Title: **Maintenance of bus stop and locality datasets**	**Impact Assessment (IA)**
IA No: DfT00378	**Date:** 03/02/2017
RPC Reference No: RPC-3636(1)-DfT	**Stage:** Final
Lead department or agency: Department for Transport	**Source of intervention:** Domestic
	Type of measure: Primary legislation
	Contact for enquiries: Laura Teale
Summary: Intervention and Options	**RPC Opinion:** EANDCB Validated

Cost of Preferred (or more likely) Option				
Total Net Present Value	**Business Net Present Value**	**Net cost to business per year** (EANDCB in 2014 prices)	**One-In, Three-Out**	**Business Impact Target Status**
NQ	£0	£0	In scope	Qualifying provision

What is the problem under consideration? Why is government intervention necessary?

Underpinning existing journey planning tools is a national dataset containing a record of each bus stop across England, Scotland and Wales, as well as records for rail, metro, ferry and air terminals. This is known as the National Public Transport Access Nodes (NaPTAN) dataset. NaPTAN is complemented by the National Public Transport Gazetteer (NPTG) - a record of all localities in Great Britain. Currently both datasets are maintained voluntarily by LTAs, but they could stop maintaining them, if they decided to. If one or more local authorities or other contributors were to stop maintaining these datasets, the quality of data in that specific area would erode over time.

What are the policy objectives and the intended effects?

Government intervention is necessary to enable regulations to be made, which could make the maintenance of bus service datasets a statutory requirement, in case local authorities cease maintaining these voluntarily, and a non-legislative solution cannot be agreed. This intervention intends to widen the existing regulation making powers in the Bus Services Bill to enable the Secretary of State to require the maintenance of the datasets, should this become necessary in future. If the use of these powers becomes necessary, a full assessment of the impacts will be made.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

Default option: **Do minimum – dataset maintenance remains voluntary**

Under do minimum, LTAs may choose to stop maintaining datasets, which would compromise the accuracy of route planning services and applications, in affected areas.

Non-legislative option: maintain a relationship with LTAs and stakeholders, and agree a way forward to secure the long-term maintenance of the datasets

DfT would use its relationship with stakeholders to avoid local discontinuation of dataset maintenance, by acting early if LTAs consider doing so, and considering alternative options with them. However without statutory backing, the risk of discontinued dataset maintenance remains, without a guaranteed alternative.

Option 1: **take powers to mandate the maintenance of bus stop and locality datasets, but only seek to use them after non-legislative options ruled out**

Option 1 is preferred, given that the datasets are fundamental to the production of meaningful bus journey planning information for passengers.

Will the policy be reviewed? It will be reviewed. If applicable, set review date: May/2022

Does implementation go beyond minimum EU requirements?		N/A		
Are any of these organisations in scope?	**Micro** Yes	**Small** Yes	**Medium** Yes	**Large** Yes
What is the CO_2 equivalent change in greenhouse gas emissions? (Million tonnes CO_2 equivalent)		**Traded:** N/A	**Non-traded:** N/A	

I have read the Impact Assessment and I am satisfied that (a) it represents a fair and reasonable view of the expected costs, benefits and impact of the policy, and (b) that the benefits justify the costs.

Signed by the responsible SELECT SIGNATORY: Andrew Jones **Date :** 9th March 2017

Summary: Analysis & Evidence

Policy Option 1

Description: take powers to mandate the maintenance of bus stop and locality datasets, but only seek to use them after non-legislative options ruled out

FULL ECONOMIC ASSESSMENT

Price Base Year: 2014	PV Base Year: 2015	Time Period Years: 10	Net Benefit (Present Value (PV)) (£m)		
			Low: NQ	**High:** NQ	**Best Estimate: NQ**

COSTS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	NQ	NQ	NQ	NQ
High	NQ		NQ	NQ
Best Estimate	NQ		NQ	NQ

Description and scale of key monetised costs by 'main affected groups'

Either local authorities or bus operators will be required to maintain bus stop locations in the relevant national datasets, with the likelihood that the responsibility will remain with local authorities (Central scenario). We assume that local authorities continue to maintain the databases in the counterfactual, so there are no new costs in the Central scenario. In the event that the responsibility is transferred to bus operators (High scenario), the ongoing administrative costs of maintaining the datasets will transfer from local authorities to business. Businesses will also incur one-off familiarisation costs as they take ownership of the databases.

Other key non-monetised costs by 'main affected groups'

N/A

BENEFITS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	NQ	NQ	NQ	NQ
High	NQ		NQ	NQ
Best Estimate	NQ		NQ	NQ

Description and scale of key monetised benefits by 'main affected groups'

It has not been possible to monetise the benefits of this policy due to a lack of data.

Other key non-monetised benefits by 'main affected groups'

The intervention would underpin the ability for accurate journey planning information to be provided to passengers, and supports the benefits outlined in the wider bus "digital by default" and open data measures - covered in Bus Services Bill IA 0338. This includes improved journey quality, increased bus patronage, environmental benefits from switching from car travel, and an indirect dis-benefit to Treasury of reduced car fuel duty.

Key assumptions/sensitivities/risks **Discount rate (%)** 3.5%

The costs of maintaining datasets, and familiarising with them remain constant over time.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			Score for Business Impact Target (qualifying provisions only) £m: £0
Costs: £0	Benefits: £0	Net: £0	

Evidence Base

1. Problem under consideration

Underpinning existing journey planning tools is a national dataset containing a record of each bus stop across England, Scotland and Wales, as well as records for rail, metro, ferry and air terminals. This is known as the National Public Transport Access Nodes (NaPTAN) dataset. NaPTAN is complemented by the National Public Transport Gazetteer (NPTG) - a record of all localities in Great Britain, which is maintained in the same way, but is a smaller dataset than NaPTAN. The datasets are owned by DfT but the maintenance of the data is completed by local transport authorities (LTAs). Adding, editing or removing a stop is a minor task. Similarly, the process to upload the data to the national database is minimal. The volume of changes required per month depends on changes happening on the ground.

Currently both datasets are maintained voluntarily by LTAs, but they could stop maintaining them if they decided to.

Having an up-to-date comprehensive dataset, which accurately and uniquely describes and locates all bus stops in a common format, and can be used free of charge (i.e. an "open data format"), is fundamental to the production of useful journey planning information for passengers.

If one or more local authorities or other contributors were to stop maintaining these datasets, the quality of data in that specific area would be eroded over time.

2. Rationale for intervention

There may be potential for this gap to be filled by the market but there would be no certainty over whether this would be the case. The reason is that the incentive for individual operators may not be sufficient to participate, if they do not believe the benefits to their own client base are sufficient. A market solution could introduce charges and some operators may not participate if there is no financial incentive, or requirement to do so. Charging for datasets would be a concern, as the policy objective is to keep the basic services underpinned by these datasets free. Relying on consumers to voluntarily share stop locations to a central dataset will also be inadequate, as it will not guarantee dataset completeness and accuracy.

Therefore there is a risk that relying on a market solution would fail the aims above, and have an impact on high profile journey planners such as Traveline, Citymapper, Google, etc., resulting in poor or incomplete information being provided to passengers. There is a possibility that these organisations may themselves step in and take over maintenance of these datasets, but it is uncertain whether that would take place.

Government intervention is necessary to enable regulations to be made, which could make the maintenance of bus service datasets a statutory requirement, in case local authorities cease maintaining these voluntarily and a non-legislative solution cannot be agreed. This intervention intends to widen the existing regulation making powers in the Bus Services Bill to enable the Secretary of State to require the maintenance of the datasets, should this become necessary in future. If the use of these powers becomes necessary, a full assessment will be made of the market failures, and costs and benefits of various options for intervention.

3. Policy objective

The Bus Services Bill, which is currently in Parliament, already includes provision to enable regulations to be made requiring operators and franchising authorities to provide information about routes, timetable, fares and real-time data. The intention is to make it easier for passengers to access information about their journey, with the market expected to use the data to offer applications, which would improve the information available to consumers e.g. through web or mobile apps. The impact of that intervention is assessed in IA DfT00338[1].

The maintenance of the datasets is fundamental to the delivery of the benefits of those provisions. Without accurate, up to date bus stop information the value of the data subsequently produced (routes, timetables, real-time and fares data) is greatly diminished and this will have direct negative impacts on the passenger, as the information supplied is not accurate or trustworthy. The datasets are the foundations on which the existing open data provisions of the Bus Services Bill are based. We have engaged with authorities and operators on the open data proposals and they have said that maintenance of the datasets should be a statutory requirement to ensure that the information provided to passengers is meaningful.

4. Description of options considered

4.1 Option 0 – Do nothing

[1] See https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/558392/the-bus-services-bill-impact-assessments.pdf

Under do minimum, LTAs may choose to stop maintaining datasets, which would compromise the accuracy of route planning services and applications. Customers in affected areas will stop having access to accurate and reliable journey planning information.

Non-legislative option: maintain a relationship with LTAs and stakeholders, and agree a way forward to secure the long-term maintenance of the datasets

Under this option DfT would use its relationship with stakeholders to avoid local discontinuation of dataset maintenance, by acting early if LTAs consider doing so, and considering alternative options with them. However without statutory backing, we cannot remove the risk of discontinued dataset maintenance, or guarantee an alternative such as bus operator maintenance. This option also does not remove the risk that a market solution may become necessary, which could lead disruption of data provision, charges to consumers for using the datasets, or incompleteness.

4.2 Option 1 – take powers to mandate the maintenance of bus stop and locality datasets, but only seek to use them after non-legislative options ruled out.

Option 1 is preferred, given that the datasets are fundamental to the production of meaningful bus journey planning information for passengers. DfT will work with local authorities to ensure that they continue to maintain the NaPTAN and NPTG datasets, without recourse to legislation. However, if it became clear that local authorities were no longer maintaining them and other avenues to secure their ongoing maintenance had been unsuccessful the Department would consult on making the requirement mandatory, through secondary legislation.

In the event that we make the maintenance of these datasets mandatory, it would be logical to place the requirement on local authorities as they already voluntarily maintain these datasets, and it would avoid business regulation. In this case there will be some additional costs placed on those local authorities that would otherwise choose to discontinue the maintenance of the datasets, in the do minimum.

5. Direct costs and benefits

Cost scenarios

The responsibility and costs for maintaining the datasets would either fall on local authorities *or* bus operators. We expect that there would not be a hybrid system whereby both LTAs and operators fulfil this duty (e.g. operators filling the gap for a specific area where the LTA has ceased maintaining its datasets). Whilst there is some uncertainty about the costs of maintenance, these are the two broad outcomes that we expect, with a very high likelihood that maintenance would remain the responsibility of LTAs. As a result, we do not present a Low scenario.

We provide a range for the costs of maintenance in each scenario. Additionally, given the relatively small amount of staff resource required to maintain the datasets, we believe the costs will be small relative to the size and staff resource of LTAs, and most bus operators.

Benefits

As the intervention would underpin the ability for accurate journey planning information to be provided to passengers, it will support the benefits outlined in the wider bus "digital by default" and open data measures - covered in Bus Services Bill IA 0338[2]. This IA estimates whole policy Net Present Value between £230m and £1.4bn, with costs of £20-24m. Therefore while it has not been possible to estimate the benefits from the intervention at hand, we believe they will be net beneficial to consumers and society.

These benefits are namely:

- improved journey information and comfort to consumers;
- increased patronage and revenue for bus operators, from simpler and more attractive journeys;
- improved environmental and congestion impacts, due to switching from car travel
- a small dis-benefit of a loss of car fuel duty to Treasury.

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[2] See https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/558392/the-bus-services-bill-impact-assessments.pdf

As both scenarios provide the same outputs for consumers, we expect the gross benefits will be identical in both cases.

Central cost scenario – all costs fall on local authorities

The responsibility and costs for maintaining the datasets are highly likely to remain with local authorities – therefore in our Central scenario, no costs fall on bus operators (i.e. businesses). Moreover, we do not have evidence to suggest how many local authorities may cease to maintain the datasets in the absence of this intervention, and therefore assume that they continue to support them in the counterfactual. The costs to local authorities from the intervention are therefore assumed to be zero.

We have limited information on the costs to local authorities associated with maintaining the NaPTAN and NPTG datasets, as this is normally a very small part of someone's job. Local authorities that manage data themselves will have their own software to do this so adding, editing or removing a stop is a minor task. For example, entering data for a new stop will need around 15-20 fields to be populated but most of these will be the same as nearby stops so this only takes a few minutes. The process to upload the data to the national database is minimal, it requires logging in, attaching necessary files and then clicking the upload button. Some local authorities have indicated that the amount of time spent on maintaining the datasets ranges from 0.84 to 1.1 days per month, per local authority[3]. Using these as upper and lower bound estimates, and scaling up to all 89 authorities, gives us a range of time spent by each local authority between 80 and 105 hours per annum.

Applying these estimates to ONS evidence[4] on hourly wage for administrative and secretarial positions (£10.16), gives us a total cost range for *all* 89 LTAs between £87,000 and £114,000 per annum in 2014 prices. This also includes a non-wage cost uplift of 20.2%.

In the event that we make the maintenance of these datasets mandatory, each local authority that would otherwise have chosen to discontinue their maintenance, is therefore expected to face additional costs of around £1,000 - £1,300 per annum in 2014 prices, when dividing the total costs among 89 LTAs (including the non-wage cost uplift of 20.2%).

High cost scenario – all costs fall on bus operators

The importance of maintaining the datasets is such that the regulation making power would enable the requirement to be placed on operators, should this become necessary.

In order to provide a more conservative High scenario, we assume that *all* bus operators would become responsible for providing data and maintaining the datasets. In practice, there may be exemptions for certain operators e.g. based on their size. This would be decided at the time of developing policy options.

Although this scenario is unlikely to materialise, all ongoing costs associated with maintaining the datasets would be transferred from local authorities to bus operators. Additionally, there would also be one off costs to operators from having to familiarise themselves with the new legislation. Based on evidence from LTAs, we believe the one off familiarisation costs to be equivalent to half a day (4 hours) of a full time equivalent administrative member of staff, *per LTA*. In order to produce a conservative High scenario, we assume that these familiarisation costs would be incurred per *bus operator*, despite the fact that most operators would be responsible for much smaller sections of the dataset than an entire LTA. There are 835 operators in England outside London[5], compared to 89 LTAs, so this assumption provides a much greater total familiarisation cost.

Using the wage for staff in administrative and secretarial positions from ONS statistics (£10.16 per hour[6]) and non-wage cost uplift[7], we estimate familiarisation costs of around £48 per operator. We estimate total familiarisation costs to operators of approximately £40,000[8] (based on 835 operators).

We assume that *total* ongoing costs are the same, whether the datasets are maintained by LTAs or operators. This is because once businesses are familiarised with the process, the ongoing maintenance effort required is likely to be proportionate to the volume of data that needs to be supplied – i.e. an operator would only incur ongoing costs as high as those of an LTA (£1,000 - £1,300 per annum as above), if they need to provide as much data as an LTA currently does.

This indicates that the cost to business in the most expensive year (that of implementation) could range from £130,000 to £160,000. This has been estimated by adding the costs to all local authorities, as estimated above at approximately £87,000 - £114,000, to the one off familiarisation costs of approximately £40,000, which will be incurred in the first year

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[3] Based on information supplied from two Traveline regions.

[4] ONS, 2016, Annual Survey of Hours and Earnings (ASHE)

[5] DfT, 2016, Table BUS1002

[6] ONS, 2016, Annual Survey of Hours and Earnings (ASHE)

[7] 20.2%

[8] Including non-wage uplift of 20.2%

of the regulation coming into force. Some of these costs may be passed on to consumers through higher fares, but given their small magnitude, there is a likelihood that they are internalised by operators. Conversely, local authorities would make savings equivalent to the total ongoing costs.

Direct costs and benefits to business calculations (following OI3O methodology)

This measure will be within One-in, Three-out. In the Central scenario, all costs fall on local government, and would not be in scope of the Business Impact Target (BIT), or included in the EANDCB and BIT scores. However, the High scenario is in scope of the Business Impact Target as all costs fall on business. Therefore we estimate an EANDCB between £0m in the out-of-scope Central scenario, and £0.1m[9] in the High scenario (which is in scope). The BIT score ranges from £0m in the Central to £0.5m[10] in the High scenario.

Our EANDCB and BIT score best estimates are based on the Central scenario in the range above, as it is the most likely one to materialise[11]. The best estimate EANDCB and BIT scores are therefore both £0.0m. The best estimate of business net present value from 2017 to 2026 is also £0.0m.

Low cost regulatory measure

Based on a highly conservative assumption that all of the costs of maintaining the bus stop datasets will fall to businesses, and their familiarisation costs are higher in total (see above), gross costs to businesses in the most expensive year are estimated at £130,000 - £160,000.

[9] Rounded to the nearest £0.1m.

[10] Rounded to the nearest £0.1m.

[11] In accordance with paragraph *2.3.49* of BEIS (2016) Better Regulation Framework Manual