### 1 - How to make a journey - timetables, options

- How do I get from A to B?
- What other options do I have?
- Do I have time to make a connection to another service?



### 2 - Wayfinding

- Can I view my journey on a map? e.g. for walking route or to see where the bus stop is?



### 3 - Service updates and disruption

- Is there any disruption?
- Can I check how services are running?
- What can I do if there is disruption? e.g. other services or modes, ticket transfer, delay repay



### 4 - Fares and products

- What ticket types are available for my journey(s)?
- What will it cost?
- What restrictions are there?
- What if I change my plans?





## 5 - Booking and payment

- What are my options for payment?
- Can I set up an account / payment method?
- Can I view and buy different ticket types? Can I check what services they are eligible on?
- Can I check discounts and concessions available? Can I apply for them?
- Can I tap and cap? Can I set up a bank card as a token?
- Can I see what I've paid at the end of the day?
- What else can I do? e.g. incomplete journeys
- Are there any DRT services? Can I book them?
- Are there any taxi services? Can I book them?
- Can I book other modes e.g. cycle hire



## 6 - Discounts and concessions

- What discounts or concessions might I be eligible for?
- What do they offer?
- How do I apply?
- How do I demonstrate eligibility when I travel?



## 7 - Accessibility

- Are vehicles accessible?
- Are stops and stations accessible?
- Is passenger assistance available?
- Can I bring a carer?
- What facilities are available on board? e.g. grab handles, announcements, vehicle lowering
- What facilities are available at the stop / station? e.g. seats, timetables, toilets, café, lost property



## 8 - Customer Support

- Who do I contact to support me?
- What can they help me with?
- Can I manage this online?



## 9 - Personalisation

- Can I set up a customer account for tailored information?
- What else does it offer me?

As can be seen above, the range of questions that a customer may ask is broad.





## Analysis of popular information sources

The Table below takes some different but popular sources of customer information and reviews them against the nine categories above.

|   | Generic information services   |   | Third Party Apps |   |                           |           | Local Transport Authority |   | Transport Operators |          | Industry Organisations |           |   |
|---|--|---|------------------|---|---------------------------|-----------|---------------------------|---|---------------------|----------|------------------------|-----------|---|
| <b>1 - Journey Planning</b>                 | ✓  | ✓ | ✓                | ✓ | Bus Only                  | Rail Only | ✓                         | ✓ | Bus only            | Bus only | Rail only              | Rail only | ✓ |
| <b>2 - Wayfinding</b>                       | ✓  | ✓ | ✓                | ✓ | ✓                         | ✓         | ✓                         | ✓ | ✓                   | ✓        | ✓                      | ✓         | ✓ |
| <b>3 - Service updates &amp; disruption</b> | ✓  | ✓ | ✓                | ✓ | Rail time where available | ✓         | ✓                         | ✓ | rtr                 | rtr      | ✓                      | ✓         | ✓ |
| <b>4 - Fares &amp; ticketing</b>            | ✓  | ✓ | ✓                | ✓ | ✓                         | ✓         | ✓                         | ✓ | ✓                   | ✓        | ✓                      | ✓         | ✓ |
| <b>5 - Booking &amp; payment</b>            | ✓  | ✓ | ✓                | ✓ | Single Leg                | ✓         | ✓                         | ✓ | ✓                   | ✓        | ✓                      | ✓         | ✓ |
| <b>6 - Discounts &amp; concessions</b>      | ✓  | ✓ | ✓                | ✓ | ✓                         | ✓         | ✓                         | ✓ | ✓                   | ✓        | ✓                      | ✓         | ✓ |
| <b>7 - Accessibility</b>                    | ✓  | ✓ | ✓                | ✓ | ✓                         | ✓         | ✓                         | ✓ | ✓                   | ✓        | ✓                      | ✓         | ✓ |
| <b>8 - Customer support</b>                 | ✓  | ✓ | ✓                | ✓ | ✓                         | ✓         | ✓                         | ✓ | ✓                   | ✓        | ✓                      | ✓         | ✓ |
| <b>9 - Personalisation</b>                  | ✓  | ✓ | ✓                | ✓ | ✓                         | ✓         | ✓                         | ✓ | ✓                   | ✓        | ✓                      | ✓         | ✓ |
| <b>Comments</b>                             | Apple maps has more from Google maps. Note that Google maps is available on OS |   |                  |   |                           |           |                           |   |                     |          |                        |           |   |



## Commentary

The above study highlights the following key points of the current offer:

- There are a number of Apps offering journey planning, some with real-time passenger information and the chance to do limited personalisation, e.g. putting in stops for home, work.
- The quality of the user interface is very variable and often lacking basic intuition (e.g. is it a Rail station, a Train station or a Railway station? Many journey planning functions can only recognise one of these). Most provide only basic updates on service running, and current or possible disruptions are limited.
- Mapping functions are often quite poor and not integrated into mapping functions on customer's own phones or tablets.
- Journey planning functions tend to be separate from fares, products, booking and payment, with the exception of single leg prices for some Apps (which obviously shows the advantage of having sources such as the BODs platform). As BODs develops, this functionality may also improve.

Probably the best of these Apps is TfL Go, which is a reflection of the amount of data available, the fact that pricing is fed by a centralised processing and charging system, and the investment available to TfL at the time.

It is unlikely to serve as a model for any but the largest LTAs. If and when the bus broker develops outside London, more open data may be available to make such Apps easier to develop.

## What most Apps and websites don't do is:



### 1. Make it easy for people to find the best fares and products locally

This is, in part, a reflection of the complexity of public transport ticketing in general.

Obviously, this is one reason why a London-style tap and cap system is attractive as it hides this complexity from the customer and offers a single charge.

However, there is still a need for customers to understand the framework behind this, e.g., the availability of period products and any discounts they offer; the availability of discounts and concessions based on customer characteristics e.g., young people; peak and off-peak times etc.



### 2. Offer simple booking and payment

Those that do this, e.g. Trainline, are good but are often limited on the other information functions they provide, such as station facilities and accessibility.

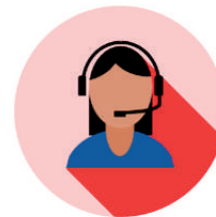


### 3. Enable personalisation and account-based travel

Linked to (1) and (2), research has shown

<https://www.transportfocus.org.uk/publication/smart-ticketing-in-the-north/> that customers like the one-stop shop approach to transport information and payments.

However, both LTAs and operators want to be the customer's first choice! It is unlikely that a third-party App provider can deliver this personalised and/or account-based function without significant intervention from both operators and the Local Authority. ABT is also likely to form the basis for a more successful MaaS delivery.



### 4. Provide customer support functions

Whilst Apps are great when they work, the test of any system is what to do if it doesn't work, if you want more bespoke information or just a human voice to help you navigate a difficult situation.

This is particularly true if you are not digitally confident or don't have access to online sources of information.

The better customer support functions are delivered via the larger LTAs because they tend to have more cross-mode, cross-operator information, and the resources to offer this function across much of the day, seven days a week.



### **5. Provide multi-modal information**

Most information sources are single mode or bus and train at best.

LTAs are best placed to bring together other modes including micro-mobility options, and potentially DRT and taxis alongside their highways management functions.



# Roles in public transport information and mechanisms for delivery

Information changes continuously. Customers use a variety of sources of information. So, the key aspiration should be the use of consistent and reliable sources of data.

There is clearly an important coordinating role for LTAs in information delivery. However, there are some key points in developing what that delivery entails, including the role the LTA plays in any scenario.

There are five roles in the information cycle:

|   | Role                     | Description   |
|---|--------------------------|---|
| 1 | Data suppliers           | Owners of the data e.g., timetables, fares, discount levels   |
| 2 | Data aggregator          | Bodies who bring together these data sources e.g., LTAs putting together multi-operator timetables; BODs platform for bus fares |
| 3 | App & website developers | Bodies who use the above data to develop outputs for customers  |
| 4 | Information promoters    | Bodies who promote where customer outputs can be found  |
| 5 | Customers/citizens       | Public transport information users consume the outputs and feedback on it to improve the offer for others                       |



There are a number of models for how the above interact.

### For example

- Operators can often be data suppliers, aggregators and promoters for single operator outputs but will procure a developer to produce Apps and other outputs using their data for their customers
- LTAs can be both data suppliers but also aggregators across multiple operators and develop their own website content
- LTAs could be data aggregators and make data open for other parties to develop content, and then promote these outputs to their citizens
- App developers can also be promoters but rely on data suppliers and aggregators to facilitate the development by making data open and easily utilised

LTAs will need to consider what role they take in the provision of customer information.



# Implications of the above

## Journey planning, wayfinding, real time and disruption information

- Google journey planning functionality is as good as most in the market. It is easily accessible to most customers, uses a well-known mapping interface, and is free.
- There are also a number of other available Apps to which customer could be signposted. Some LTAs (e.g. West Yorkshire Combined Authority) have also chosen to embed an App (Moovit) within their own offer.
- Customers tend to use sources of information with which they are familiar so trying to 'push' customers to an LTA website and / or App requires not only a great offer but also significant marketing resource.
- This suggests that investment in bespoke journey planning may not be a good use of resources unless this is as part of a partnership with an existing JP provider to, for instance, better integrate disruptions information within an off-the-shelf application.

## Fares and products, discounts, and concessions

- App providers tend to avoid delivering this unless it concerns single leg prices, which are available from the BODs platform for bus, the central rail database or the relevant light rail system. If customers want a specific price, some (usually single mode) Apps can provide this.
- However, understanding the range of products available in a geographic area is often a very poor customer experience. This is partly because it is complex and partly because the responsibility sits across a number of bodies – e.g., LTA for some concessions, operators for single operator products and some discounts, ticketing company for multi-operator products and period pass discounts, etc.
- LTAs are well-placed to bridge this gap in provision and explain simply to public transport users what is available, including pointing customers to other sites for more detail.

## Booking, payment and personalisation

- Booking and payment tend to evolve as part of mode-specific development. For rail, the role of third-party providers is well understood and utilised. However, providers of DRT, micro-mobility, taxis, bike hire, parking and so on, often develop their own applications for booking and payment.
- Most Apps also have some personalisation features, but Apps tend to major on a few key functions, and personalisation is focused on this. For Trainline, for instance, personalisation is limited to payment methods and Railcards, and 'remembering' common journeys.
- The above is not necessarily a weakness, however, as customer satisfaction can reduce as Apps add functionality and navigating to the answer you want becomes more difficult.
- At a level of complexity, therefore, fully developed account-based travel becomes a more viable way of offering personalisation. Payment and booking options can then be brought onto the platform.

# What are BSIP aspirations?

Just over a third of the North's LTAs received BSIP funding. All mention improved information but the approach taken is not the same.

Greater Manchester, for instance, aspires to a London-style offer with a one-stop shop for all information:

“Readily available; live and up-to-date; multi-modal information that is integrated with the purchase of travel and is provided in a variety of ways to reflect the needs of all customers ensuring its use is captured and used to inform service design.”

“Information will be integrated with our Account Based Mobility Service offer ensuring customers can access information alongside other services. This will include a new integrated Bee Network mobile App.”



WYCA is focused on ensuring that customers will be able to access robust, consistent information across a number of outputs.

“The passenger can log on to the app or website of their choice and find up-to-date, accurate and consistent information - detailing everything from route options, time and cost – which helps them easily plan a journey by bus”.

Effort will be placed on improving the MCard App to bring in journey planning and disruptions information to an existing and successful ticket and payment App.





For other areas, improvements are more bespoke and focused on specific gaps in current provisions.

**For example:**

Lancashire with Blackburn and Darwen say that;

“Travel disruption is a well-publicised source of frustration for passengers and can be made worse by inaccurate, inconsistent, or out-dated information leading to increased uncertainty on how to progress their journey...We want to be able to enter travel disruption information once, into a system that will seamlessly output a consistent message to customers via a multitude of channels including social media, real time displays and journey planners.”



# Recommendations and opportunities for collaboration

## Recommendations for Local Transport Authorities:

1

LTAs have a coordinating role regardless of size or aspirations. They are the only body in a position to bring together information across modes and also interface to highways

2

LTAs should consider how they use their website and other customer channels to make available options clear to customers and signposting to other sites where appropriate. This should include customer experience testing to ensure that navigation within and between sites is easy to use and understand

3

On balance, LTA applications are not rated highly by customers. This is understandable as it is not their core business. App developers are, however, specialists in user-friendly design and usage of big data, but they need accurate, consistent and regularly updated (including real-time) data to develop helpful offers for customers. LTAs have a role in making their own data open and in a format that is easily usable, and in encouraging their operators to do so

4

LTAs should consider signposting customers to Apps that they consider to be useful

5

Customers often ask for journey planning information to be brought together with booking and payment. This is likely to become much easier once LTAs and their partners have a well-functioning account-based travel system

**6**

The above will also allow more personalisation and enable the development of MaaS offers (potentially delivered by a third party) if desired at a later date

Note that the first four items above do not need to absorb significant budgets and can be implemented or improvements made to the existing offer relatively easily.

Options 5 and 6 are highly resource-intensive and should be considered alongside ABT system development, such as the work on PAYG tap and cap that will be required to interface to the bus broker. LTA bids into future BSIP funding rounds should consider customer information alongside any ticketing 'ask'.

### Recommendations for Transport for the North

**1**

TfN has a role in bringing together LTA feedback on the use of open data on the BODs platform, and acting as a consultee for future developments.

**2**

It should have a watching brief on other sources of open data and offer technical advice on making LTA and operator datasets open to developers.

**3**

TfL has a well-functioning developer hub that offers a single API for such data. <https://tfl.gov.uk/info-for/open-data-users/api-documentation>

**4**

Whilst this is a significant aspiration for the North, a model for engagement with developers across the North would be very helpful.

**5**

As noted above, WYCA uses Moovit's App on their site for journey planning. The above engagement may enable TfN to negotiate with key developers on behalf of a number of LTA areas, so that each implementation is carried out in a similar way to the same specification.



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