



Department  
for Transport

# Bus Open Data

Release 1.16.0 Update

**PTIG General Meeting**  
**3<sup>rd</sup> March 2022**

# Summary of Release 1.16.0 1/3

- Release 1.16.0 focuses on widescale changes to FBODS to increase the ways in which users can access and consume the data available. There are also wholesale changes to the UI to make using FBODS easier. (More detailed information about the main feature updates can be found on the following pages in the 'Key Updates' section of this report.)
  - FBODS data catalogue (details on pages 13-14 (Data catalogue Updates))
    1. Consumers can download the data catalogue by clicking on the 'Download the data catalogue' link on the 'guide me' page.
    2. Data catalogue includes a user's guide, location data, operator's NOC, organisations' data, timetables' data, and overall data.
  - API Updates (details on pages 15-17 (API Updates))
    1. Users can access the API service through the 'guide me' page.
    2. Add new query parameter of 'vehicleRef' to the AVL API.
    3. Add new query parameters of 'limit' and 'offset' to the Fares API.

# Summary of Release 1.16.0 2/3

- FBODS Browse Page (details on pages 18-19 (Search Updates))
  1. Timetable and fares data can be searched by NOC, Operator name, location, and Description in the 'Browse data' page.
  2. AVL data can be searched by Operator name, NOC, and Description.
- Individual Data Set Page update(details on pages 20 (Design Updates))
  1. Add 'Noticed issues with this data set?' at the bottom of the individual data set page for all data types, which helps consumers who are already logged in to provide their feedback.
- User ability to directly contact operators (details on page 17)
  1. Can contact data set/feed owner via dataset detail pages
  2. Can contact via operator profile page
  3. Option to contact anonymously

# Summary of Release 1.16.0 3/3

- Operator Profiles (details on pages 21-23)
  1. Users can search and filter through all the operators registered on BODS
  2. Accessing individual operator profile pages provides detail about the operator and their data on BODS
  3. Access to APIs and browse functions for their data specifically
- Increased data gathering on consumers (details on page 28)
  1. Log-in required to consume data (download, use APIs)
  2. More information gathered at account creation
- Usability Changes (details on pages 25-27)
  1. New 'Guide Me' page
  2. Updated UI
  3. Information pop-ups explaining phrases to users

# Summary of Releases 1.16.1 & 1.16.2 1/1

- Release 1.16.1 is a patch release including:
  - A fix to issues PBODS users were encountering with bank holiday operation in their timetables data
  - The addition of TfL data to download all
  - Admin users can edit the Agent Organisation field for a BODS User on the Django admin portal
- Release 1.16.2 is a patch release that consists of 1 bug and 1 story. The validation check for timetables data will no longer check the OTC database for service codes. This is due to the database lacking all data required to accurately check service codes.

# Key Updates



# Data Catalogue Updates 1/2

Data catalogue will provide users with a comprehensive view of all data published on BODS and provide matching information between different dataset types

- Consumers can download the data catalogue by clicking on the 'Download the data catalogue' link on the 'guide me' page

The screenshot shows the 'Find Bus Open Data' page on GOV.UK. The header includes the GOV.UK logo, the title 'Find Bus Open Data', and navigation links for 'Home' and 'Guide me'. A 'Sign in' link is also present. A 'BETA' banner indicates this is a new service. The breadcrumb trail shows the path: 'Bus Open Data Service > Find Bus Open Data > Guide Me'. The main heading is 'Guide me'. Below it, a paragraph advises users to review guidance for a better BODS experience. A link 'download the Data Catalogue' is provided for a quick tour. To the right, under 'Need further help?', there are links for 'National Operator Code', 'Changelog', 'Data catalogue field definitions', and 'Contact us for technical issues'. The page features a numbered list of steps: 1. 'Read supporting documents' with a link to 'View user guide' and a description of the user guide's contents. 2. 'See what is on BODS' with links to 'Browse data' and 'Download the data catalogue', and a description of the data search and download options.

**GOV.UK** Find Bus Open Data  
Home Guide me Sign in

**BETA** This is a new service – your [feedback](#) will help us to improve it.

[Bus Open Data Service](#) > [Find Bus Open Data](#) > Guide Me

## Guide me

We advise all users to review the following guidance for a better Bus Open Data Service (BODS) experience.

For a quick tour of what has been published on BODS [download the Data Catalogue](#)

**Need further help?**

- [National Operator Code](#)
- [Changelog](#)
- [Data catalogue field definitions](#)
- [Contact us for technical issues](#)








- 1 Read supporting documents**
  - [View user guide](#)
  - The user guide includes the schema, road map and best practise using BODS data.
- 2 See what is on BODS**
  - [Browse data](#)
  - You can search and filter the database. You can also download the specific dataset or subscribe or copy the dataset Application Programming Interface (API).
  - [Download the data catalogue](#)
  - Data catalogue will provide you with a comprehensive view of all data published on BODS and provide matching information between different dataset types.



# Data Catalogue Updates 2/2

**Data catalogue will provide users with a comprehensive view of all data published on BODS and provide matching information between different dataset types**

- Data catalogue includes a user's guide, location data, operator's NOC, organisations' data, timetables' data, and overall data:

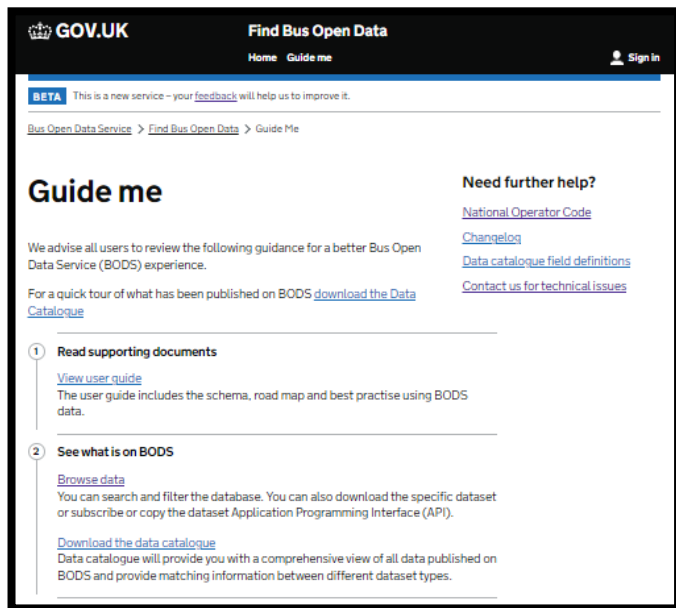
<input type="checkbox"/>	Name	Date modified	Type	Size
	bodsdatacatalogue.zip	27/01/2022 14:39	WinZip File	1,774 KB
	data_catalogue_guidance.txt	27/01/2022 14:24	Text Document	14 KB
	location_data_catalogue.csv	27/01/2022 14:24	Microsoft Excel Com...	6 KB
	operator_noc_data_catalogue.csv	27/01/2022 14:23	Microsoft Excel Com...	6 KB
	organisations_data_catalogue.csv	27/01/2022 14:24	Microsoft Excel Com...	22 KB
	overall_data_catalogue.csv	27/01/2022 15:16	Microsoft Excel Com...	6,783 KB
	timetables_data_catalogue.csv	27/01/2022 14:24	Microsoft Excel Com...	4,984 KB



# API Updates 1/3

A registered consumer of BODS API will access the API service through the 'guide me' page and use the new parameters of the location data and Fares data APIs

- Users can access the API service through the 'guide me' page



The screenshot shows the 'Find Bus Open Data' page on GOV.UK. The header includes the GOV.UK logo, the title 'Find Bus Open Data', and navigation links for 'Home' and 'Guide me'. A 'Sign In' link is in the top right. A blue banner indicates a 'BETA' status with a feedback link. Below the banner, a breadcrumb trail reads 'Bus Open Data Service > Find Bus Open Data > Guide Me'. The main content area is titled 'Guide me' and contains introductory text about the BODS experience, a link to 'download the Data Catalogue', and a 'Need further help?' section with links to 'National Operator Code', 'Changelog', 'Data catalogue field definitions', and 'Contact us for technical issues'. A numbered list on the left shows the current position: 1. Read supporting documents, 2. See what is on BODS, 3. Get an account, 4. Use download, and 5. Use API.

**GOV.UK** Find Bus Open Data  
Home Guide me Sign In

**BETA** This is a new service – your [feedback](#) will help us to improve it.

[Bus Open Data Service](#) > [Find Bus Open Data](#) > [Guide Me](#)

## Guide me

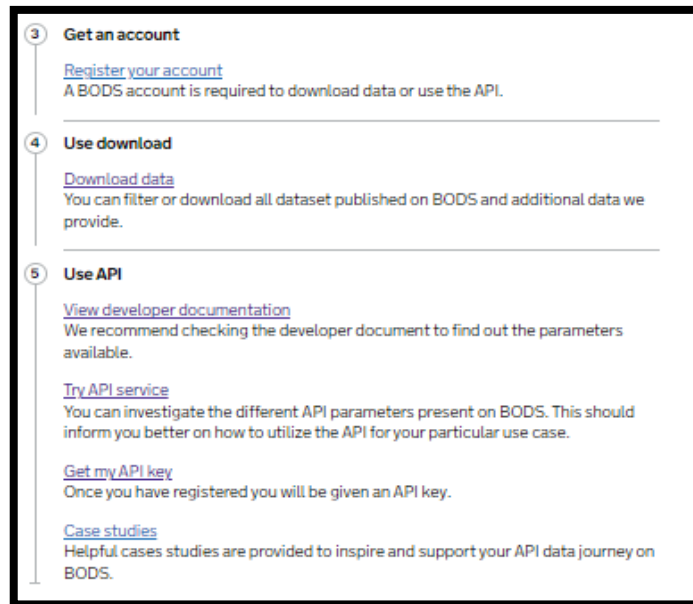
We advise all users to review the following guidance for a better Bus Open Data Service (BODS) experience.

For a quick tour of what has been published on BODS [download the Data Catalogue](#)

### Need further help?

- [National Operator Code](#)
- [Changelog](#)
- [Data catalogue field definitions](#)
- [Contact us for technical issues](#)

- 1 Read supporting documents**
  - [View user guide](#)  
The user guide includes the schema, road map and best practise using BODS data.
- 2 See what is on BODS**
  - [Browse data](#)  
You can search and filter the database. You can also download the specific dataset or subscribe or copy the dataset Application Programming Interface (API).
  - [Download the data catalogue](#)  
Data catalogue will provide you with a comprehensive view of all data published on BODS and provide matching information between different dataset types.



This screenshot shows the continuation of the 'Guide me' page, specifically steps 3, 4, and 5 of the numbered list. Step 3 is 'Get an account', which includes a link to 'Register your account' and a note that a BODS account is required for data download or API use. Step 4 is 'Use download', with a link to 'Download data' and a description of filtering and downloading datasets. Step 5 is 'Use API', which includes links to 'View developer documentation', 'Try API service', 'Get my API key', and 'Case studies', each with a brief description of the resource.

- 3 Get an account**
  - [Register your account](#)  
A BODS account is required to download data or use the API.
- 4 Use download**
  - [Download data](#)  
You can filter or download all dataset published on BODS and additional data we provide.
- 5 Use API**
  - [View developer documentation](#)  
We recommend checking the developer document to find out the parameters available.
  - [Try API service](#)  
You can investigate the different API parameters present on BODS. This should inform you better on how to utilize the API for your particular use case.
  - [Get my API key](#)  
Once you have registered you will be given an API key.
  - [Case studies](#)  
Helpful cases studies are provided to inspire and support your API data journey on BODS.

# API Updates 2/3

A registered consumer of BODS API will access the API service through the 'guide me' page and use the new parameters of the location data and Fares data APIs

- Add new query parameter of 'vehicleRef' to the AVL API

**SIRI-VM Data feed** Interact with SIRI-VM datafeeds

GET /datafeed

Returns all published datafeeds

**Parameters** Cancel

Name	Description
<b>boundingBox</b> array[number] (query)	Limit results to bus location data with vehicle position within the rectangular boundingBox you set using co-ordinates. [minLongitude, minLatitude, maxLongitude, maxLatitude]
<span>Add item</span>	
<b>operatorRef</b> array[string] (query)	Limit results to bus location data with the specified operatorRef. The National Operator Code is often used as the input for operatorRef. Comma separated list of values can be used for querying.
<span>Add item</span>	
<b>vehicleRef</b> string (query)	Limit results to bus location data with the specified vehicleRef.
<span>vehicleRef - Limit results to bus location data</span>	



# API Updates 3/3

A registered consumer of BODS API will access the API service through the 'guide me' page and use the new parameters of the location data and Fares data APIs

- Add new query parameters of 'limit' and 'offset' to the Fares API

**Data set** Interact with fares datasets ✓

GET /dataset Find fares

Returns all fares datasets

Parameters

Cancel

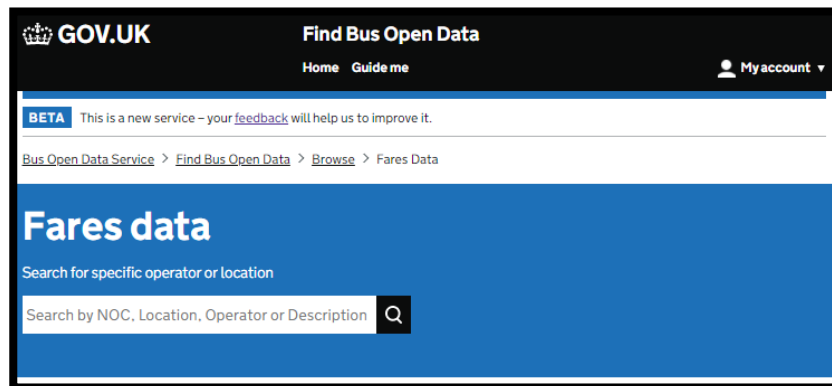
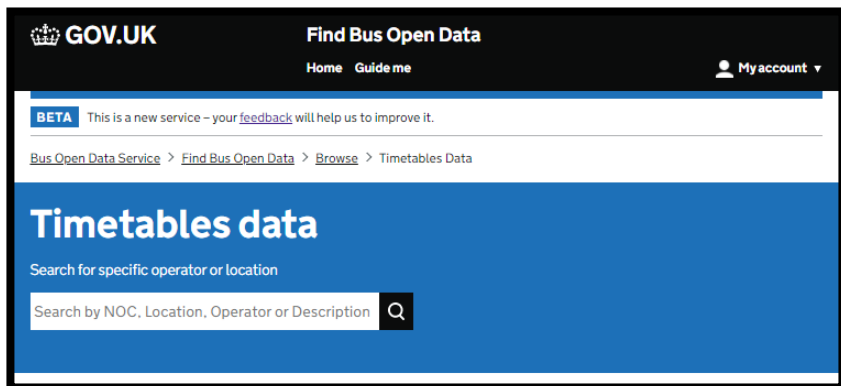
Name	Description
<b>NOC</b> array[string] (query)	Operators can operate using a single National Operator Codes (NOC) or have multiple NOC associated with it. Download <a href="#">data catalogue</a> to see the relationship between operators and NOC within the service. Input a comma separated list of NOC to limit results to the operators associated with the NOC provided.
<div>Add item</div>	
<b>status</b> string (query)	Limit results to data sets with the specified status string, accepted values are published, inactive.
<div>--</div>	
<b>boundingBox</b> array[number] (query)	Limit results to fares data sets that contain information for the area within the rectangular boundingBox you set using co-ordinates [minLatitude, maxLatitude, minLongitude, maxLongitude]
<div>Add item</div>	
<b>limit</b> integer (query)	The maximum number of records to return
<div>limit - The maximum number of records to rel</div>	
<b>offset</b> integer (query)	Return results that match the query starting from the specified offset. e.g. &offset=10&limit=25 returns results from 11 to 36
<div>offset - Return results that match the query s!</div>	



# FBODS Browse Page Updates 1/2

Data consumers can search for data sets/feeds on BODS APIs. If data matching the results would be displayed, otherwise then the existing results will continue to be displayed

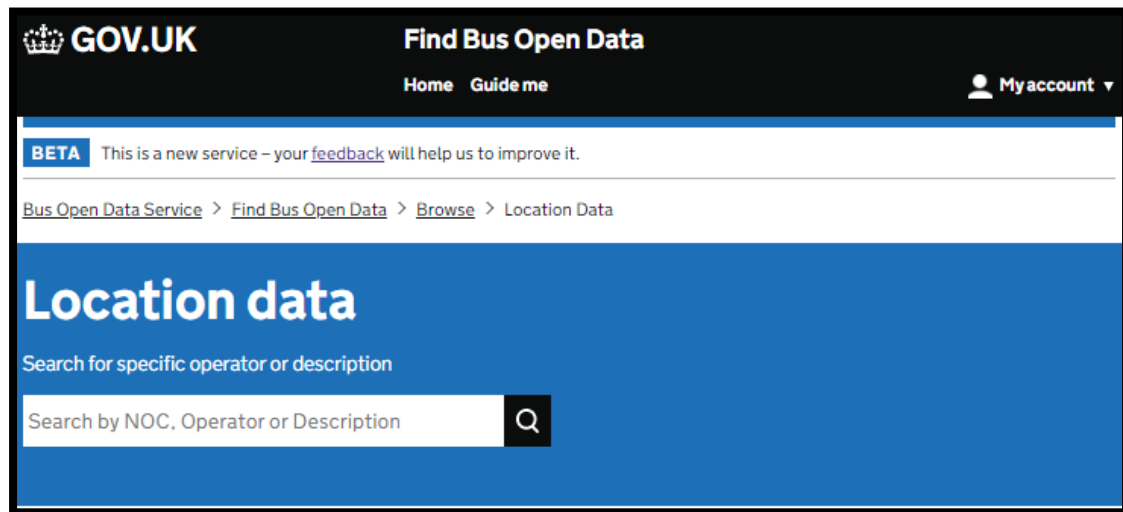
- Timetable and fares data can be searched by NOC, Operator name, Location, and Description in the 'Browse data' page



# FBODS Browse Page Updates 2/2

Data consumers can search for data sets/feeds on BODS APIs. If data matching the results would be displayed, otherwise then the existing results will continue to be displayed

- AVL data can be searched by Operator name, NOC, and Description



The screenshot shows the 'Find Bus Open Data' page on GOV.UK. The header includes the GOV.UK logo, the page title 'Find Bus Open Data', and navigation links for 'Home' and 'Guide me'. A 'My account' link is also present. A blue banner at the top indicates the service is in 'BETA' and includes a feedback link. Below the banner is a breadcrumb trail: 'Bus Open Data Service > Find Bus Open Data > Browse > Location Data'. The main section is titled 'Location data' and features a search bar with the placeholder text 'Search for specific operator or description' and 'Search by NOC, Operator or Description'. A search icon is located to the right of the search bar.



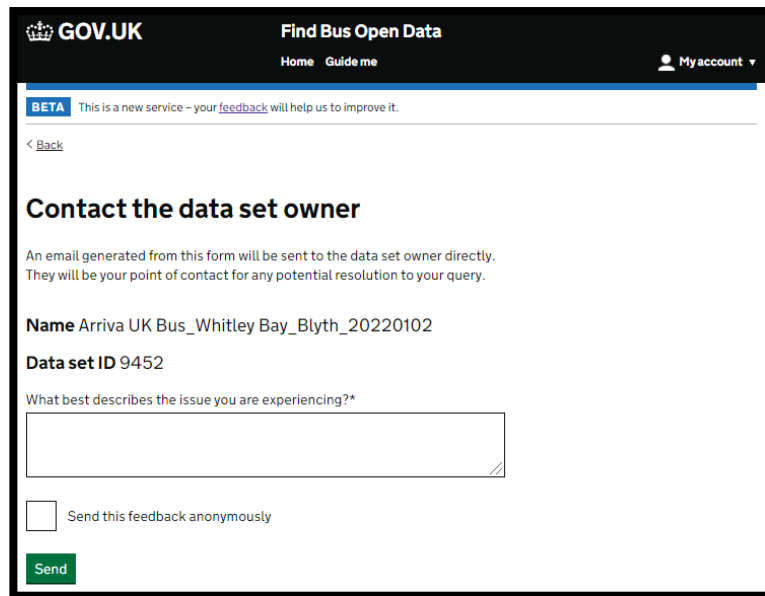
# Individual Data Set Page Update

Add section will be added to help data consumers who are already logged in to provide their feedback

- Add 'Noticed issues with this data set?' at the bottom of the individual data set page for all data types

**Noticed issues with this data set?**

[Contact data set owner directly](#)



The screenshot shows the 'Find Bus Open Data' page on GOV.UK. The page has a dark header with the GOV.UK logo, 'Find Bus Open Data' title, and links for 'Home' and 'Guide me'. A 'My account' link is in the top right. Below the header, a blue banner indicates a 'BETA' service. The main content area is titled 'Contact the data set owner' and includes a brief explanation of the form's purpose. It displays the data set name 'Arriva UK Bus\_Whitley Bay\_Blyth\_20220102' and ID '9452'. A text input field is provided for describing the issue, followed by a checkbox for 'Send this feedback anonymously' and a green 'Send' button.

**GOV.UK** Find Bus Open Data  
Home Guide me My account

**BETA** This is a new service – your [feedback](#) will help us to improve it.

[< Back](#)

### Contact the data set owner

An email generated from this form will be sent to the data set owner directly. They will be your point of contact for any potential resolution to your query.

**Name** Arriva UK Bus\_Whitley Bay\_Blyth\_20220102

**Data set ID** 9452

What best describes the issue you are experiencing?\*

☐ Send this feedback anonymously

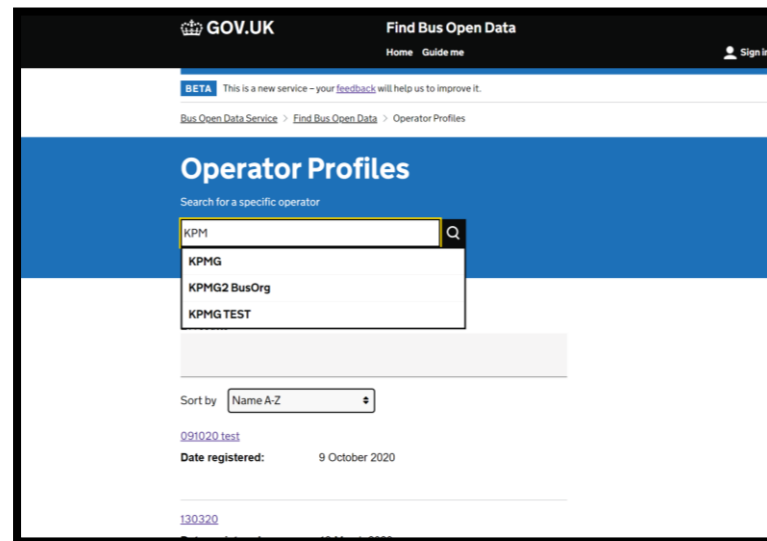
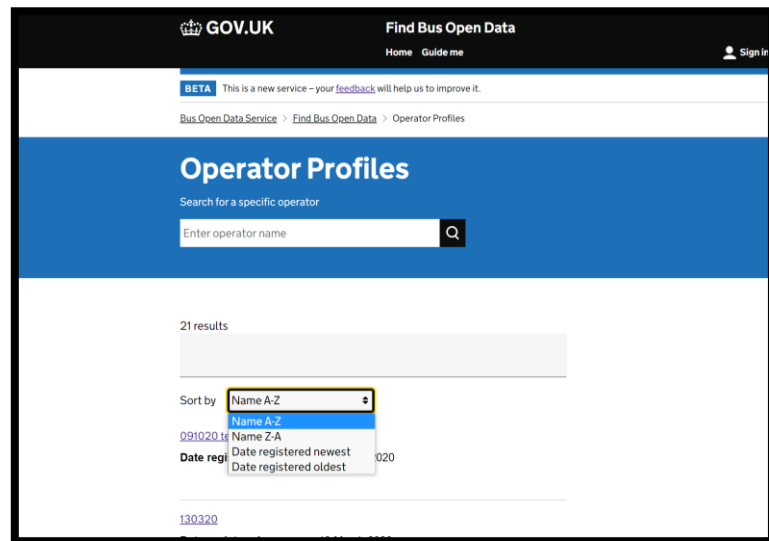
**Send**



# Operator Profiles 1/3

A 'View operator profiles' link has been added to FBODS home which links to a searchable list of operators who are registered on BODS

- Consumers will be able to browse, search and sort through all the operators registered on BODS via a 'View operator profiles' link on FBODS home:



# Operator Profiles 2/3

Operator profile pages will provide information about the operators and their data and access to other FBODS functions.

- Consumers can see the numbers of datasets/feeds and see how many are BODS compliant.
- Users will be able to directly access the operators' timetables, location and fares via browse or, when signed in, via their API feed URLs.

The screenshot shows the GOV.UK 'Find Bus Open Data' page for operator E2E 070120. The page includes a header with the GOV.UK logo and navigation links. A 'BETA' banner is present. The breadcrumb trail is 'Bus Open Data Service > Find Bus Open Data > Operator Profiles > E2E 070120'. The operator name 'E2E 070120' is prominently displayed with links to 'Contact E2E 070120' and 'Download all data'. Below this is an 'Organisation detail' table.

Organisation detail	
Long name	E2E 070120
Date registered	7 January 2020
Licence number	PD4563757
National Operator Code	E2E070120 NOC1 NOC2

This section displays statistics for 'Timetables data'. It includes links to 'Browse Timetables data', 'Location data', and 'Fares data'. The statistics are as follows:

Category	Value	Additional Info
Timetables data - Data sets	421	
Timetables data - Bus routes	903	
Timetables data - Non-compliant	0	<a href="#">What does this mean?</a>
Location data - Data feeds	45	
Location data - Non-compliant	0	<a href="#">What does this mean?</a>
Fares data - Data sets	33	
Fares data - Total number of fares products	1008	
Fares data - Non-compliant	0	<a href="#">What does this mean?</a>

Below the statistics is a 'Use API' section with a link to 'Register or sign in to use this operator's data.'

This section shows the 'Timetables data API feed URL'. It includes a link to 'Browse Timetables data' and a 'Copy' button next to the URL.

Timetables data API feed URL

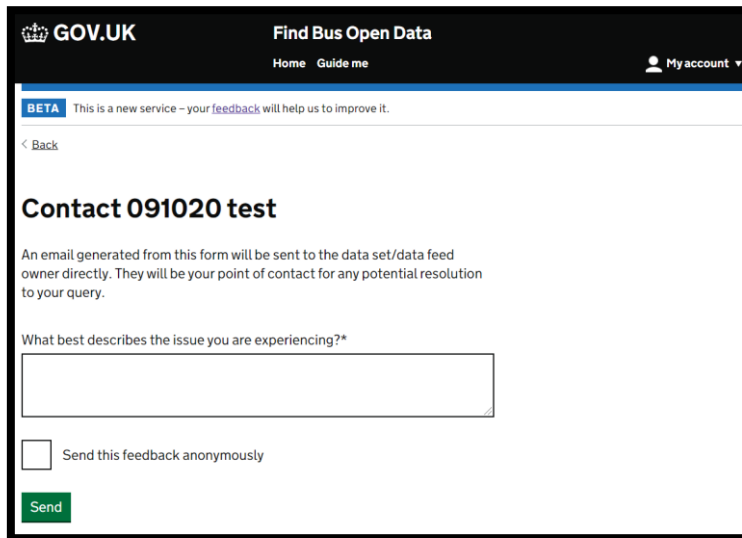
```
https://data.test.bus-data.dft.gov.uk/api/v1/dataset/?noc=E2E070120,NOC1,NOC2&api_key=ff7f08d7096a6e7dce7d78cedb682f1feff8bb04
```



# Operator Profiles 3/3

Operator profile pages will provide information about the operators and their data and access to other FBODS functions

- Consumers when logged into FBODS will be able to contact operators directly from a link on the operators profile page and will be able to do so anonymously.



The screenshot shows a GOV.UK web page titled "Find Bus Open Data". The header includes the GOV.UK logo, the title "Find Bus Open Data", and navigation links for "Home" and "Guide me". A "My account" link with a dropdown arrow is also present. A blue banner indicates a "BETA" service with a feedback link. Below this is a "Back" link. The main heading is "Contact 091020 test". The text explains that an email generated from the form will be sent to the data set/data feed owner directly, serving as a point of contact for potential resolution. A text input field is provided for the user to describe the issue. Below the input field is a checkbox labeled "Send this feedback anonymously". At the bottom is a green "Send" button.

GOV.UK Find Bus Open Data

Home Guide me My account

**BETA** This is a new service - your [feedback](#) will help us to improve it.

[Back](#)

### Contact 091020 test

An email generated from this form will be sent to the data set/data feed owner directly. They will be your point of contact for any potential resolution to your query.

What best describes the issue you are experiencing?\*

☐ Send this feedback anonymously

**Send**



# Download All Updates 1/1


The functionality of download all has been improved as part of both releases

- R1.16.0 will:
  - Allow users to download timetables datasets in TransXChange format by region.
  - Change the file structure of timetables data zip to group files by operator folders.
  - Enable users to access download all from operator profile pages.
- R1.16.1 introduces a download all link for TfL SIRI-VM location data

## All location data

### Download file

Download a snapshot of all live bus locations at a point in time.

**Format:** SIRI-VM 

**Mode:** Bus

**File type:** ZIP file

**Update frequency:** Every 10 seconds

[Download all bus location data in SIRI-VM format](#)

[Download all bus location data in GTFS RT format](#)

[Download all bus location data from Transport for London \(TfL\) only in SIRI-VM format](#)

[Bus Open Data Service](#) > [Find Bus Open Data](#) > [Operator Profiles](#) > Blackpool Transport

## Blackpool Transport

[Contact Blackpool Transport](#)

[Download all data](#)

### Download file in TransXChange format

You can download all the timetables data cached on the service as of today by clicking the link below. Timetables data is provided in a TransXChange format within a compressed ZIP file.

[All - Download timetables data in TransXChange format](#)

[All - Download BODS Compliant only timetables data in TransXChange format](#)

[East Anglia - Download timetables data in TransXChange format](#)

[East Midlands - Download timetables data in TransXChange format](#)

[London - Download timetables data in TransXChange format](#)

[North East - Download timetables data in TransXChange format](#)

[North West - Download timetables data in TransXChange format](#)

[Scotland - Download timetables data in TransXChange format](#)

[South East - Download timetables data in TransXChange format](#)

[South West - Download timetables data in TransXChange format](#)

[Wales - Download timetables data in TransXChange format](#)

[West Midlands - Download timetables data in TransXChange format](#)

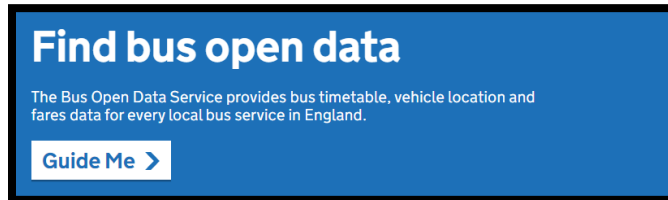
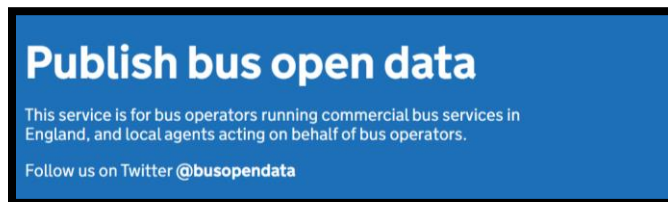
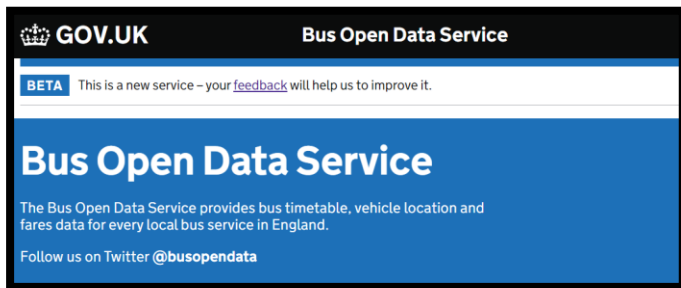
[Yorkshire - Download timetables data in TransXChange format](#)



# Overall UI/UX Changes 1/2

Widespread changes to the BODS UI will make it easier for users of FBODS in particular to explore, understand and use the service.

- Addition of a banner to pages that:
  - On BODS and PBODS home provides a summary of the service and a link to its twitter
  - On FBODS home provides a summary of the service and a prominent link to guide me
- Updates to data set/feed details pages to include more relevant information, guidance and links





# Overall UI/UX Changes 2/2

## Widespread changes to the BODS UI will improve consumer experience on FBODS.

- Addition of clickable modal popups to FBODS that describe:
  - The different data formats of TransXChange, GTFS, Siri-VM and NeTEx on the browse and download all pages
  - The concepts of BODS compliance and data quality checks on dataset/feed detail pages

### [Timetables data](#)

Timetables data provides details of a specific number, day, date, route and time. You can download all the timetables data cached on the service.

**Format:** TransXChange  GTFS 

### TransXChange

[Close](#)


TransXChange is the UK nationwide standard for exchanging bus schedules and related data. It is used for:


- The electronic registration of bus routes
- The Traffic Area Network
- The exchange of bus routes with other computer systems such as journey planners and vehicle real-time tracking systems

TransXChange is part of a family of coherent transport related XML standards that follow GovTalk guidelines. The latest transxchange profile used on BODS can be [found here](#).

BODS compliant  
data 

Yes

Data quality  
report 

Data quality 96%  
 AMBER

[View data quality  
report](#)

### Data Quality Report

[Close](#)

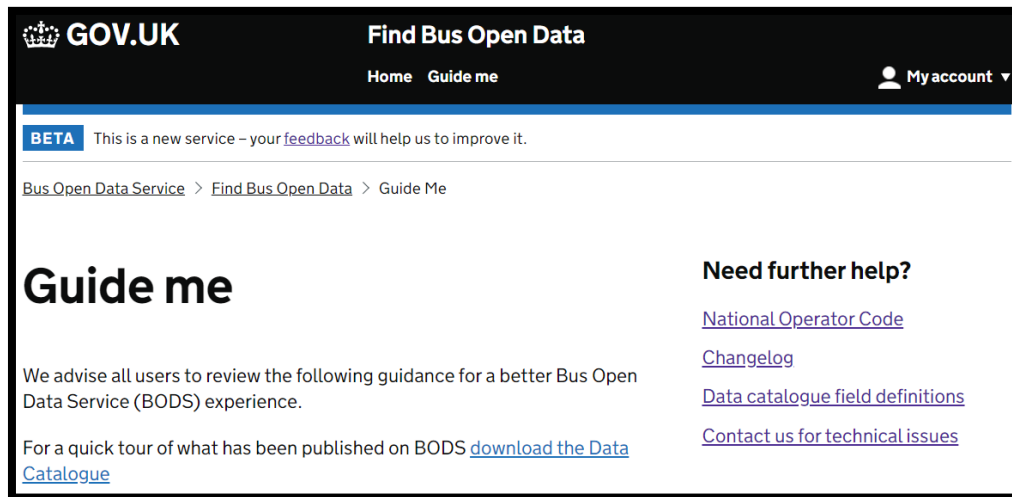
Beyond the usual validation check for the TransXChange 2.4 v1.1 PTI, BODS does additional checks to ascertain the quality of the data and assigns a subsequent score to the data set. More information on the data quality checks can be [found here](#).



# Guide Me Page 1/1

A 'Guide Me' page has been added to FBODS which can be accessed via the header on every page of FBODS

- FBODS users will be able access a comprehensive list of usage guidance and function descriptions with links



The screenshot shows the GOV.UK 'Find Bus Open Data' page. The header includes the GOV.UK logo, the title 'Find Bus Open Data', and navigation links for 'Home' and 'Guide me'. A 'My account' dropdown menu is also present. Below the header, a blue banner indicates a 'BETA' status and mentions a feedback link. The breadcrumb trail shows the path: 'Bus Open Data Service > Find Bus Open Data > Guide Me'. The main content area is titled 'Guide me' and contains text advising users to review guidance for a better BODS experience. It also provides a link to 'download the Data Catalogue' for a quick tour. On the right side, there is a 'Need further help?' section with links to 'National Operator Code', 'Changelog', 'Data catalogue field definitions', and 'Contact us for technical issues'.

**GOV.UK** Find Bus Open Data

Home Guide me My account

**BETA** This is a new service – your [feedback](#) will help us to improve it.

[Bus Open Data Service](#) > [Find Bus Open Data](#) > Guide Me

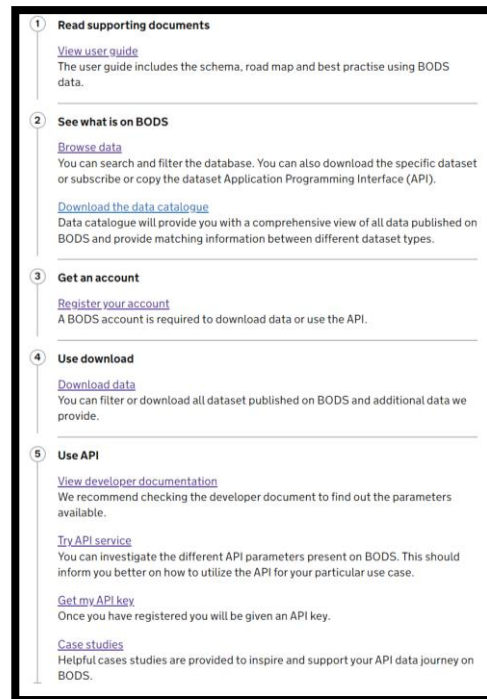
## Guide me

We advise all users to review the following guidance for a better Bus Open Data Service (BODS) experience.

For a quick tour of what has been published on BODS [download the Data Catalogue](#)

### Need further help?

- [National Operator Code](#)
- [Changelog](#)
- [Data catalogue field definitions](#)
- [Contact us for technical issues](#)



The screenshot shows a numbered list of steps for using BODS. The steps are: 1. Read supporting documents (with a link to 'View user guide'), 2. See what is on BODS (with links to 'Browse data' and 'Download the data catalogue'), 3. Get an account (with a link to 'Register your account'), 4. Use download (with a link to 'Download data'), and 5. Use API (with links to 'View developer documentation', 'Try API service', 'Get my API key', and 'Case studies').

- 1 Read supporting documents**  
[View user guide](#)  
The user guide includes the schema, road map and best practise using BODS data.
- 2 See what is on BODS**  
[Browse data](#)  
You can search and filter the database. You can also download the specific dataset or subscribe or copy the dataset Application Programming Interface (API).  
[Download the data catalogue](#)  
Data catalogue will provide you with a comprehensive view of all data published on BODS and provide matching information between different dataset types.
- 3 Get an account**  
[Register your account](#)  
A BODS account is required to download data or use the API.
- 4 Use download**  
[Download data](#)  
You can filter or download all dataset published on BODS and additional data we provide.
- 5 Use API**  
[View developer documentation](#)  
We recommend checking the developer document to find out the parameters available.  
[Try API service](#)  
You can investigate the different API parameters present on BODS. This should inform you better on how to utilize the API for your particular use case.  
[Get my API key](#)  
Once you have registered you will be given an API key.  
[Case studies](#)  
Helpful cases studies are provided to inspire and support your API data journey on BODS.

# Consumer Usage Monitoring 1/1

More information is being gathered on how consumers use BODS to help guide future service improvements.

- Users must now sign in to consume data on BODS via the APIs or download all.
- Account creation now gathers the user's area of interest in terms of regional or national data.
- During account creation, users now log their intended use as one of 6 categories alongside a short text description for more detail. They can also opt in to be contacted about usage.

What best describes your intended use?

To help us to continuously improve the service, please provide details about your intended use of the data.

☐ App

☐ Research

☐ Digital Signage

☐ Website / Portal

☐ Local Transport Authority

☐ Personal interests or other

Please provide a short description about your intended use below.

What does your product/service do? Who is it for?

Which areas of data are you interested in?

☐ National

☐ Regional, please provide specific location(s) if you can

Are you happy for DfT to contact you to discuss how you're using the data?

This helps us to continuously improve the BODS service and make it usable for consumers like yourself

☐ Yes ☐ No

# End of Summary (R1.16.0)

