

Non-Members Edition

August 2022 – Issue 156

## What's on

The calendar below shows key events over the next few months, from RTiG and our associates. For further details of RTiG events please contact [secretariat@rtig.org.uk](mailto:secretariat@rtig.org.uk)

### Physical Workshops

21 Sept 2022 Improving Bus Services Using Data (Birmingham)

### RTiG Virtual Workshops

11 August 2022 Introduction to the Display Interface Protocol  
22 August 2022 ABODS: Local Authority Workshop  
25 August 2022 ABODS: Operator Workshop  
1 Sept 2022 Digital Twins - What are they?  
13 Sept 2022 ABODS: Operator & Authority Workshop

For booking details see the website.

### Future Structure & Governance Events

17 August 2022  
6 September 2022

### Working Groups

7 Sept 2022 Procurement of Software as a Service  
5 Sept 2022 CCTV Technology & Best Practice

### Committee

8 September 2022, Virtual

### PTIC

29 September 2022, Virtual

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# NEWS & EVENTS

## Newsletter Frequency and Email Alerts

The newsletters are produced on a monthly cycle.

They will be posted on the RTiG website and emailed out to the newsletter contact list.

If you think a colleague or contact would benefit from receiving the RTiG newsletter then please ask them to fill out the form on the website or use the QR Code.



## RTiG on Twitter

RTiG is now on twitter as @RtigInform

<https://twitter.com/RtigInform>

## Photo Library

To help liven up RTiG printed and digital outputs we are interested in receiving any images of public transport information real time or otherwise that you would be happy for us to use.

We will of course credit the appropriate source if published.

If you have any material, you would be able to let us have access to please contact Tim [tim.rivett@rtig.org.uk](mailto:tim.rivett@rtig.org.uk)

## Working Groups

If anyone wants to become involved in any of the work packages in the business plan then please feel free to discuss or commit by getting in contact with Tim [tim.rivett@rtig.org.uk](mailto:tim.rivett@rtig.org.uk) .

## Hearing Loops

During the pandemic, bus operators introduced Perspex screens between the driver and passenger to help provide protection from COVID-19. This barrier increased the challenge for passengers and drivers who have hearing problems.

The use of audio induction loops (hearing aid loops) and other solutions will help to alleviate some of the resultant problems.



The requirement will form part of the future vehicle requirements as seen in the new zero-emission buses scheme.

We will be producing an advice note for operators.

If you want to be involved in the group creating this then please let us know.

## CCTV Technology & Best Practice



In the 15 years since RTiG last produced guidance on CCTV there have been many changes in the technology available and its capabilities.

We are convening a working group to create updated advice on CCTV. We currently expect this to cover different camera and recording technologies, and good practice advice on management of images, installation and maintenance.

If you want to be involved in the working group exploring this then please let us know. To get involved in this group please get in touch [tim.rivett@rtig.org.uk](mailto:tim.rivett@rtig.org.uk)

The first meeting of this group will be 5 September 2022 at 15:00

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S****Procurement of Software as a Service**

With an increasing move by software suppliers to supply services on a Software as a Service (SaaS) basis, the approach to procurement needs to change to reflect this shift.

Traditional procurement and contract arrangements need to be updated to reflect the requirements and expectations of SaaS.

We have convened a working group to create guidance on how to better procure SaaS systems.

We've had our first meeting and ideas for the report are being developed.

If you want to be involved in the working group exploring this then please let us know. To get involved in this group please get in touch [tim.rivett@rtig.org.uk](mailto:tim.rivett@rtig.org.uk)

The next meeting of this group will be 7 September at 14:00

**Towards Net Zero Carbon**

The UK government has introduced ambitious goals for the UK to become net-zero carbon by 2050 and transport is the largest source of carbon dioxide (CO<sub>2</sub>) emissions in the UK - damaging both the environment and public health.



In addition, the UK government's recent De-Carbonising Transport report outlines a strategy for reducing overall car use,

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promoting the “natural first choice” to be public transport and emissions-free modes of travel like walking and cycling.

We all need to address the climate crisis and RTiG is reviewing its activities to take the necessary steps to ensure our own climate impact is reduced; and to assist with and promote, the actions public transport takes to reduce its carbon footprint.

The report that is underway on the Environmental Impact of Displays is the first piece of work.

We want to know what we should do next?  
How can we help you and your organisations better understand your impacts?  
How can we help you reduce your impact?

Please let us know what we can do to help and what you want us to work on.

## Standard Interface for CMS to RTI Displays

Transport for Wales would like to specify a standard interface between the Content Management System and RTI Displays, that suppliers would need to comply/work with to enable TfW to procure a single CMS that can interface to multiple displays from a number of suppliers.



The standard will specify the minimum capability that is to be expected of all displays supported through the interface (i.e. be able to represent real time vehicle arrival/departure information, text based messages and hold the scheduled timetable for at least that day's services).

The interface will cater for the following:

- Basic text based displays
- Graphical displays - in addition to the minimum capability, also be able to provide additional information such as weather, news feeds, advertising, information videos etc.

# NEWS & EVENTS

- Off grid displays - these will not have ready access to power and may not have significant data bandwidth available to show graphical content.

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The first two parts:

- Part 1 - Architecture
- Part 2 – Core Content Messages

Have been published:

[https://rtig.org.uk/projects/CMS\\_PID\\_Interface](https://rtig.org.uk/projects/CMS_PID_Interface)

The latest draft of Part 3 on Graphical content is available for review can be found at:

[https://www.rtig.org.uk/projects/CMS\\_PID\\_Interface](https://www.rtig.org.uk/projects/CMS_PID_Interface)

The working groups are reviewing the graphical display.

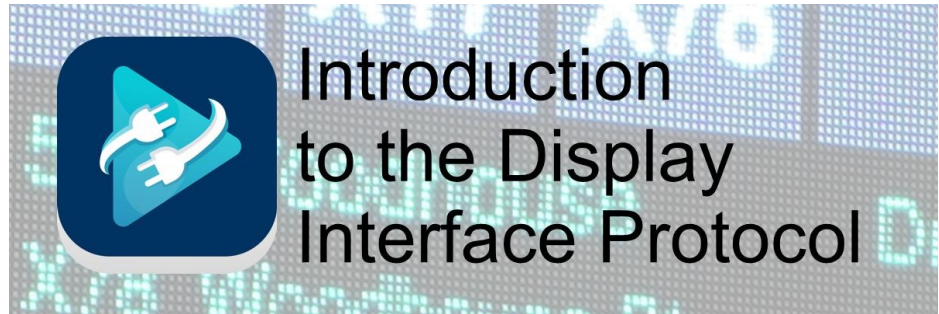
The next workshop will be on 18 August at 09:30

## Past Webinars

All our previous webinars have been recorded and available on our YouTube channel:

<https://www.rtig.org.uk/youtube>



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S****Upcoming Events****Introduction to the Display Interface Protocol**

Earlier this year we released the first part of a standard for the way that displays communicate with content management systems.

These first parts have been developed in conjunction with Transport for Wales as part of their Welsh real time system developments.

The standard specifies the minimum capability that is to be expected of all displays supported through the interface (i.e. be able to represent real time vehicle arrival/departure information, text based messages and hold the scheduled timetable for at least that day's services).

In an earlier webinar we introduced MQTT, the underlying technology, in this session we will look at the principles behind the standard interface and how it uses MQTT and some architectural considerations if you are planning to use the standard.

Thursday 11 August 13:00

<https://www.eventbrite.co.uk/e/introduction-to-the-display-interface-protocol-tickets-375993926957>



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S****Digital Twins - What are they?**

Digital twins are a virtual representation of a physical something which could be as simple as a drill or as complex as a city. The digital twin uses data, data analytics and machine learning to help simulation models that can be updated and changed (real-time) as their physical equivalents change. This allows different scenarios to be explored and tested before implementing them in the physical world.

This webinar will introduce the concept and explore they are already being used and start a conversation about how we can use them in public transport.

Thursday 1 September 13:00

<https://www.eventbrite.co.uk/e/digital-twins-what-are-they-tickets-393146490737>



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S****Improving Bus Services Using Data**

Managing bus services is increasingly complex with changing customer needs and expectations, increasing congestion and the introduction of Bus Partnerships .

Providing quality information to customers and understanding network performance is more important than ever before. The use, and presentation, of data can help ensure routes are as efficient as possible, customers are properly informed and the inevitable operational challenges are managed effectively.

In this day conference you will find out how operators are using data to manage bus services in more efficient ways than previously possible to optimise schedules and live operations.

You will hear about ways data is being used for:

- Reporting and analysis. Monitoring route and network performance, as well as identifying where there are congestion and delay hot spots and future network planning
- Bus priority at traffic lights.
- Information to customers.
- Live operations, allowing operators and traffic management teams to intervene in real time to identify incidents and delays so they can intervene quickly to reduce the impact to customers.

We are holding this event in Birmingham to ensure it is as easily to get to from as many places as possible.

The IBIS Birmingham New Street Conference Centre is located just 5 minutes walk from the main station Birmingham New Street Station.

Wednesday 21 September, 10:30 – 15:45

<https://rtig-improve-bus-services.eventbrite.co.uk/>

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S****Future Structure & Governance Arrangements**

There are proposed changes to the legal structure of RTiG that as a member you need to be aware of.

We have produced a paper, which describes the current legal structures, why the changes are necessary and outlines the proposed changes.

<https://www.rtig.org.uk/system/files/documents/RTIGC073-1.0%20Restructure%20of%20RTIG.pdf>

We are holding two events that will, along with the paper, outline the background to the current legal structures and outlines the proposed changes for your comment.

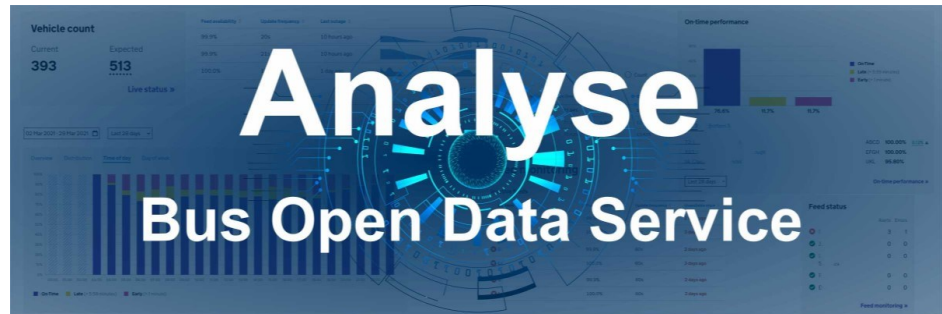
There will be plenty of time for you ask questions at the event or if you don't want to ask them at the events please get in touch with Tim Rivett or any of the committee members.

When changes have been discussed and consensus reached and ready to be progressed, we will need to hold an Extraordinary General Meeting of members to approve the changes.

Two events to present these changes and answer questions are being held on:

- 17 August 13:00  
<https://www.eventbrite.co.uk/e/391773163077>
- 6 September 12:00  
<https://www.eventbrite.co.uk/e/391791969327>

## Analyse Bus Open Data Workshops - August



In August 2022 we will be holding workshops that will explore some items currently on the development road map and seek to identify what new features and functions local authorities would like to see in ABODS.

There will one focused on Authority requirements on 22nd August  
14:00 - 16:00

<https://www.eventbrite.co.uk/e/analyse-bus-open-data-local-authority-workshop-tickets-372833002547>

There will one focused on Operator requirements on 25th August  
14:00 - 16:00

<https://www.eventbrite.co.uk/e/analyse-bus-open-data-operator-workshop-tickets-372840364567>

There is a combined workshop on 13<sup>th</sup> September 14:00 – 16:00

<https://www.eventbrite.co.uk/e/analyse-bus-open-data-authority-operator-workshop-tickets-392960805347>

## Decarbonising Transport - A Better, Greener Britain



One year on from launching the transport decarbonisation plan, the Department for Transport (DfT) has set out its next steps to drive down greenhouse gas emissions from transport.

The report, Decarbonising Transport: A Better, Greener Britain, highlights the progress made to date including:

- almost 2,000 new zero emission buses funded, including through the Zero Emission Bus Regional Areas (ZEBRA) scheme and the All Electric Bus City initiative for Coventry.
- Consulted on setting an end date for the sale of new, non-zero emission buses.
- We also launched a call for evidence to better understand how we can decarbonise coaches and minibuses.
- Announced indicative funding for 31 areas in England outside London to deliver local bus service improvements and encourage passengers onto buses.
- Further incentivised the uptake of zero emission buses through an uplift in the Bus Service Operators Grant (BSOG).

<https://www.gov.uk/government/publications/decarbonising-transport-one-year-on-review>

## Heatwaves & Design Specs

Last month's heatwave raises some questions for equipment designers and those writing specifications.

Data centres had to switch off equipment to reduce the heat and stop catastrophic failure.

Whilst we've not heard of large-scale equipment failure on bus or on street, there have been some failures have been reported.

For many years a standard hardware specification may have included a requirement that it is designed for the following ambient conditions:

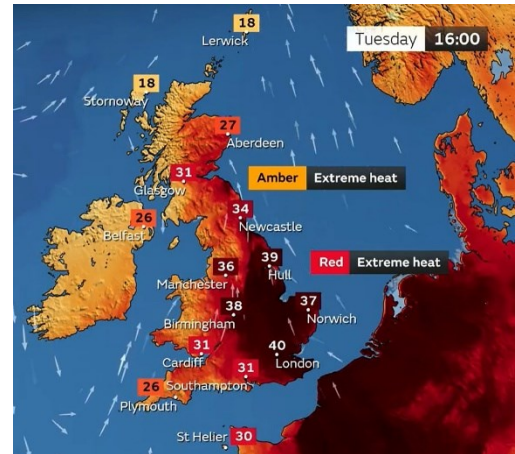
- Operating Temperature Range: -15°C to +40°C.
- Operating Humidity Range: 5% to 95% (non-condensing).

Now that in the UK we have had a day where the temperature reached 40.3°C the historical temperature requirement looks outdated.

With predictions of heatwaves reaching 40+ °C more regularly in future as global warming takes more of a hold, what should a revised operating temperature range be?

Some metrologists are predicting that heatwaves could be reaching 40°C regularly by 2030 and reach 45°C, or closer to 50°C by 2050. Whilst 2050 is perhaps stretching the lifespan of equipment,

Is 50°C too high a temperature to be specifying now for equipment that may have a 10+ year life?





## Trueform - Business Development Manager

trueform

[www.trueform.com](http://www.trueform.com)



# We're Hiring!

## Senior Sales / Business Development Manager - Digital Signage

**Passenger Transport, Smart City Infrastructure, E-Mobility, Clean-Tech & Zero Carbon Mobility sectors**

**A fantastic opportunity to join one of the World's leading green manufacturing and technology organizations.**

Trueform Digital is a pioneering British manufacturing & technology company. Operating internationally, Trueform are global leaders in the design and manufacture of innovative infrastructure and applied technology solutions for Smart City Infrastructure, E-Mobility, Clean-Tech, Zero Carbon Mobility and Public Transportation sectors

Trueform provide award winning hardware and digital signage solutions to many of the World's leading cities and have installations at over 150,000 locations throughout the UK and internationally.

To support increasing demand for Trueform's award winning products we require a high caliber **Digital Signage Sales / Business Development Manager** to assist with sales, business development and tendering activities.

A senior position, candidates will ideally have extensive RTI / digital display sales experience gained from within the public transportation / systems integration industry.

The position includes responsibility for managing and developing existing customer relationships with key customers in the UK, Europe and North America to ensure Trueform is positioned in preferred status for future new business as well as identifying new business opportunities.

The position would suit those with existing digital signage / RTI display experienced gained within similar industry sectors.

APPLY NOW AT  
[jenny.rye@trueform.com](mailto:jenny.rye@trueform.com)

# M E M B E R S N E W S

## Keeping in touch with you

As well as keeping you up to date with all the latest news from RTIG, this newsletter aims to provide a community forum for members. We therefore offer RTIG members the opportunity to submit a short article here on any issue or innovation that might be of interest to the community.

There are two ways of becoming involved in this:

- Email pieces to us when you have them – press release format is fine, and pictures are welcome.

Nominate a marketing contact who will be included in the editor's monthly process of 'chivvying'.



A Journeo 28" stretched TFT, double sided, pole mounted unit in Nottingham



# M E M B E R S N E W S

## TfGM partners with SkedGo on MaaS initiative

Mobility-as-a-Service (MaaS) provider SkedGo is working in collaboration with Transport for Greater Manchester (TfGM) to help ease city congestion and encourage public transport use.

The partnership sees TfGM incorporate SkedGo's journey planner onto its website, offering commuters a wide range of mobility options in Greater Manchester, including buses, trains and trams. Users can see the CO2 output for each trip and prioritise journeys based on low carbon emissions, time taken, convenience and cost.

John Nuutinen, CEO, SkedGo, says: "MaaS technology is a fundamental tool to reduce air pollution. Our journey planner provides authorities and local governments with the data needed to make greener and sustainable travel a realistic goal.

"MaaS technology has proven its success already and we're looking forward to supporting TfGM on its sustainability objectives."

More than 5.6 million journeys are made across Greater Manchester's transport network each day<sup>1</sup> and congestion costs Greater Manchester £1.3 billion a year<sup>2</sup>. SkedGo's contract with TfGM follows its ongoing work with Leicester City Council, promoting active travel as part of the Choose How You Move initiative.

Nuutinen adds: "Manchester's population is expected to hit 627,000 by 2025<sup>3</sup> with 100,000 people choosing to live in the city centre. We believe our journey planning technology can encourage the use of public transport and increase cycling and walking, to ensure our UK cities become healthier, greener and more productive."

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S**Stagecoach becomes first operator to complete national roll out of bridge alert technology**

Stagecoach, the UK's biggest bus operator, has announced the successful completion of one of its key safety enhancement projects. In partnership with Greenroad, the bus operator is the first in the UK to roll out new low bridge detection functionality across its nationwide fleet of double decker buses, equating to more than 4000 of vehicles.

The £4m project will strengthen existing measures in place to prevent bridge strikes and build on Stagecoach's industry-leading use of the GreenRoad driver safety and fuel efficiency system.

Using a simple traffic-light-like LED system on the dashboard, the GreenRoad system gives drivers instant feedback about their driving manoeuvres, encouraging smoother, safer, more fuel-efficient driving that is more comfortable for passengers.

The intelligent GreenRoad system will use GPS vehicle location data and mapping services to alert the driver to nearby low bridges. If the technology determines that the bus is heading towards a low bridge, it will sound an in-cab alert, allowing a safe exit route that avoids the bridge.

**TransportAPI and Traveline are working together to explore open bus fares**

TransportAPI is delighted to announce that we have begun working on a discovery of open bus fares with Traveline this month. The Bus Services Act 2017 created a duty on operators to publish their fares for the first time and the DfT set up the Bus Open Data Service (BODS) to serve out the data. TAPI Bus Fares is the first national source of bus fares from BODS behind an API, translating the complex Netex files from the operators into an easy-to-use form for application developers and data scientists.

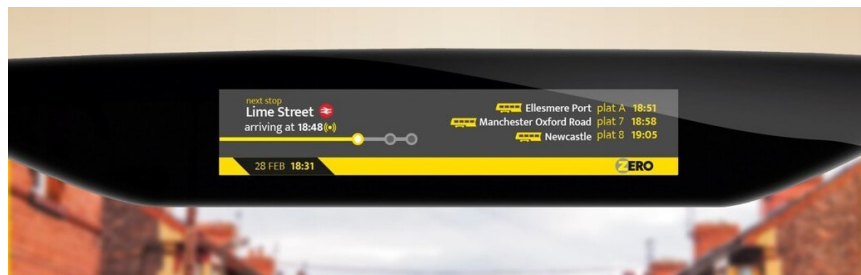
<https://www.transportapi.com/blog/2022/07/transportapi-and-traveline-are-working-together-to-explore-open-bus-fares/>

## First look inside state-of-the-art new hydrogen buses coming to Liverpool City Region.

The first images of the interior of the new, zero-emission hydrogen bus fleet coming to the Liverpool City Region have been released.

The CGI visuals give a sneak peek at the hi-spec interiors and features which passengers on the new vehicles will be able to experience when they come into service.

...  
Other new features of the hydrogen buses include camera wing mirrors to improve safety, as well as audio and visual announcements for next stops – with high definition onboard screens to update passengers on journey progress in real time.



Screens will also display information about onward connections as the vehicles approach train and bus stations, allowing passengers to more easily transfer between different modes of travel – an important part of Mayor Rotherham's plans for an integrated London-style transport network for the Liverpool City Region.

## Real-time data project launched to tackle traffic congestion

A new project has been launched which aims to reduce traffic congestion and pollution by using real-time data insights.

Oxfordshire County Council's (OCC) Research and Innovation team, iHub, and Alchera Data Technologies, based in Cambridge, have announced the successful completion of Phase 2 of its New Mobility project.

# M E M B E R S N E W S

The overarching goal of the two-phase project was to enable data-driven decisions for transport network management supported by a shared data environment.

In phase one, Alchera undertook a research project with control room users and then merged moving vehicle data from TomTom, a geolocation technology company, with existing under-road vehicle counting sensors to detect abnormal traffic conditions.

This enabled OCC's transport team to react faster to adverse conditions across the road network.

Future of Mobility Team Leader at OCC's iHub Ruth Anderson said: "Finding a way to ensure all of Oxfordshire's transport systems have access to the same data on which to make real-time decision is critical. "We can't possibly hope to build intelligent infrastructure if all the systems are using different data."

Phase Two built on the earlier achievements and developed a functioning Transport Data Exchange specifically designed for public sector data analysts.

The exchange contains mobility data from Bus Open Data Service (BODS), Analyse Bus Open Data Service (ABODS), local bus companies, traffic sensors, CCTV networks, ANPR cameras and more with a £1 million Small Business Research Initiative (SBRI) grant.

Alchera's machine learning algorithms make use of existing city sensors and camera networks, delivering real-time data unmatched in its granularity - and allowing operators to develop innovative dynamic & sustainable smart city offerings.

The systems developed will lead to a prototype system that will be capable of offering transport data to technology development companies and the public. As well as work to enable connected and autonomous vehicles on our roads, other developments that could emerge from the research are live data apps on transport flow and patterns.

The research involved and the final product will also enable better collaboration within the council on data sharing work on transport.

# M E M B E R S N E W S

“Our largest system integration combines thousands of sensor sources and performs hundreds of thousands of measurements every day.

“This represents the only demonstration of absolute, real-time traffic counts and classifications, at city scale, in the UK today.”

# A D M I N

## Management Committee Members

The Management Committee for the year 2022-2023 was appointed at the AGM on 23 March 2022. Membership is currently as follows:

Chair: Tony Brown

Members: Sonya Sparks (Essex), Graham Davies (WYCA), Russell Gard (React Accessibility), Darren Maher (21<sup>st</sup> Century), Tony Brown (Atkins), George Connell (Stagecoach), Simon Gold (Reading Buses), Meera Nayyar (DfT)

## Contact us

Best by email: [secretariat@rtig.org.uk](mailto:secretariat@rtig.org.uk).

<https://www.linkedin.com/groups/8557065>

## Next issue

Issue 157 – Thursday 1<sup>st</sup> September 2022.

Please send all contributions to [secretariat@rtig.org.uk](mailto:secretariat@rtig.org.uk) at any time up to Tuesday 30<sup>th</sup> August 2022.

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