

Bus Services Act 2017: bus open data

We recommend completing this response form online - <https://www.smartsurvey.co.uk/s/BUSOPENDATA/>

1. Introduction

Thank you for taking the time to read the consultation document and to respond to the questions. Your answers will help shape and inform the development of the bus open data policy proposals and resulting legislation.

Confidentiality and data protection

The purpose of this survey is to seek your views on the draft policy proposals for opening up bus data. It is carried out in the public interest to inform public policy.

As part of this consultation we request the following information:

Your name and email address - in case we need to ask you follow-up questions regarding any of your responses.

You don't have to give us this information. If you do, we will not share this information with anyone.

If you do give us your contact information, you consent to DfT using it only for the purpose set out above.

All your personal data will be deleted within 3 years of collection. You can withdraw your consent for us to hold your personal data at any time by emailing busopendata@dft.gov.uk.

Find out more about the [Department for Transport's data protection and privacy policy](#).

2. Personal details

1. Your name and email address. We will only use this if we need to contact you to ask about any of your responses.

Name

Email

2. Are you responding: *

<input type="checkbox"/>	on behalf of an organisation? Go to question 3
<input type="checkbox"/>	as an individual? Go to question 51

3. Organisation details

3. Type of organisation.

	bus operator Go to question 6 after question 5
	central government Go to question 51 after question 5
	local authority Go to question 51 after question 5
	technology supplier Go to question 51 after question 5
	data aggregator Go to question 51 after question 5
	application developer Go to question 51 after question 5
	industry representative Go to question 51 after question 5
	passenger representative Go to question 51 after question 5
X	Other (please specify): Go to question 51 after question 5

RTIG is a community group which seeks to establish, support and promulgate good practice in the use of information and communications technology in public transport. With members from public authorities, transport operators, consultancies and the systems industry, we have an impartial perspective and support the common good. We have an excellent and long-standing relationship with DfT and work closely with other community groups.

4. Name of organisation

RTIG

5. Your role.

Managing Director

4. Bus operators - coverage

6. What is the coverage of your service?

	Local
	Regional
	National

7. How many vehicles are in your fleet?

	Under 20
	20 to 100
	More than 100

5. Bus operators - open data

8. Have you heard of the term 'open data' before? ie where data is shared freely and is machine readable so that it can be used by application developers to create apps for consumers?

Yes
No
Not sure

9. Were you aware that the Department for Transport would be requiring bus operators to share data (open data) about local bus services in the next few years?

Yes
No
Not sure

10. What information do you currently provide for your passengers?

Route and timetable information
Fares and ticket information
Real time information
Other (please explain):

11. How do you provide this information for bus passengers?

Operator app
Third party app
Operator website
Third party website
Bus stops signage (digital)
Bus stops timetables (paper)
Local authority website
SMS update
Traveline
Other (please explain):

12. A distributed data publishing model is one where the industry and individual bus operators are responsible for creating and publishing their own data. Do you believe a distributed data model is the right approach for the bus industry?

Yes
No
Not sure

Please explain your answer.

13. What impact do you think a distributed data model could have upon your bus operation? How would you implement such an approach? Please explain your response.

14. What benefits do you think opening up data could bring for your passengers? Please explain your response.

15. A data user is someone who would need to use open data to create applications, products and services for passengers, accessing the data through the bus open data portal. For example, an application developer. What features or functionality in a bus open data portal would help data users?

16. A data publisher is some who would need to create and publish data so that it was openly available on the bus open data portal. For example a bus operator. What features or functionality in a bus open data portal would help data publishers?

6. Bus operators - routes and timetable

17. Do you currently publish route and timetable information online?

<input type="checkbox"/>	Yes, as electronic data (eg a searchable portal)
<input type="checkbox"/>	Yes, as a downloadable file (eg a PDF timetable)
<input type="checkbox"/>	No, I don't provide this information for my passengers

If you responded NO, what are the barriers that currently prevent you from publishing route and timetable information online?

18. Do you have or use an electronic scheduling or timetabling system?

<input type="checkbox"/>	Yes, I have one and use it
<input type="checkbox"/>	Yes, I have one but don't use it
<input type="checkbox"/>	No, I don't have one

19. If you do use an electronic scheduling or timetabling system, which systems do you use for scheduling and / or mapping?

<input type="checkbox"/>	Omnibus
<input type="checkbox"/>	Trapeze
<input type="checkbox"/>	Mentz
<input type="checkbox"/>	Other (please specify):
<input type="checkbox"/>	

20. Do you submit bus service registrations electronically via the Electronic Bus Service Registration (EBSR) system?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No
<input type="checkbox"/>	Some

21. Do you currently create TransXchange files?

<input type="checkbox"/>	Yes, I create TransXchange files for EBSR
<input type="checkbox"/>	Yes, I create TransXchange files for Traveline
<input type="checkbox"/>	Yes I create TransXchange files for both EBSR and Traveline
<input type="checkbox"/>	No I do not create TransXchange files

22. As part of the bus open data requirements, the Department for Transport will require all operators of local bus services across England to open up route and timetable data by

providing an electronic TransXchange file. When this requirement comes into effect, how would you intend to meet that requirement?

	I would use my own inhouse software to create a TransXchange file
	I intend to purchase a package to create the files inhouse
	I will try to find some free cloud based software (if available)
	I will request support from my local transport authority if available
	I will employ an agent to help me meet the requirements
	I will go via another bus operator in the area to access software
	I do not know yet

23. The TransXchange route and timetable file will be used by application developers to create transport planning apps for bus passengers. What data fields do you believe should be mandatory when creating the TransXchange route and timetable file to ensure that it is useful for bus passengers? Please list the fields required and explain your response.

7. Bus operators - fares and tickets

24. As part of the bus open data requirements, the Department for Transport will require all operators of local bus services across England to open up fares and tickets data using the NeTEX format. Have you heard of NeTEX before today?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No
<input type="checkbox"/>	Not sure

25. If you answered yes (you have heard of NeTEX), do you think this is the right standard to use to open up fares data?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No
<input type="checkbox"/>	Not sure

Please explain your response.

26. Do you currently publish fare information online?

<input type="checkbox"/>	Yes, as electronic data (eg a searchable portal;)
<input type="checkbox"/>	Yes, as a downloadable file (eg a PDF fares table)
<input type="checkbox"/>	No, I don't provide this information for my passengers

If you responded NO, what are the barriers that currently prevent you from publishing fares and tickets information online?

27. What fare and ticket information do you think is most beneficial for your customers? eg singles and returns or multi operator etc. Please explain your response.

28. As part of the bus open data requirements, the Department for Transport will require all operators of local bus services across England to open up fares and tickets data by

providing an electronic NeTEx fares file. When the requirement comes into effect, how would you intend to meet the requirement?

	I would use my own inhouse software to create the files
	I intend to purchase a package to create the files inhouse
	I will try to find some free cloud based software (if available)
	I will request support from my local transport authority if available
	I will employ an agent to help me meet the requirements
	I will go via another bus operator in the area to access software
	I do not know yet

8. Bus operators - real time information

29. Are the vehicles in your fleet fitted with a real time tracker device (also known as automatic vehicle location device)?

<input type="checkbox"/>	All of my vehicles are fitted with a tracker
<input type="checkbox"/>	Some of my vehicles are fitted with a tracker
<input type="checkbox"/>	None of my vehicles are fitted with a tracker
<input type="checkbox"/>	Not sure

If you responded NO, what has prevented you from fitting your vehicles with a real time tracking device?

30. Real time information refers to passengers and others receiving live updates about the status of their bus service, usually through a display, device or website eg the bus is 3 minutes away. Do you currently provide a real time information (RTI) service for your bus passengers? Please tick all of the options that apply.

<input type="checkbox"/>	Digital displays and signage at bus stops
<input type="checkbox"/>	Traveline NextBus application
<input type="checkbox"/>	Local authority application
<input type="checkbox"/>	Local authority website
<input type="checkbox"/>	Operator mobile application
<input type="checkbox"/>	Operator website
<input type="checkbox"/>	Onboard digital displays and signage
<input type="checkbox"/>	Third party applications (Ticketer)
<input type="checkbox"/>	I don't provide RTI for passengers

If you responded NO, what has prevented you from providing a real time information service to your passengers?

31. The Department for Transport can require other types of information about the operation of bus services to be opened up as part of the bus open data regulations. In providing information to bus passengers about the operation of service, do you agree that the focus should be on providing real time information (how many minutes away the bus is) rather than bus punctuality information (how late the bus is)?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No
<input type="checkbox"/>	Not sure

Please explain your answer.

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32. As part of the bus open data requirements, the Department for Transport will require for all local bus services across England, that location data is opened up. When the requirement comes into effect, how would you intend to meet the requirement?

<input type="checkbox"/>	I would use my own inhouse real time information system
<input type="checkbox"/>	I intend to purchase an inhouse real time information system
<input type="checkbox"/>	I will rely on my local transport authority to provide real time information
<input type="checkbox"/>	I will offer real time information through my ticketing machines (eg Ticketer)
<input type="checkbox"/>	I do not know yet

33. Where do you think the requirement to provide real time information belongs?

<input type="checkbox"/>	Bus operators
<input type="checkbox"/>	Local transport authorities
<input type="checkbox"/>	Other (please specify):

Please explain your answer.

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34. What impact would the need to provide real time information, by 2020, have on small to medium sized operators?

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35. If the Department for Transport proposed that real time information should instead be provided by local transport authorities by 2020 rather than directly from bus operators, what impact would do you think this would have upon local transport authorities?

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36. What do you think are the barriers that prevent local transport authorities providing a real time information service to bus passengers in their area?

37. What incentives do you think would be required to help the bus industry move to a position of 100% real time information coverage across England?

9. Bus operators - other information

38. The Department for Transport will soon build a bus open data portal to enable operators to open up their bus data. What other types of information do you think we need to capture and reference on the Bus Open Data portal? Please explain your response (eg accessibility).

39. The National Public Transport Access Nodes (NaPTAN) database is a national dataset of all public transport access points and includes bus stops. Do you agree that a statutory requirement should be placed upon local transport authorities to maintain the NaPTAN datasets?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No
<input type="checkbox"/>	Not sure

Please explain your answer.

40. What do you think currently prevents local transport authorities from maintaining NaPTAN data?

10. Bus operators - tools and training

41. The Department for Transport intends to provide guidance for bus operators, local authorities and other stakeholders involved in the opening up of bus data. What topics and content would you like to see included in the guidance? Please explain your answer, providing examples of potential content where appropriate.

42. The Department for Transport intends to provide tools and training for bus operators, local authorities and data users (app developers) to help them open up and use bus data. What tools and training would you require to enable you / your organisation to publish data digitally?

43. What prevents you from accessing these tools and training already?

44. What support processes should be in place to assist operators who are struggling to meet the requirements?

11. Bus operators - systems and processes

45. Do you agree that open data should only be used for the purposes of making information about relevant local bus services available to bus passengers?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No
<input type="checkbox"/>	Not sure

Please explain your answer.

46. How do you currently quality assure your bus data (eg routes and timetables, fares and tickets, real time information)?

47. If you do not currently quality assure data, what prevents you from doing so?

48. In future, as part of a distributed model, how do you think bus open data should be quality assured? Please explain your response.

49. What approaches would you like to see the Department for Transport (or its agents) use to monitor compliance and ensure all operators are providing required data digitally?

50. What enforcement action / sanctions / penalties do you believe may be required to ensure operators do comply with the regulations?

This is the final question for bus operators. Thank you for completing the questionnaire.

You can respond online here - <https://www.smartsurvey.co.uk/s/BUSOPENDATA/>

Or fill in this form and send it to:

Caitriona Moore
Great Minster House,
33 Horseferry Road,
London,
SW1P 4DR

Or via email to: busopendata@dft.gov.uk

12. Distributed data model

51. Have you heard of the term 'open data' before? ie where data is shared freely and is machine readable so that it can be used by application developers to create apps for consumers.

X	Yes
	No
	Not sure

52. Were you aware that the Department for Transport would be requiring bus operators to share data (open data) about local bus services in the next few years?

X	Yes
	No
	Not sure

53. A distributed data publishing model is one where the industry and individual bus operators are responsible for creating and publishing their own data. Do you believe a distributed data model is the right approach for the bus industry?

X	Yes
	No
	Not sure

Please explain your answer.

In some senses this question is unnecessary: the Act obliges operators to "provide" data, in a standardised machine-readable way, and in terms of industry burden it doesn't much matter whether this is direct to users, via service providers, or via a central hub.

A model which *obliges* data users to obtain data through a (centralised) intermediary, rather than close to source, is necessarily more inefficient and more prone to error. Conversely, a "distributed" model, which makes data available at the earliest practical point, is likely to maximise accuracy and utility.

However, data quality is of the essence in an open data feed. While some operators may have a robust internal quality checking process, the QA function provided historically by direct recipients (local transport authorities, Traveline) has been invaluable in getting – and keeping – data accurate. The issue of data checking will be particularly important for those operators in the early stages of getting to grips with open data.

A distributed architecture does raise a number of practical technical and operational questions though, as the remainder of the Consultation document highlights. Our answers to the following question are given in this context.

54. What benefits do you think a distributed data publishing model could bring for passengers?

Generally, publishing data on bus services *could* make bus travel more reliable, more flexible, and less stressful, as passengers gain better information about their options and current service conditions both before and during travel.

There is considerable evidence that passengers feel the need for more and better information (for example in Transport Focus research), and some good evidence that there are both operational and perceptual benefits to real time information in particular (including from RTIG's own research). However, the benefits should not be overplayed, and there are obviously also costs.

More specifically, it is very difficult to give robust and quantified evidence of the passenger benefit of distributed data publishing against other "upstream" data flow architectures, or even of the benefits of fully open data against the historical tradition of "data sharing agreements" between operators and bus companies.

Furthermore, the benefit for specific passenger groups will depend greatly on what information is provided and in what form. For some passengers, accessibility information is critical; for most, though, it is of limited value. Similarly, the majority of passengers are taking familiar journeys, and most of their needs can be served by at-stop RTI displays and web-based disruption information; but a small number will benefit significantly from journey planning options.

Nevertheless, providing good data is now seen as "of the essence" across the majority of the UK bus sector. Any move towards doing this in a consistent way across all operators is seen as positive.

55. What impact do you think a distributed data model would have upon bus operators?

Clearly, all operators will need to ensure that they have the relevant data available, and some will find this easier than others. In particular many of the smallest operators have very little business IT and are dependent on others even to build a timetable. Even the largest operators, however, have not yet fully mastered the capture of AVL data and the management of RTI systems (partly for reasons outside their control). All operators will therefore need to invest in improvements, whether contracted services, basic systems, or continuous improvement programmes.

However, the impact on operators (large or small) also depends on what external services are offered, by LTAs, service providers, or Government – and what the associated costs are. Individual operators will take a commercial decision on which option is best for them.

Similarly, LTAs will need to take a view as to whether, and how, they provide any bureau services, or assist operators (including of supported bus services) to equip and manage their fleets. Budgets are still very tight, and it may be expected that many will be cautious, especially regarding any activities that require significant human resource.

It is possible that LTAs will use the wider availability of open data as a rationale for downsizing their at-stop information systems (as has already happened in some cases). Since this kind of information service is highly valued by passengers, this is regrettable. We suggest that the UK Government needs to establish a clear policy on whether, or under what circumstances, this is acceptable, and advise LTAs accordingly. Not everyone will have a personal smart device; even those that do, may not find it easy to use for bus information. In particular, it is widely recognised that many people with special accessibility needs find at-stop info absolutely essential to them.

Data aggregators will of course benefit from the availability of free open data, although the distributed model will take a little more effort than a fully centralised approach. That said, not all data aggregators have the same aims: some may wish to consolidate bus service information

nationwide (or wider) while others may be focussed on integrating bus data into other local services.

56. A data user is someone who would need to use open data to create applications, products and services for passengers, accessing the data through the bus open data portal. For example, an application developer. What features or functionality in a bus open data portal would help data users?

The Consultation Paper says simply that the Portal "could offer data users metadata describing them (e.g. URL, modality of access, detailed licensing)". This is not sufficiently detailed to allow this question to be answered unequivocally.

If the publication requirements are kept relatively open, publishers would be free to design their publication methods. Data users would then need to understand each link separately, and their function would be relatively complex.

The alternative is that publishers' metadata is required to be provided in a standardised, explicitly structured, way. This would simplify the operation of data users, at the expense of transferring complexity to the publishers, and indeed to the Portal managers.

Both approaches fulfil the letter of the Act. The first, "fully distributed", model still ensures that (specified) data is open and published for use by third parties. The second is a halfway house to centralisation, and afford many detailed variants on exactly what is standardised and/or enforced. Further, the rules could change over time, as publisher experience improves, user requirements are clarified, suppliers' systems evolve, and the benefit to end users becomes easier to measure.

We see this as a key area in which, following this Consultation, DfT needs to provide some technical clarity.

57. A data publisher is some who would need to create and publish data so that it was openly available on the bus open data portal. For example a bus operator. What features or functionality in a bus open data portal would help data publishers?

The answer to this is closely coupled to the previous answer.

If the publication requirements are relatively open, all publishers would need guidance on is how to upload – maybe a URL and some PDF files.

If publishers' metadata is required to be provided in a standardised, explicitly structured, way, the Portal service would need to include extensive technical guidance and human support.

13. Routes and timetable

56. As part of the bus open data requirements, the Department for Transport will require all operators of local bus services across England to open up routes and timetables data using the TransXchange format. Do you think this is the right approach to opening up routes and timetable data?

X	Yes
	No
	Not sure

Please explain your response.

As a non-political body, RTIG does not wish to comment directly on what should be "mandatory".

With that caveat, we note that TransXChange is a robust and rich standard, already very widely supported by the relevant systems providers. Its adoption should, therefore, limit the burden or implementation on those who already have relevant systems/data.

It is noted, though, that there are several versions and many options within TransXChange, and a requirement for its use does not *ipso facto* guarantee system interoperability.

57. The route and timetable data will be used by application developers to create transport planning apps for bus passengers.

What types of routes and timetable data do you think would be most beneficial for bus passengers? Please describe the data and explain your response.

Primary utility – for all passengers – derives, clearly, from the basic route and timetable data: stopping points ("journey pattern") and stopping times ("vehicle journey").

In addition reliable metadata on timetable validity is necessary. This includes in-timetable variations (eg "excluding Saturdays", "school days only"), special arrangements (eg for Christmas or major events), and short-term changes imposed for operational reasons (eg roadworks causing stop closure, service diversion, or short-term timetable changes).

Further, these metadata need to be unambiguous. External references therefore need careful handling. School term times are notorious, since not all schools share these precisely: this makes it hard to interpret for, in particular, a bus that serves multiple establishments. (Note that the Edubase dataset maintained by DfE is incorporated into TXC 2.4.)

Of course some passengers will benefit from additional information. Some of this will be vehicle information, such as the provision of WiFi facilities or extended accessibility space. Some will be more strictly related to route and timetable, though, such as point of interest information ("alight here for hospital"). However:

- This information could be sourced elsewhere and might be regarded as a function of information service providers rather than bus operators.
- It might be difficult to create clear rules over what information of this kind is mandatory.

59. If you work for a local transport authority, do you currently publish routes and timetable information for passengers (website, apps)?

	Yes
	No
	Not sure

If not, what prevents you from doing so?

60. What impact might the need to provide routes and timetable data from 2020 have upon bus operators? Please explain your response.

RTIG is not an operator and, while we aim to maintain an understanding of these challenges, it would not be appropriate for us to provide detailed answers on behalf of the operator community.

However, in general terms, operators would potentially need to change/upgrade their core systems, develop and integrate publication systems, develop and implement operational processes that support these (and their public users), and recruit and train people to fulfil these tasks.

The degree of challenge clearly depends entirely on what the specific demands of the regulation are, and how far an operator already fulfils them.

61. What support or assistance do you think bus operators might need to meet the requirements? Please explain your response.

As noted in question 57 and the previous question, the answer depends on the nature of the obligation and the nature of the operator. There is not yet sufficient detail present to be more definitive in a response.

14. Fares and ticketing

58. As part of the bus open data requirements, the Department for Transport will require all operators of local bus services across England to open up fares and tickets data using the NeTEX format. Have you heard of NeTEX before today?

<input checked="" type="checkbox"/>	Yes
<input type="checkbox"/>	No
<input type="checkbox"/>	Not sure

59. If you answered yes (you have heard of NeTEX), do you think this is the right approach to opening up fares data?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No
<input checked="" type="checkbox"/>	Not sure

Please explain your response.

As a non-political body, RTIG does not wish to comment directly on what should be "mandatory".

Unlike TransXChange, however, NeTEX is *not* currently widely used, and indeed is rather young as a developed standard. While it currently looks the most plausible standards-based approach to fares, the case is much less clear-cut than for routes and timetables.

60. What types of fares and ticket information would be the most beneficial for customers? eg singles and returns or multi operator etc.

This is a very difficult question to answer, since ticketing options and passenger awareness (and comfort) are highly labile.

For a service purely aimed at general enquiry, the simple provision of single and (day) return fares, undiscounted, would provide a baseline, and a "maximum" price that they could then expect to pay. However, for full transparency, all available ticket types would be needed.

While this seriously complicates both the provision of the data, and the downstream use (by service providers and end users), anything less risks distorting the market. Moreover, prospective passengers will need a clear and understandable indication, prior to purchase, of the terms of the ticket, including:

- Who can use it, when, and how;
- Other bus services that it may be used for (including whether single- or multi-operator);
- Any associated bundles (both with other travel and with non-travel products).

An information service should also indicate whether alternatives exist, for example in competing single-operator prices, family prices, cheaper fares at other times of day, options for tickets with different bundles, etc. Most of this may be derived, rather than operator-provided.

General information on season passes and their prices is also important.

61. If you work for a local transport authority, do you currently publish fares and ticket information for passengers (website, apps)?

Yes
No
Not sure

If not, what prevents you from doing so?

62. What impact might the need to provide fares data from 2020 have upon bus operators?

Our answer is the same as for routes and timetables: while it is not for us to comment in detail upon operator impacts, there are a few general observations – that operators would potentially need to change/upgrade their core systems, develop and integrate publication systems, develop and implement operational processes, and recruit and train the necessary staff.

63. What support or assistance do you think bus operators might need to meet the requirements? Please explain your response.

This depends on the nature of the obligation and the nature of the operator. There is not yet sufficient detail present to be more definitive in a response.

64. How might local transport authorities respond to a requirement to provide fares data on behalf of smaller / medium sized operators as a bureau service? Please explain your response.

There are many potential models to this, and it is likely that implementation across LTAs would be quite varied (unless constrained, or at least guided, centrally). It is not clear how problematic such variation would be, provided that the actual data provision were done uniformly.

Since this would impose a cost, and possibly a risk, on LTAs, there would need to be a good case – including financially – to respond. Three possible models include cost recovery from the operators using the bureau, grant funding by central Government, or own funding as part of local transport policy.

All of these solutions would require technical solutions that do not yet exist, and (robust) processes to go alongside.

15. Real time information

65. Real time information refers to passengers and others receiving live updates about the status of their bus service, usually through a display, device or website e.g. the bus is 3 minutes away. What options are you aware of for the provision of real time information to bus passengers in your local area?

	Digital displays and signage at bus stops
	Traveline NextBus application
	Local authority application
	Local authority website
	Bus operator mobile application
	Bus operator website
	Onboard digital displays and signage
	Third party applications (Ticketer)
	There is no RTI service for passengers
	I'm not sure

66. Where do you think the requirement to provide real time information belongs?

	bus operators
	local transport authorities
X	Other (please specify): This is a policy question and as such RTIG has no view.

67. How did you think bus operators should provide real time information for bus passengers? Please explain your response.

As phrased, this is a policy question, and RTIG has no view. However we do have some observations.

If there were no challenges in delivering it (see following), the best solution for passengers would be one that provides maximal information. This would be a combination of:

- an online query service, accessible through passengers' favoured channels (which might include everything from mock-ups of RTI signs to AI chatbots and beyond);
- a "push" service for registered users regarding their favourite services, to notify of relevant changes in operation (especially delays and cancellations);
- RTI displays/announcements at all bus stops, providing both current and appropriate future running information;
- on-bus displays/announcements, similarly providing current running information as well as relevant point-of-interest and connection information.

A telephone enquiry service would also still be useful for some classes of user (for example, those with certain cognitive disabilities).

68. What do you think are the barriers that prevent local transport authorities providing a real time information service to bus passengers in their area?

Some generally recognised barriers are as follows (of course the height of these barriers will vary from place to place):

- There is no funding to invest in the relevant systems.
- Where funding might exist, there is no business case for investment or available funding is taken by projects with a higher benefit/cost ratio.
- There are no technical skills to design, procure, implement, and/or operate the systems.
- There is no common agreement or roles and responsibilities among the stakeholders who would be involved in the overall provision.
- There is a lack of clarity regarding the system options available.
- The supply industry does not have all of the relevant products or services available at reasonable cost and quality (including communication services in remote areas).
- There is an existing system that does half the job already, with no suitable case either to extend or to replace.

69. What incentives are required to help the industry move to a position of 100% real time information coverage across England?

This is a policy question and RTIG has no view.

16. Information about the operation of the service

70. The Department for Transport can require other types of information about the operation of bus services to be opened up as part of the regulations. In providing information to bus passengers about the operation of service, do you agree that the focus should be on providing real time information (how many minutes away the bus is) rather than bus punctuality information (how late the bus is)?

	Yes
	No
	Not sure

If not, why not and what specific information on punctuality should be required?

This is a policy choice rather a factual issue, and as such RTIG has no view.

Naturally, any choice made would come with a range of technical challenges, and RTIG would be happy to comment on these.

71. The Department for Transport is currently building a bus open data portal which will be a one stop shop for bus data. What other types of information do you think we need to capture and reference on the Bus Open Data portal? Please explain your response (eg accessibility).

See answer to previous question.

17. Information about bus stops

72. The National Public Transport Access Nodes (NaPTAN) database is a national dataset of all public transport access points and includes bus stops. Do you agree that a statutory requirement should be placed upon local transport authorities to maintain the NaPTAN datasets?

<input checked="" type="checkbox"/>	Yes
<input type="checkbox"/>	No
<input type="checkbox"/>	Not sure

Please explain your response.

As a policy question, RTIG has no official view on this.

However, without a common referencing system for stops, none of the goals of the Act could be met, and it is hard to see who could (or should) deliver and maintain such a referencing system other than the LTAs who are responsible for the stop assets.

It is noted that we have found substantial support for this approach among our members, which we have previously represented to DfT

73. What do you think currently prevents local transport authorities from maintaining NaPTAN data?

As for our answers to previous questions: lack of manpower, skills, funding and a clearly agreed role.

18. Tools and Training

74. The Department for Transport intends to provide guidance for bus operators, local authorities and other stakeholders involved in the opening up of bus data. What topics and content would you like to see included in the guidance? Please explain your answer, providing examples of potential content where appropriate.

The Regulation and associated guidance should, between them, be sufficiently clear in describing:

- *what* data needs to be provided (data structures and models);
- *how* it needs to be provided (communications and publication protocols);
- *to whom* it needs to be provided;
- *when* it needs to be provided (frequency, timeliness, on demand etc);
- the legitimacy or otherwise of terms of provision (licence conditions);
- how compliance will be monitored (including any reporting requirements) and enforced;
- the penalties for non-compliance.

75. The Department for Transport intends to provide tools and training for bus operators, local authorities and data users (app developers) to help them open up and use bus data. What tools and training would you require to enable you / your organisation to publish data digitally?

As previously, since RTIG is not an operator, this question is not applicable.

Note that RTIG already provides a range of specification and guidance materials to the community around the use of technology (though currently little is specifically related to open data publication).

76. What prevents you from accessing these tools and training already? Please explain your response.

This question is not applicable to RTIG.

19. Use and disclosure of information

77. Do you agree that open data should only be used for the purposes of making information about relevant local bus services available to bus passengers?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No
<input type="checkbox"/>	Not sure

Please explain your response.

This is a policy choice, and as such RTIG has no view.

20. Compliance and enforcement

78. What approaches would you like to see the Department for Transport (or its agents) use to monitor compliance and ensure all operators are providing required data digitally? Please explain your response.

Insofar as this represents a policy choice rather than factual matters, RTIG would not wish to comment.

Our only observation is that any support processes should obviously be market neutral. Dilatory operators should not be rewarded for not investing (or not having historically invested) in systems or processes. It would however be reasonable for contextual factors to be taken into account, for example extra time to implement or lower compliance thresholds for rural services where communications may be (or may have been) patchy or expensive.

79. What support processes should be in place to assist operators who are struggling to meet the requirements? Please explain your response.

Our answers are provided at relevant points in the questionnaire.

It is not clear how DfT would seek to identify and provide support for an operator who was "struggling", as opposed to support for operators generally, without at least risking market neutrality. This may be a matter left for LTAs to negotiate with their local operators.

80. What enforcement action / sanctions / penalties do you believe may be required to ensure operators do comply with the regulations? Please explain your response.

This represents a policy choice, and RTIG would not wish to comment.

How to respond

The consultation period began on 05 July 2018 and will run until 16 September 2018. Please ensure that your response reaches us before the closing date.

If you would like further copies of this consultation document, it can be found at <https://www.gov.uk/dft#consultations> or you can contact busopendata@dft.gov.uk if you need alternative formats (Braille, audio CD, etc).

You can respond online here - <https://www.smartsurvey.co.uk/s/BUSOPENDATA/>

Or fill in this form and send it to:

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