PTIC meeting 27 May 2021

You Tube video link: https://youtu.be/qlGPPvWKxDM

Video timings for the start of each agenda item are provided below.

Actions in red text.

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Notes and Actions from the 27 May 2021 meeting Next meeting 08 September 2021 1400-1600, Online

PTIC website: http://pti.org.uk/



Public Transport Information Coordination

Attendees:

Ian Barratt, Lancashire County Council

David Batchelor, Ticketer

Mike Baxter, Staffordshire County Council

Amy Brown, Traveline

Graham Browne, WYCA

John Carr, ATCO

Nic Cary, Waysphere

Alex Cranton, Systra

Tony Davies, Trent Barton

Josh Goodwin, bustimes.org

LMG?

Kim Harper, Durham County Council

Dr J Harrison, Thoughtworks, Services Designer supporting DfT

Kelyani Homar-Desai, Basemap

Mike Jacklin, Ito World

Sean Jackson

Teresa Jolley, DEFT153

Mark Jones, EPM Bus Solutions

Nick Knowles, Independent

Angharad Murray, Suffolk

Lee Murphy, North Somerset

Steven Penn, TfN

Tim Rivett, RTIG

Rebecca Roe, SYPTE

Alex Ross, Passenger

Dan Saunders, Basemap

Chris Sherry, Pasesnger

Peter Stoner, Ito World

Mark Taylor, Staffordshire County Council

Yan Tsui, DfT

Rob West, Elydium

Keith Willis, React

Julie Williams, Traveline

Di Wright, Connect Tees Valley



1. Introduction

2. Notes of last meeting 22 February 2021

3. Bus Open Data Digital Service (3:30 - 49:33)

3.1. Routes & Timetables (3:30 - 13:20)

Yan Tsui from BODS team.

https://pti.org.uk/system/files/meeting_files/papers/20210527%20PTIC%20Speaker%20Slides.pdf

Summary:

Policy-wise:

- Bus registration, and how to proceed with digitalising bus registration
- Updating the implementation guidance
- Including occupancy data within the guidance
- Testing the data quality validator for TXC 2.4 profile, expect to be released by end of May 2021.

Operators publishing data:

- Big 5 operators publishing their data
- 219 out of 322 users of Ticketer ETMs publishing AVL data
- focusing on strategies for the team,

Other updates:

- Following up with around 40 operators to explore how we can help them start publishing regularly.
- Disruption messaging tool fully novated to DfT, and plan to have consumer API to be available via BODS in November this year.
- Exploring options for predictions data being made available via BODS later this year.

Questions / discussion

School service operators being chased when shouldn't be

Lancs: re: chasing operators who are not registered for BODS, thre seems to be a gap in knowledge or understanding, as I've had several instances where operators who are solely running school services on behalf of LAs, are being chased for registering to BODS when they don't need to. This is confusing for them, and we are trying to reassure them they don't need to.



Action

Yan: think this is being explored; could you follow this up via email.

Tim: a couple of example operators could be helpful too. Yan shared email in conference chat box.

Routes and timetables validator improvements just gone live - go check

Tim: next phase of routes and timetables work is implementing the data validator, went live just the other day. Operators will start to see more feedback on their data quality, and its worth encouraging them to have a look at it again, as it might be more helpful.

Peter (Ito): there is still scope for feedback on it, and whether it is as fine-tuned as it could be. Quite a number of issues in there, that operators needs to encourage working with their suppliers to resolve. In some cases, there is confusion as to whether it is the operator or the software supplier who needs to comply, so more dialogue between both would be useful.

Mike Baxter: what extra checks is the validator providing compared to previously? Is there a summary for this.

David Batchelor: experience of it from Ticketer perspective whilst testing:

- Used to be a data quality report only, and in test, used to bring up more than it did in live. e.g., Non-NaPTAN stops.
 - Warning of speed between two points if one of the NaPTAN stops is wrong.
 - Warning of it thinks you have missed a stop (based on patterns from similar routes.
- Doesn't like No Block, and tells the operator their bus won't run if they don't have a Block
 in. Hopefully this has been modified in the live to say Blocks don't need to be in until
 October.
- PTI Observations spreadsheet which can be exported. the PTI one gives details of which fields have got wrong. e.g. service definitions where license numbers not updated yet, because we are waiting to do this once Fares requirements are clearer. not filled in yet, but they haven't been asked to do it yet cos aligning with need for fares.

3.1.1. TransXChange PTI Profile (13:20 - 16:27)

PTI profile document is due for an update soon (summer 2021) to correct some minor errors. Will also include info on how validator is testing for that requirement. e.g., schools - making sure



length of name is appropriate. Hopefully easier for people to review a single document and see what needs to happen.

Plan is to have a session going through the document, to make sure that really does the questions people have still got. Want to try and make this one the last update for a while yet, to enable implementation. Look out for an invite.

David Batchelor: Scottish bank holidays?

3.2. Location Data (16:27 - 23:23)

Update to SIRI-VM Profile document to be expected over summer sometime, taking into account comments received so far.

Peter Stoner: worth looking at ABODS service, as have now tightened up between no. of estimated journeys and numbers actually appearing. Still working on it, but will give more stable results.

Julie: data used in ABODS for scheduled. Some of the operators are comparing their own data against ABODS. Its sometimes way out. We believe some of the scheduled data in ABODS is coming from TNDS? If this is true, then might explain the issues. Scheduled data coming from LAs when you do your ABODS presentation, would be really helpful to explain what data is being used - really helpful.

Tim: there were recent sessions on ABODS, and this has been highlighted to people on those calls. Where data isn't in BODS then until the end of June, TNDS data is being used, so that operators can see something.

Then (from July) will remove TNDS data, so it will then only be BODS routes and timetable data.

Julie: thanks - team on the call didn't know that.

Tim: ABODS = Analyse Bus Open Data Service, and it is the new analysis services sitting on top of the BODS platform. A couple of launch webinars, and more in June and July. Can sign up through the RTIG Eventbrite page. Recording available here: https://www.rtig.org.uk/abod.

3.3. Fares (23:23 - 49:33)

Stephen Penn update on Fares work.

https://pti.org.uk/system/files/meeting files/papers/20210527%20PTIC%20Speaker%20Slides.pdf

Summary points:

- Fares data lagging behind TT and VM. Most of the data has been supplied by smaller operators, using the Create Fares Data service (with two datasets from Ticketer) of small fragments of products - not full datsets
- For rest of 2021, expect operators to be providing NeTEx fares data from Vix and Ticketer via the Creates Fares Data service. Don't think Init yet have a service for their operators (NX WM).

We've hit a bit of a blocker with the supply of NeTEx that we need. Big operators were worried it didn't reflect complexity of point-to-point fares. e.g., FareZone - group stops, and price between two stops is not necessarily an accurate reflection of price. The point in the stage that the alighting and boarding stops are located also affect the price, and this was not reflected in the traditional zone to zone structure that the Create Fares Data tool was using.

Ticket machine suppliers are looking for a solution to this within the Profile. Can create fare zones for boarding and alighting at each stop in NeTEx, so using the Boarding and Alighting fares might be an option to manage this.

Other issues:

- capped products
- multi-operator tickets (who is responsible for supplying the data)
- through fares (including circulars, complex routes)
- subscription based products
- publication format (big files? one file per product? Vix and Ticketer have different approaches to this, do these need to be aligned?)

Next steps:

• received test datasets from Stagecoach and Vix.



- Stagecoach looking to publish their full dataset for England, Scotland and Wales in the next few weeks.
- Ticketer functionality already there to export NeTEx but only really work with simpler fare structures. A couple have done this (Trent Barton and Reading bus?)

Create fares data service progress:

- Discovery in April looking at products needed roadmap for summer period
- Recognised it is hard to use the Create Fares Data tool for managing a lot of fares data.
 We are working up a data management hub to apply global settings etc, to avoid having to repeat this, every time. also ability to export.

Next steps:

- work with operators on Init and Flowbird to optimise for their use.
- Bulk import of existing fare data from spreadsheets etc.
- Once Vix and Ticketer start to publish on the BODS platform, we will be conducting user research over the summer time to explore that further - to engage with users to make sure it can be used.

Questions / discussion

How does Fares Data align with BSIP reporting requirements?

Nic: how does this work with BSIP. DfT promoting this, has a extensive requirement to report on operator fares, but the timetable of this doesn't seem to square with this (BSIP live October this year).

Stephen: this fares data is for public information. This data is not being designed for performance reporting on BSIP.

Nic: but there is s specific performance reporting requirement on single operator fare volumes in the BSIP. Can't see the data will be available to do that.

Tim: I think the BSIP requirement is the number of products sold of each type, to establish if there is best value - operators selling loads of singles not more cost-effective day returns for example. Volumetric, but fares for BODS for people to plan a journey and know how much it is going to cost in advance.

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Nic: I get that, but the 2 are surely linked? BSIP requires it to be monitored. Might introduce new fare types through time. but where the authority gets the data required for the BSIP from.

Tim: that would have to be from an operator, as never seen any plans for the this via the fares data.

Nic: think you could reverse engineer it, but if operators are sole source of that data, then surely a risk they don't update it etc?

Tim: not quite sure what you are expecting the fares service to do?

Nick Knowles: confusing two different things here - there's the structured definitions of fares, and then the actual transaction data of people buying those fares. Summarise and analysing this transaction data would give you what you are looking for, but that's a huge undertaking - there's about 2bn bus journeys in London a year, that is a huge thing.

Nick Knowles: to get to 3rd party independently viable, might not be cost effective.

Nic: Ticketer might have answer / route through on this?

John Carr: Nic is right, difficult situation we are all in. See this is a similar to fares exchange project years ago. In terms of the BSIP, there is an awful lot of material that the DfT expects to be appears to be available by October - don't think there is a chance of having all of that available by then. So as ATCO we need to have a meeting with DfT and get some further informal guidance on how far we go. DfT suggesting that evidence you are working on it will be good enough, its the end of year date they want to see more concrete progress.

Action: John to take back to ATCO board.

NeTEx is complex for developers to understand - any plans to assist?

Alex Ross: On developer side of things:



- 1. user research into using NeTEx. Think this should have come earlier on, as its complex, and for developers it will be a hard uphill battle, so is there any consideration for a simpler format for developers to use?
- 2. making the actual fares simpler? PTIC and DfT opportunity for us to help guide operators to produce simpler fares. Reading e.g., we are working with them to help do this.

 Operators have a fare structure that works internally, not necessarily the users, and the focus needs to be on the user for this.

Stephen: we have done user research on NeTEx in the past. At the time they were more concerned with getting the Timetable and VM data sorted first. So research starting now, because we now have NetEx data to give to operators.

In tersm of simpler data format, not talked about yet. People want GTFS, but its really a non-starter as it doesn't give what's needed.

Nic Knowles: accept that NeTEx is complex to learn and study, but it is inherent in the domain. Even if you get away with simple product definitions, the combination of products and new capped multi-modal products means you can't represent all this simply. The goal is not just prices, which is all GTFS does, but GTFS does not specific precisely what you are pricing. The only way to address that is small atomic components you can combine.

- Could try to restrict the ways things can be combined, which we've attempted to do in the profile.
- Should also be developing material and training to explain the concepts and how stuff works for developers to understand

At the end of the day, fares are no more complex than a TXC timetable representation, but the idea of a standard general purpose for fares is really new. So therefore even more important to provide better training and support materials.

Understanding whether TNDS or BODS timetable data has been used is critical for usJulie: Initially works product for fares tools works with TNDS, now it is being novated to BODS, there is a plan for it to move from TNDS to BODS? Is there a timeline for that?

Stephen: we built a choice option for user to choose either TNDS or BODS.

Julie: yep, but we need to know which dataset has been used to match it with, so knowing which dataset has been used to match the data against would be helpful. (TNDS / BODS).

Stephen: when we solve the line ID issues we will explore Source data issue too.

4. NaPTAN Project (49:33 - 1:10:35)

Dr J: update slides (shown at Traveline the other week) link provided from Dr. J

Know that we need to connect with sea ferries, rail, trams and airports too, as data in there we need to connect with. also new type of systems that might need to come into NaPTAN too.

Progress:

- just finished horizon 1 and ready to go into private beta.
- working on horizon 2: identification, verification, authentications, permissions and upload. Need to run both systems at the same time, important to manage transition and migration from one to the other.
- Phase 3 'What's next'? working through this with DfT right now. Considering the next priorities considering things like: API? Data quality? pressure to switch off the old site? Move NTPG across? Accessibility needs to come across? Schema changes? Need to make sure there is funding so this doesn't all fall on LAs. Visualisation. Discussion with Street Manager on this. We have a vision of all these systems (NaPTAN. Street Manager etc) talking to each other using APIs etc.
- Did a lot of public meetings through Jan March 2021. Big take-home point Stop CSV files. We have stopped doing data processing in the new system. Raw data is presented out the other end in CSV format, and we have uncovered places where the current NaPTAN system has been doing some work to manipulate or change data. We need to understand what has been happening in the old NaPTAN, tracing exactly what is going on.
- Communications: email with updates clarification on what we mean by responsible, and list of June / July meeting dates. LTA 'Responsible meeting, about 46 people attended.
- Meetings coming up in June, Jul and Aug. In August will start talking about migration planning, and we expect to have enough functionality to know what needs to happen around this...
- Currently trying to explore who is responsible for the data. Accounts are being shared
 across people. Some account names are handed around / down to different; e.g., the
 person left and handed over the account, as admin of of accounts has been tricky in
 current system. We are trying to make sure we know who the people are, and
 verification we know who they are.



Discussion and questions

Q: is the Ito world tool carrying on for forseeable?

A: we are looking at how it fits into ecosystem,

- a. Data quality business rules applied) and
- b. visualisation of maps and stops.

Ito will be there until our migration plan is sorted and until we have replaced the functionality

Private beta: slide share with prototype showing progress so far

Download journey:

On landing page, you have a choice of accessing NaPTAN data nationally, or by local authority area:

- search by name / region / ATCO code for LAs,
- download in CSV or XML format

Doing data quality checks file by file to make sure they are what you need:

• e.g., for stop-stop csv nationally, we found through analysis that one of the files has not worked for a very long time.

Phases:

- uploading NaPTAN data (don't need to change this yet, tried to decouple so we can focus on the quality first, before trying to build the new upload part)
- validate
- output
- download

Currently about 5 minutes for this process, trying to speed this up, retain accuracy and gives you exactly what you need.

Robustness - slowed us slightly. Security penetration test to try and break the site; 1st June, and once we've passed this test, we'll will make the private beta page public. All users have been invited, with meetings booked with them for progress updates on 8th and 10th June.

Questions / discussion

Alex: I noticed in your demo, there is a button to press to download dataset, will there be an option to provide a link like in the current site (as we import machine to machine)? (Seconded by Mike Baxter - like the ability to have a URL to download to access pre-prepared shortcuts, to save recreating the query each time.)



Dr J: we're looking at how, when you click that, you can copy and use that URL. the URLs will be different to what they were, but we are keen to make the process as easy as possible for you to use.

We need to people to use the private beta as much as possible, and understand how you are using it, and make it as easy as possible for you to do what you need.

Nic: as the person who had NaPTAN on my list at DfT, what you have done is extraordinary

Dr J: wonderful, I will share with the team

5. Accessible Information Regulations (1:10:35 - 1:28:50)

Slides:

https://pti.org.uk/system/files/meeting_files/papers/20210527%20PTIC%20Speaker%20Slides.pdf

Background / history.

Response to Consultation not yet out yet, but is referenced in the bus strategy.

Linked to Bus Services Act, campaign last year 'It's everyone's journey', relaunched this week. Grant for small operators to adopt Audio Visual (AV) equipment in advance of regulation, increased to £3.5m. Paused due to Covid, but opened up again.

Recent announcement on AV - Bus Strategy reminds what is in the Bus Services Act. Regulations due to be out by Summer 2022. Increase of Accessibility grant by £1.5m. Services funded / part funded by grants, will need to have over and above the minimum requirement for wheelchairs / buggies, support of Hearing loops T switch and AV equipment. Backed up by Zero Emissions Bus Scheme announcement (for new buses).

Wheelchair / priority seating - need to hear announcements in both decks and induction loops in priority seating area. for new vehicles but also future retrofit for existing vehicles.



Induction loop should also repeat the AV announcements, and second loop system to help with boarding more effectively (muffled due to perspex screens / mask wearing).

More information to come out. Not unreasonable to expect that what is required of new vehicles to be expected for current vehicles.

RTIG working with DfT exploring with suppliers what solutions are available. Working Group looking at AV equipment options, especially most small operators don't have expert teams - providing support. Presales work preparation. Ongoing support for future.

Standardisation of information to the public, work done on stop names, probably more to do too in future and provide guidance.

Questions / discussion:

Dr. J: Confirmation that NaPTAN project is working with accessibility team on Stop Names, as they want to hold the data in NaPTAN. Trying to make this a business rule, and also that it reduces amount of work for Local Authorities too. Upcoming meeting on Names to explore this and make sure we understand this really clearly - e.g., we found there were a whole load of stops called school

Nick Knowles: that why so important to apply NTPG requirements too. Not just the common name, but locality indicator too.

Dr. J: just looking at another locality option, used by a different mapping system. Some research and thinking around this we wanted to do.

Nick Knowles: if contemplating more radical schema changes, then would make a huge amount of sense to look at Transmodel and NeTEx model as these have a full accessibility model built in. EU work setting out trying to get minimum basic standard. Link populating of NTPG with other sources, because NeTEx is has a generalised model for storing this, and would future-proof you for updating this. This is important.



Dr. J: we don't want to reinvent the wheel. Want to make sure the funding necessary is available to do it in the most effective way, avoiding unnecessary costs for Local Authorities.

Nick K: wider argument for using opens source tools, and getting business model that work for getting in populated is key.

Julie: **question about people knowing that a vehicle or stop is accessible before they travel.**This is not about the accessibility kit on the vehicle itself, its that accessible information is not a mandatory part of the new TXC schema or NaPTAN. Understand that work is going on in Local Authorities to explore what is accessible information, but think we might be missing a trick. In BODS there is no mandatory requirement for accessible stop information. Preparing for travel takes more time for poeple with accessibility needs. Think it might have been dropped somewhere between the two projects.

Tim: Dr J is exploring this with DfT

Dr J: current NaPTAN only copes with TXC 2.1. New NaPTAN is handling up to TXC2.4 but the schema doesn't include accessibility info. Only TXC2.5 can include accessibility data, but no-one is giving us this yet. Will be working with you Julie to build the business case for people needing to plan journeys.

Julie: Transport Direct did an accessible journey planner for Olympics 2012. Rail is getting there, but worried we have missed chance to make progress in the last 10 years. No place to phone up and check about wheelchair space. It needs to be back on the agenda, it is possible, we have done it before. the word accessibility doesn't cover it as it is.

6. Traveline Projects (1:28:50 - 1:47:16)

Updates from Julie on TNDS / BODS / new projects / Plusbus

TNDS: are continuing to provide it. We need it for us, and make it available for free. Currently we have a v2.5 at the moment, and v 2.1. We don't consume 2.1, but others do, including Google. Don't have a plan to stop doing a national dataset, but we might start taking the data from BODS.



Some unclear things are fundamental. Split into multiple timetables, splits into 8-9 files per line. Aggregating this for more useful public use.

Closed school services - taken data from operators (Stagecoach and First), data for them is not the data from BODS. Specifically asked not to use the 2.4 schema, so have been using their TXC2.4 not BODS. Stopped incorporating more of operator data until the 2.1 / 2.4 sorted, which is close now.

New Plusbus project: creating demand for public transport by partnering with big places you can go to, e.g. Blenheim palace - negotiating discounts for people who travel by public transport. Plusbus website provides more details, with promotional features. Travel writer in the Guardian writing it, and the customer experience is the key focus which has been lost in all the technical detail. Telling people how accessible places are, (except bus accessibility right now!). Also curating offers that bus and train operators have in place, and have mined the existing 2-for-1 deals, and included operators negotiated deals. Goes live from beginning of July for at least 2 yrs.

Customer research on what people want Traveline for. What information people want from public transport. Two questionnaires: General one for all people providing public transport services, and also a specific Traveline one. We were going to do a survey, but then Covid-19 came, so we will pick this project up again, and publish the findings so far.

Barcode trials of a Plusbus e-tickets. Part of West Midland Bus Partnership - working with GWR and first Group, and had first successful trial of dummy barcode validated by Ticketer. Also trials in other areas too, including Scotrail and their new franchise. Next step is getting the ticket through formal ticket design / validation. Needs to be recognisable as a ticket type. Not every bus will have a machine that can validate it, needs to be recognisable. Plusbus is a rail ticket that allows bus access. So there is work to do on how to roll out e-ticketing, how we tell retailers about it, engaging with TOCS etc. Some TOCS are thinking of moving other projects under the Plusbus umbrella brand as they see benefits in doing so.

Questions / discussion

Mike Baxter: you mentioned about the data being directly from Stagecoach and First, so does this mean that in TNDS, if I was to query for a First / Stagecoach route in Leicester, the data I would get is the data supplied by the operator, rather than what the LA has put into their system?



Julie: yes, but we have co-ordinated with Local Authorities on this, as they have to stop sending data so we don't have duplicate information in TNDS. We've been testing this through a test version of the Journey Planner in Yorkshire, where we put all of First Group data in it to review and check it was good to go. First Group publish to BODS including closed school services, so had to mark this as not available for public use, which is only possible in TXC2.4.

When you download the TNDS, there is a service list as a txt / csv file, that explains the source of the data; either from LA / operator / BODS (in future).

Mike: so are you getting updates from the operators regularly?

J: they are updating it regularly. First updating frequently - 52 depots, comes to us a single TXC2.4 file per depot. We unpack all that, stitch it back together, convert to single line TXC2.4, and then back into 2.1.

Mike: interested to know mechanism behind it. Observation about lots of versions of data flying around. To manage the Leicester RTI system, I take data from operators or the best place I can get hold of it. Operators are complaining they are having to create multiple versions of data from their scheduling system to send to different places. They should all be the same, but no guarantee there is not complete consistency between the different systems that require TXC files for timetable data. Recipe for complexity and risk of multiple options.

J: Yep, and we still get ATCOCIF from some Local Authorities. Hugely complicated behind the scenes. Benefit of BODS of single agreed format / schema really helpful. That's why we're waiting for stability on BODS before planning next stages and potentially taking data from BODS.

Smaller operator data for Scots will of course not be on BODS.

John Carr: is Plusbus info going to go into BODS?

Julie: good Qu. See from Stephen Penn's update earlier for Fare tool, that they would like to have Plusbus data in it, but we need to remember that Plusbus is a rail fare, so not technically a bus fare. More complex than other ticket types, e.g., Journey Planner rules about pairs of stations; very complex.



John C: always a weakness of Plusbus; its an easy concept to understand, but terribly complex behind the scenes.

Julie: The rail Journey Planner can sell the tickets but they don't know when the buses are. Brand is really easy, but agree complex behind the scenes. First 3 months I'm doing the customer support, so I'm learning a lot!

7. EU Standards development 1:47:16 - 1:57:43)

Nick Knowles update:

Two new work items - proposal for new work, and opportunity to join working groups:

- 1. Control
 - action.https://pti.org.uk/system/files/meeting_files/papers/7.1%20SIRI%20Part%206 %20Control%20Actions%20Proprosal.pdf Circulated work item paper on this. Representation of service in a control room cancelling a journey, short running, changing vehicles due to breakdown. Upstream version of a situation message or alert explaining something has happened, along with operational interest information. Proposal is to have a SIRI service to exchange these control actions. Modelled in Transmodel for some time. Four main types of them, with sub-types. A new Real Time service. Don't know of wide interest in UK at the moment. EU system more useful and run on more sophisticated transfer of information? Tim will follow this under SIRI role.
- 2. **EU** accessibility information for mobility impaired users. Transmodel and NeTEx. There are a wide choice of properties and attributes and info on stops, and purpose of this project is to set down a minimum subset that everyone should use. Specification to be tied into EU requirements, so not essential but still useful for us. Value for us tools to capture this data. Being led by Swiss Railways chap. Opportunity to follow this if of interest.
- 3. **Alternative modes specification for NeTEx and Transmodel.** Happening over the last 18 months to extend cover cycle sharing, car pooling, taxi, rental services. Want to be able integrate conventional journey modes with new modes, to provide a seamless journey planner option. Draft specification now out for review and comments. Schema is completed and available on GitHub site. This gives you an option to see the CEN specification. Get in touch with me / Tim if interested.
 - a. GBFS google type format for cycle sharing data. Car sharing / pooling services used to test this. API doing RT exchange for customer services, but also want to make sure the data points (including specified stops as well as other designated spot / meeting place) can be mapped precisely between GBFS and NeTEx data. Mobility Data organisation is co-ordinating this. Aim is to make sure data is interoperable.

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Next meeting 08 September 2021 1400-1600, Online

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8. Issue Log (1:57:43)

None raised

AOB

None

9. Next Meeting

6th September 2021, 1400-1600