

# Bus: the saviour of the sports car

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Readingbuses









## A row of colorful buses parked in a lot under a blue sky. The buses are in various colors including blue, green, yellow, orange, and red. They are parked in a line, and the sky is clear with some clouds.

# Reading

[illegible]



# So we're done, right?



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# Big Data!

**Planned ops:**  
Timetable, schedule,  
duties, rotas, allocation

**Live ops:** Schedule  
adherence, lateness,  
predicted arrivals

**Historic ops:**  
Punctuality, reliability

**Sales back  
office:** Sales,  
pass usage,  
journeys,  
elasticity,  
trends,  
patterns.



**Real-time pax info:**

Next stop info, voice  
announcements, bus stop displays

**Ticketer:** Cash sales,  
ITSO cards, contactless,  
2D barcodes, printer

**Telematics:** vehicle  
performance, driver behaviour,  
live powertrain CAN info

**Customer Wifi:** 2x  
4G SIM cards, GPS,  
MAC tracking



**CCTV:** Up to 16  
cameras plus HD IP  
capability

**What next?:** Seat occupancy  
sensors, USB usage data, tree  
strikes and more...

**Fleet management:**  
Planned maintenance,  
unplanned defects, parts  
issued, cleaning &  
auditing

**Fuelling:** Daily mileage,  
diesel, Adblue, gas

**Stores management:**  
Purchasing, stock control,  
auditing, parts issuing



# Buses that move anywhere on the network?



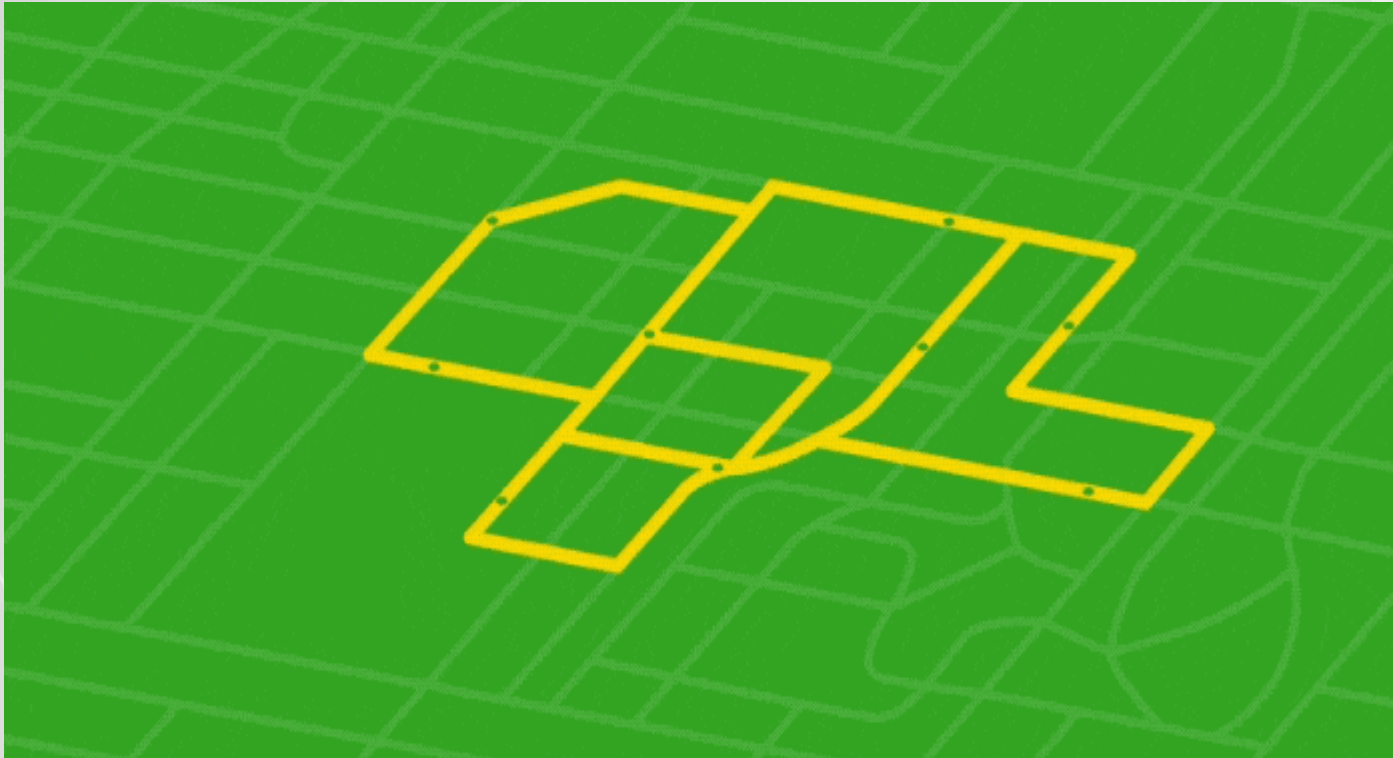
Credit: Citymapper

<https://medium.com/citymapper/the-responsive-network-part-3-3-f9d8394d84f3>





# Or even change the network?



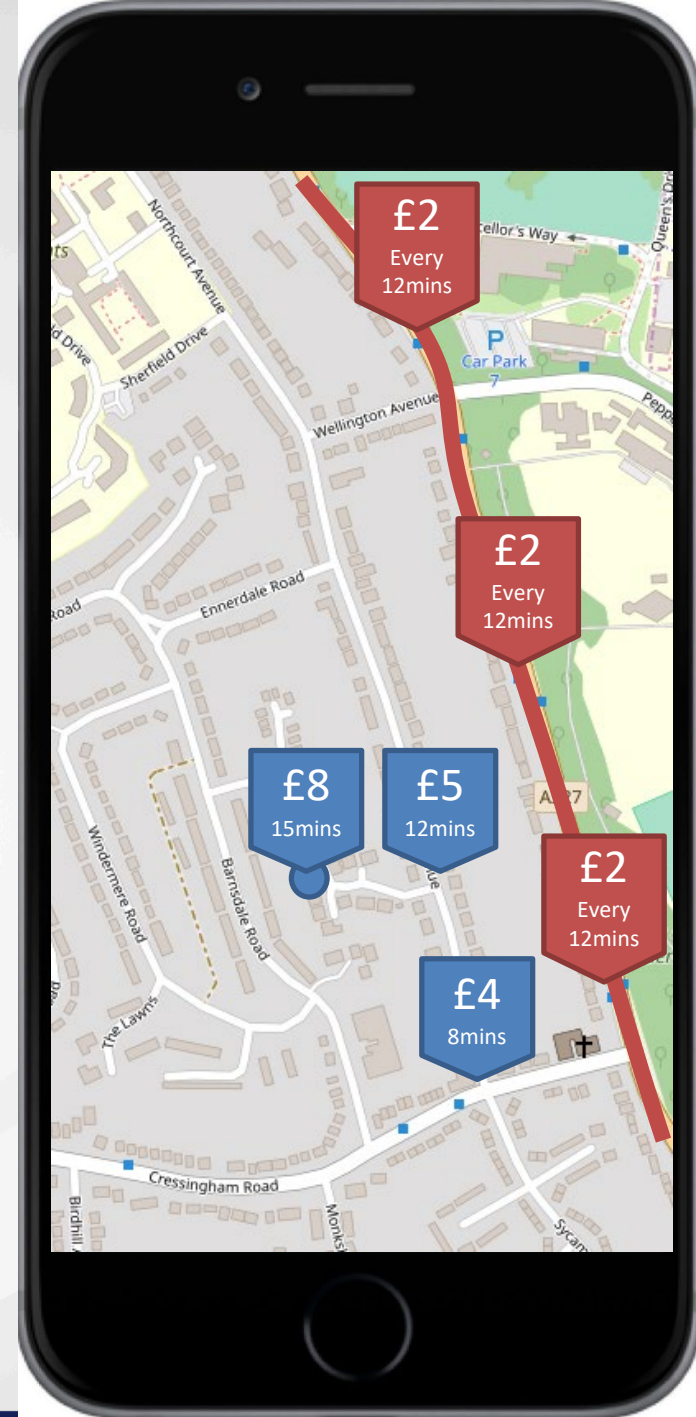
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# Dynamic DRT

- Customer sees pricing for demand by location and/or timing.
- Driver sees dynamic loading schedule and route, re-routed even during the journey.
- Complements scheduled bus services
- Size of vehicle is a compromise for this work:
  - Minibuses can access narrow streets but these longer diversions inconvenience customers wanting direct travel
  - Larger buses can't access as many streets but carry more customers so likely to have many diverse pickup/drop-offs, taking customers out of their way





- Partnering with interested parties for initial 6 months
- Free access to office, workshop, labs and fleet
- Open access to operating data plus deeper access under NDA
- Scope to develop products, services, apps



- Open data: <http://rtl2.ods-live.co.uk/cms/>



We're looking for partners!

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Twitter bot

3D printing

Reading Uni Hacksoc

Tree branch strikes



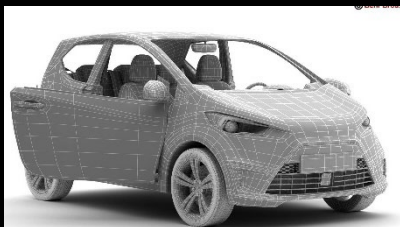
LoRaWAN  
temperature sensing

Customer demand  
mapping

Customer demand  
prediction



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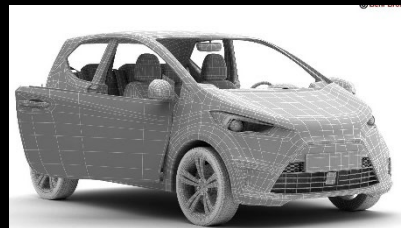
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