Notes and Actions from the 17 December 2021 meeting
Next meeting 03 March 2022 1400-1600, Online
PTIC website: http://pti.org.uk/

**Public Transport
Information Coordination**

PTIC meeting 17 December 2021
You Tube video: https://youtu.be/EgZEO12nVa0

Video timings for the start of each agenda item are provided below.
Actions in red text
Opportunities to engage/test/feedback in green text

Contents

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Attendees

John Austin, Mobihub Ltd
David Batchelor, Ticketer
Mike Baxter, Leicester City Council
Leon Byford, TfL
John Carr, ATCO
Nic Cary, Waysphere
Tony Davies, Trent Barton
Voirrey Day, Staffordshire County Council
Adrian Falconer, DfT
Josh Goodwin, Bus Times.org
Richard Hall, ITOworld
Darcy Harmer-Manning, Passenger
Teresa Jolley, DEFT153
Mark Jones, EPM
Meera Nayyer, DfT
Triumph Okojie, DfT
Tim Rivett, PTIC/RTIG
Dan Saunders, Basemap
Chris Sherry, Passenger
Stephen Turner, SYPTE
Rob West, Elydium Solutions
Julie Williams, Traveline

Apologies

Peter Stoner, Ito World
Keith Sabin, Shropshire Council
Stephen Penn, Infinity Works

1.0 Introduction

2.0 Notes of last meeting 8 September 2021 (1:45 - 7:40)

- Tim Rivett and John Carr to talk about Fares and BSIP - done
- Fares document discussion, to pick up today
- Offer from Transport API from their Fares tool which is live, if you want to access fares data in a non-raw format

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- Adrian Falconer to talk with Mark Taylor about stop areas and hierarchies - **ACTION: Adrian to follow up and Voirrey Day and Mark Lawrence now that Mark Taylor has retired, and they will pick it up.**
- Electronic Display Interface - do DfT have plans on BODS providing prediction engine? Tim: Discussion still ongoing. RTIG hosted Working Group earlier this week to try and understand what authorities and potential users of prediction engine might want and use it for.
- NeTEx Accessibility profile - pick up today.
- Issues Log - there remains a standing invitation for people to raise issues

Mike Baxter: the session on NaPTAN, are they recorded?
Tim: yep all public open ones have been, plus links to the Mural boards on RTIG website. There are a couple where RTIG have not been directly involved and so not recorded.

Adrian: we had one on the API. Did record it - not sure how we would get it out there.

Offer for engagement: Adrian happy to do a personal 1-2-1 on the API if people wanted that.

3.0 Bus Open Data Digital Service (7:40 - 35:49)

Triumph on BODS Service Release: 7:40 - 15:50

3.1. Routes & Timetables
Slides: https://pti.org.uk/system/files/meeting_files/papers/20211217%20DfT%20Slides.pdf .

Triumph update on BODS Service Release v1.15.0 launched last week, which now includes:
- SIRI VM validation of AVL feeds to standardise location data and improve quality.
- Validation check reports for publishers which shows where data is a) compliant, b) partially complaint or c) non-compliant with the BODS schema. This validation check includes missing fields and other data discrepancies that the provided data feeds may have.
- A dashboard showing a summary visual view of compliance, enabling publishers to share findings back with their SIRI VM suppliers.

Re: Timetables - updates to PTI validator:
- new checks added to ensure that both journeys serve one or more localities in common.

- now able to accept zip files with multiple revision numbers to be uploaded successfully for different times
- validating of non-NaPTAN stops that have been used for more than 2 months. This is part of an effort to ensure the location data is compliant and support high quality data to developers.

Questions and discussion

Nic: legal requirement is on bus operator, but supplier of the data are likes of Ticketer (with no legal requirement to comply) and may not be paid to comply, so how are you getting the pull through from operator to supplier?

Triumph: I'm not close with operators on this, will come back to you with an answer
Nic: thanks, and happy to help and support in any way I can, as I see it might be a block in the road.

ACTION: Triumph and Nic to follow up on this

Tim: I've noticed when update to BODS, there are now service release notes on what's changed - very good and helpful development and very helpful.

Triumph: good to know.

Meera on remainder of BODS updates: 22:00 - 30:50

1.15 release for BODS launched last week, and coincided with NaPTAN release.

For Location data, 19k vehicles providing data to BODS, of a total of approx. 33k vehicles nationwide. TfL published theirs which took total vehicles with published data up to 26k.
Of the updates to the validators in this release, the Location Data validator has had less impact on operators.

Publishers are provided with dashboard showing view of compliance, and so can send these to SIRI VM suppliers for action.

PTI validator perspective - checks for serving one or more localities loaded successfully for different times check for non-NaPTAN stops have been used for more than 2 months
- progress with effort to ensure location data is complaint
- high quality data for app developers and data consumers
- foundation layer for future BODS prediction services
- enhanced passenger experience

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Launch of the SIRI VM Validator seems to have gone well. We had about 19k vehicle providing location data feeds to BODS, out of an approximate total of 33k vehicles nationwide. TfL published all their location data last month, taking vehicle count up to 26k on BODS. Of the 2 validators (for Timetable Data, and Location Data) the Location Data validation has had less impact on operators. About 30 operators who were adversely affected by the launch of the Location Data Validator tool, including National Express (NEX).

From a Timetable data perspective, the validator was first launched in May, was locked in Nov. NEX were first to publish compliant datasets to the new standard. First and Stagecoach about 2/3 of way there with their data. Service code seemed to be causing most of the issues. GoAhead and Arriva currently publishing in compliant format to BODS.

Fares data starting to be published to BODS. Seen that Stagecoach have published all of their fare data, they were the first operator to do that and they have a Fresh release prepared for that. Other operators; First published York and four other datasets. Arriva 11 datasets at last count. NEX set to publish by end Dec 2021 and should have done their Hopper fares by mid-December. NEX are transitioning to a flat fare structure of £2.40 flat fare across the West Midlands - which has simplified the publishing flow. Trying to encourage other operators to think about this, to make the offer to customers easier to understand, taking into account Zones at Multimodal/Multi-operator levels, and then flat fares outside of this. Pleased with progress operators are making from Fares perspective

ABODS launched: Launched corridor functionality for it. Another example of how this can support Local Authorities and operators to partner effectively and ensure they are delivering objectives in the National Bus Strategy and can get access to the data they need, such as average journey times and average speed. Access to this for all Local Authorities for free is a significant step forward.
Disruptions data: user research completed now. The Disruption Messaging Tool is available to the 5 mayoral Combined Authorities. The contract is due to expire at the end of March 2022. A question is what the new contract includes. Should it scale to Local Authorities within the Combined Authorities? And also the other Local Authorities outside of the 5 Combined Authority areas? To Bus Operators too?

Combined Authorities can grant operator access to the Local Authority account. Research has shown there is value in all Local Authorities having access to it. It's important that bus operators have access to it because it is a way of recording cancellation data, more-so in future as we are introducing functionality for cancellations at trip level, rather than just at service level. Work on flexible services as well; there is no clear publishing flow for operators who run these at the moment, so that research has been completed and have a profile now for flexible service data to go

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into BODs. Also working with mobility team in DfT running pilots of flexible services in mostly rural areas, plus some railway stations and serviced organisations.

Questions and discussion
None

3.2. Location Data (15:50 - 20:30)

Tim: we've had profile documentation and advice for routes and timetables for a while, but couple of weeks ago we released draft of profile docs for SIRI VM. Should be no surprises in this as same technical content as discussed over the summer, just put into more of formal document format. **Opportunity to Engage: Welcome feedback and comments on this by Christmas. Q+A call on it on Monday 20th December lunchtime if you want to join. Ask Tim for details if you don't have it.**

Questions and discussion
Mike Baxter: Leicester are introducing a new Journey Planner - being provided by skentgo? (Australian)

They are planning to take SIRI SM feeds from the Vix RTI system and SIRI VM from BODS (to save cost, as free from BODS). Just wondering if you think that is a good idea?

Tim: depends on what you are trying to achieve? SM is good for stops, and VM is good for showing buses on the map, so if this is what you are trying to achieve, then sounds reasonable. Would be interesting to get a write up on this, on what has been done and how you have worked with the data, and how you've worked with BODS to make it happen. **[Promise of Future Action from Mike Baxter!]**

Mike: these are two separate sources, so chances of mismatches I suppose? Maybe until BODS becomes fully mature, there might be some gaps that could mean the two don't tie up as well as they could?

Tim: suspect there will be consistency between both the SM and VM feeds, because you have the same operators as the source. If you have local operators who are not feeding into local Vix RTI system, then they will probably be missing from BODS too. Suspect difference might not be as much as you might think.

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3.3. Fares (20:30 - 21:20, then 30:50 - 35:49)

Tim: Stephen Penn can't join us today, so Tim giving update using notes from Stephen, available here.

Fares data is to be supplied to BODS in NeTEx format,

from 30:50…

Stephen Penn is working on standardisation and development of profile documentation for Fares. The technical document is now nearly ready to release, having discussed process for consultation on it a few weeks ago. Rather than release before Christmas whilst you are working hard on Christmas data and have the SIRI VM document to review, we will release it early in January 2022 and hold Q+A sessions for it in similar way to other BODS projects.

Opportunity for engagement and comment on this Fares documentation in January 2022

One aspect is development of a fares validator tool. User research work is happening at the moment due to be completed at end of Jan, and the team are chatting with likes of Vix, Ticketer, and Transport API, about how the Fares validator might work.

Opportunity to get involved: If you want to get involved in the Fares Validator and profile development work, either contact Stephen Penn direct or go to Tim Rivett who will put you in contact.

Introduction of Fares validator planned for end of March/April 2022, followed by same process as that for TXC validator - starting with soft warnings to get people used to getting their data to fit the profile. Then a hard warning for basic fares, followed by soft warning then hard block for complex fares.

There is a two-stage process on fares, with deadlines being different for simple and complex fares to be included in BODS. 1-2 years scope for hard blocks for all fare types, depending on how quickly people can adapt and be ready with their existing systems.

Questions and discussion

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4.0 NaPTAN Project (35:49 - 39:10)

NaPTAN is not just Bus Stops!!!

Adrian Falconer update on closing down of download for old service.

New service switched on 1st November 2021, running for 6 weeks now. In the last few weeks following additional communications on the API, had quite a few feedback on errors in the files. Session today with the team to explore these and we have discovered that some issues with files that Local Authorities providing us, is because there have been hidden corrections being applied in the old NaPTAN which we weren't aware of. Because they have been hidden, we didn't spot this before. Examples are e.g., all Merseyside stops have an ATCO area code rather than administrative area code. There are four or five similar other issues like this which have been flagged, so we are working through to fix these with the relevant local authorities.

Because of these issues and the fact that we were two weeks behind in the launch of the API, we have moved deadline for closing down old download service to 14 Jan 2022. This won't affect NPTG or the upload to the old service, or the last submissions page - all these will remain accessible.

Action/engagement: If anyone does have issues or concerns with the above, get in touch, so we can help.

Questions and discussion
none

5.0 Journey Planning – "I plan therefore I am" (39:10 - 1:07:34)

John Carr paper: I plan therefore I am

John Carr set the scene:
My complacent thinking was that as there are so many Journey Planners around, they must all be equally good? Frustrated about those on a regional basis that required you to change regions as you move around the country. But I assumed the quality of the results would give the similar results.

But my recent experience using a Journey Planner in London (not the TfL one) showed this not to be the case, as it was out by 30 minutes. It reported that the quickest journey time from Brixton to Euston would be via changing between buses in Brixton, rather than what I assumed would be quicker (and turned out to the best case) - taking the bus to Victoria and the Victoria line to Euston.

I appreciate now that there is a justification for journey planners give different answers, and as an Italian chap explained to me several years ago, it can be a good thing for road traffic journey planners to give different answers, so as to spread the traffic load on across the road network. But I'm not sure if the same logic applies to Public Transport in post-Covid circumstances?

So I contacted Anthony Smith (Transport Focus) and DfT, noting this sort of stuff should be researched and that Transport Focus should be good at, interpreting what the customer wants, rather than what we as transport professionals think customers ought to want/know.

Anthony's view, from his experience, was that many people just set off on their journeys and hope review/adapt their plans along the way, depending on what they come across.

But, what I think DfT want to do is have a journey planner which says: 'Here are the advantages of using particular modes' (like the Transport Direct one did) - and these are the savings in CO_2 over what you would achieve using your private car.'

During a recent ATCO lunchtime session with Supplier (Passenger) we had a good discussion about whether we do really want people to use a journey planner, or go straight to an authority or operator app or website.

John Carr's view is that we want them to go to a Journey Planner first, to get an overview of the choice of options available. Should be able to choose, and distinguish between best route or minimum walking, or minimum changing. I think choice is important.

Our recommendation from that meeting, that everyone seemed to support, was that we have a brief discussion here - to find out if there is a consensus of a problem that needs to be further investigated. If so what are the key features, and what are the resources we need to put into it to address it?

If it is to be taken forward, should be funded by DfT I think. Could seek a sponsor for it but that could introduce a risk of supplier bias.

Question and discussion
Meera: interesting discussion you have started here. We have discussed this internally in DfT. Current approach is for us to intervene where market hasn't been able to meet the requirements. Have seen really good timetable progress, degree of progress with location data, and emerging progress with fares.

We deliberately chose not to intervene in the Journey Planning space at that time, as there are lots

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of suppliers in an open market who can solve this. They were saying to us:' we can build the journey planner, but we need the data'.

Now, we are chatting with BEIS and DCMS about smart data programme, and consumer applications of data. From a journey planning perspective, what are the objectives DfT want to drive, and what suppliers want? Not always the same.

Government perspective: want consumers to not just plan journeys by time taken to travel - often time/duration is the only option given to us as users.

Also public transport might not always complete on time. This doesn't mean public transport is not overall the best option. Should consider other factors like activity and environmental impact that need to be taken into account. Also useability and accessibility. Question of how private sector market responds, and how they start to explore these areas that support government objectives that go above and beyond time taken to complete their journey.

Second question on my mind - whether our role in government is to provide journey planning solutions, or to help consumers make better decisions/be better informed? Choice engines - comparing services based on average speed time taken etc, by speed, time, fares, emissions, accessibility, satisfaction etc. This starts to feel more about what we should be doing here.

Nic: I joined DfT when we had a Journey Planner. Epic. Cost us £6m a year - it was pioneering / epic in many ways. But we were told we had to shut it as government policy was not to do it. Was the world's first. Could have a change of policy, but Meera has touched on the reason why this is unlikely to land. Challenge with journey planners at the moment is data, and how myopic they are in providing information to users. DfT doing great work on the data, not yet complete yet by any stretch. Think we will start to see increasing quality in journey planners as result of data improvements. Let's not forget, Google Maps is an international journey planner. Amount of £ it has, and it's looking at entirely of journeys, and breadth of modes and other stuff. Don't think government should compete in this space, and don't think it should.

John Carr: get what you say about investing in developing a journey planner. Lets not forget for Olympics, we had the excellent development of journey planner that helped people with mobility impairments. That work is being maintained in some places but in others is largely lost. We are not asking for investment in creating a journey planner, but what we might actually be doing is saying 'these are the best set of requirements of what a good journey planner should do/be, based on the quality of data that is becoming more readily available'.

Accept what Meera says, it's much more than speed or least number of changes. The level of comfort and amenity in the vehicle is important for many.

Meera: Traveline research, we have been asking Transport Focus and Traveline about. Interested in how we can work with Traveline, and how we can support them to be that trusted partner with government to deliver a service that does have good data. But also as a not-for-profit, it actually builds trust of passengers and consumers, and thinks about societal objectives that journey planners need to fulfil, rather than just commercial objectives that suppliers / app developers will naturally also care about. What you are saying John is right, but agree with Nic, it is not for government to solve, but to enable and guide.

ACTION for Meera: Thank you John, I will review your email and comment on it.

John Carr: Also see Julie's comments in the chat which are also very helpful, and also theTraveline report on future options.

Tim: would be great to chat / explore this in next few weeks. with Nic's framing, wider societal view, maybe best thing to look at - what information do people need, and how do they want to consume it, to help them make decisions about their journey. More multimodal view of the world - government could be encouraging people to develop in this space. Being clear on guidance on what information people need. So far, its an assumption that people want to make a public transport journey, or that they are going to walk; these are mode-first choices.

John Austin: a few years ago, did some work with Transport Direct (2004 ish) on this very topic. Might be in archive files somewhere. Lots of TD funded research too in DfT archive.

Dan Saunders: whole purpose of BODS to promote Bus journeys. If there is a wholly unrealistic option, it will put people off. Problem for some journey planners is that they are clear on the sources for data, when it was last updated or how accurate it is. People tend to take what they see at face value and not realise the potential accuracy issues behind it. Not sure how you solve this, but more a general comment.

John Carr: agree with Tim, need to find what general public (users or non-users) really want and how they would use it. So that's why it is naturally within the Transport Focus area. In terms of multimodality, already have journey planners that gives you cycle and walking options. Google Maps has started adding a car link at beginning/end of journeys. Shows Google are thinking about some of these problems as well.

Not a goal for a big exercise to create an ultimate journey planner, but really to say that, if people are going to be finding different quality of solutions, this is something DfT should be concerned about and providing guidance / direction on.

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Julie: the more disruption information you have in a journey planner, the more variabilities and complexity it is. Also the harder it is to measure, and can't check it historically. Do understand there needs to be a standard, but that flexibility and response to live changes needs to be accommodated. Walk speed gives you a very different set of options.

Tim: Keith Sabin sent feedback on John's paper, questioning if the different journey planners used were using the same source data? Also covering the points we've discussed - its more nuanced. Raising that London/SE experience potentially being quite different to rural areas and much less service provision there. Need to make sure it works anywhere across the country.

Tim: John, where do we go from here on this do you think?

ACTIONS: John Carr: think we put in on agenda for the next meeting, ask people to think about it, look at Traveline results, then revisit it. I'll go back to Anthony Smith with it, maybe someone from Transport Focus would like to be involved?

Julie: Guy Dangerfield might be the best option - he sits on our board. Interesting crossover.

6.0 Traveline Projects (1:07:24 - 1:20:12)

Julie update:
Published our research today, on the qualitative work we did with Transport Focus. We weren't able to complete the third phase (2,000 questionnaires) because of Covid, so that aspect has been suspended. Questionnaire that goes with that is open for consultation, and money is set aside for this, so could still collaborate on this to deliver it.

Transport Focus have published all the results, there is nothing hidden. Everyone can see it.
https://www.transportfocus.org.uk/publication/planning-journeys/

Action for all: to review and comment
We have a Traveline features meeting to work up projects for:
- **'Where's My Bus' feature on Traveline website**: now we are consuming BODS data, next stage is to add 'Where's my Bus' to Traveline website. Difference between SM and VM; we already have SM for 52 of the Local Authority RT feeds - this is good but does not cover all buses yet. We will add the live bus location to that. At the moment we can't match bus journey / trip to the timetable data, but that doesn't mean we can't use it. It's the closest we can get to disruption information at the moment. You'll be able to see your service location in relation to where you are located, rather than per schedule. Because

it's a website, you'll have to specifically pin-point your location, which is not ideal. Perhaps we do need an app?

- **Single fares demonstrator:** taking in NeTex data to shows single leg fares on Traveline Journey Planner. Will need to be beta as data isn't valid, problems with it as a dataset yet, so working with a fuzzy match supplier at the moment. Service codes not working properly yet- the unique link ID. Need timetable to know which trips are before 9am etc to make all the geospatial stuff work properly.

- **Plusbus phase 1:** Want to add ability to show plus bus fare at a destination so people with a Plusbus ticket can plan this. Rail does it but doesn't show bus at the other end. Silverrail provides our Journey Planner and they have two APIs. The Rail one delivers this capability for rail, and the public transport API, where they will build additional stuff to make it work in here too. It's about integrating travel and encourage people to stay on Public Transport network. Also looked at adding a CO_2 calculator, and bringing in private mode. In our research questionnaire, had a set of options that people can pick - to speed up or slow down walk. Seems to be too difficult for peple to use, but they do want to know how to widen their search area, which is essentially the same thing. So we need to figure out how to make it easier to do, and call it something more useful and understandable.

Opportunity to get involved: In the New Year, Traveline are running workshops around BSIPs, mostly with Local Authorities but anyone welcome. We want to explore what things Traveline can change to make BSIPs work better. You are paying for a service from us - so how can we adapt our working approach to give you more value? Local Authorities already have the ability to login and use the Silverrail API. Do you want to ask it different questions? Traveline ask things in a certain way, you can ask different questions and get different answers. More opportunity to exploit here.

WebLayer our journey planner on top of other APIs too. Don't need everything in one planner - build in layers / modules instead. Don't need everything in one journey planner.

Lots of asks in the BSIPs you have submitted, that we could actually do for you, but didn't realise this early on. Traveline started off as a Local Authority organisation. Now a resource that should be there for Local Authorities. Now we have come out the other side of Covid, and get BODS up and running, can now start to move Traveline forward for customers, both ours and yours.

Widget from Traveline running on your page, white-labelled.

Traveline NE website - its their website but they are using our widget. This embed option is easier than you having to design and develop from API, so less design choice, but a cheaper option.

Plusbus phase 2 - look at selling Plusbus tickets. Need barcode ticket project live. Tech side has

delivered 6 weeks early, so now able to sell Plusbus barcode tickets, but not live yet. Train operators have to make it live - doing coordinated effort with RDG, Local Authority(s) and bus drivers education. Ready to roll out end Jan/beg Feb 2022. Only 3 of us doing the Project Management and comms/marketing; 2 of us have Covid and the others are on leave! Had GWR contact us about their marketing to add the Plusbus details.

Questions and discussion
none

7.0 CMS for Electronic Display Standard Interface (1:20:12 - 1:28:38)

Tim: RTIG working with Transport for Wales to try and get to point that Local Authorities, with a CMS and displays out on street / in shopping centres etc, don't have to put messages and content into multiple CMS's all the time. This is about reducing overhead of providing good quality customer information.

Looking at introducing a standard for plugging supplier A's displays into Supplier B's Content Management System.

Talked about it at last meeting (September 2021), project been running for a while now. Now have late drafts of the first two parts of the documentation.

Have designed communications and network architecture that it needs to support, using something new to UK PT market MQTT. Not a new standard, just new to public transport in the UK. Has wide adoption in public transport in Scandanavia, Denmark, Germany.

Also have the basic data structures and messages needed to support Basic Text Displays (traditional 3-line LED's sort of thing).

Publishing v1 of this, pending any comments, in early January 2022. Then we'll start work on what is needed to support graphical displays (TfT, advertising content, newsfeeds etc). Then we'll look at additional requirements for more specialist displays (off-grid / battery powered displays). Then what might need to be added on for future requirements - how do we support accessibility requirements, such as audio, increasing font sizes etc.

During 2022 we'll start to see live implementations of this.

If you want to get involved, all the information is available on the RTIG website.
https://rtig.org.uk/projects/CMS_PID_Interface

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Questions/discussions

Mike Baxter: we are buying a lot of battery signs in Leicester, which will have its own CMS. Presumably as these predate these guidance, then presumably we will be struggling with this problem?

Tim: part of the challenge we've been looking at is how might this affect all the displays out there. In the architecture, there are options for an existing CMS to pretend to be a display and subscribe to this using this standard. With a bit of work on your battery-powered display CMS, could then plug it into a different CMS if you change RTI supplier etc. So we are looking to support existing systems too.

Mike Baxter: great, so looking retrospectively too.

8.0 RTIG Publications (1:28:38 - 1:34:17)

Tim: RTIG publications: number of Working Groups have come to completion this year. Have now published paper looking at bus bridge strikes. Buses not as big a problem as HGVs but still an issue.

The paper provides advice on practical things people can do to avoid it, as well as electronic solutions that might help.

Also published a report on Audio Visual next stop on-bus displays and audio equipment in preparation for the Accessible Information Regulations coming out in 2022. Note we only have TfL as an operator on the call, but hopefully it helps operators and Local Authorities to see through maze of different solutions and options. Both publically available to anybody. For RTIG members, there is a paper on passenger counting solutions, which has been a priority this year; this reviews the different options.

There is also a guide, published in October, on producing Christmas and New Year data for submission into BODS (coding the different days correctly etc). Will probably continue doing this in advance for future public holidays etc. Also a special guide probably needed for Queen's Jubilee in 2022, as there is a Bank Holiday on the Thurs that has been moved from the Monday, plus an additional Bank Holiday which is a Friday. This will confuse some people and systems I'm sure.

Questions/discussion

Mike Baxter: the Christmas and New Year guide, presumably doesn't cover issues with late data?
Tim: we can produce advice to support, but can't make the horse drink the water! The Guide did advise data to be submitted by 18th November, which is tight.
Mike: even the best struggled to meet that!

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9.0 EU Standards development (1:34:17 - 1:37:44)

Tim: **Really close now for update to SIRI v2.1.** Really close now for core parts 1-4. SIRI SX might still be six months or so before it is published. 1-4 about to be published by BSI. Drafts are available on RTIG if you know the link.

Part 5 of NeTEx on alternative modes (scooters, shared bikes, car pools, etc) supported now.

On-Vehicle Communication Road Scheduling Control Systems - number of updates coming to these standards, including future sections - standardising automatic passenger counting so you can plug and play from different suppliers. Will include things like NQTT (see above).

Data for PT project - project is trying to encourage use of standards such as NeTEx and SIRI (Transmodel family of things); they have an increasing library of advice and support for those wanting to implement these/ learn more.

Questions/ discussion
none

Tim encouraging people to get involved in standards development - open call for more people to get involved. It can be both really interesting and boring!

10.0 Issue Log (1:37:44 - 1:39:10)

Two of the three open issues can now be closed: 98 and 99. These relate to Vehicle fuel types, which are now included in SIRI 2.1.

Tim: invite for people to use the process. Do you have a problem you think you have found with standards? Missing support for something? Suggest changes? **Reporting to the Issues Log is the way to go about this - raise with Tim.**

AOB

None

Next Meeting

Now set for 3rd March 2022