

Statement of Technical Requirements: D-DRT (Demand Responsive Transport) Cloud-based, SaaS solution for Wiltshire Council

Wiltshire Council is one of fifteen local authorities to receive funding through the DfT's Rural Mobility Fund, this is specifically for piloting D-DRT (Digital-Demand Responsive Transport) services which are booked through an app.

A key aspect of the new 'Wiltshire Connect' service is that it will introduce an app-based booking platform that will indicate immediate availability of seats and provide real time information about the vehicle location and arrival time. The software system will enable a high level of data to be collected for monitoring and evaluation purposes. The core bookings and scheduling function of the DRT service will be undertaken through the software and sent through to the in-service vehicles via in-vehicle devices. The app will be backed up by a Call Centre booking service which the Council will provide.

The Rural Mobility Fund/D-DRT project is a high-profile scheme which is attracting widespread interest in the UK. The successful tenderer will have the opportunity to share in this and to gain wider benefits from their association with the project.

The following includes the required technical specifications of the D-DRT platform and associated apps for the 'Wiltshire Connect' DRT service. Each sub-section describes the minimum technical specification or functionality required. Suppliers should make clear that they can fulfil these minimum requirements and highlight where their technology provides additional functionality.

- 1.1. The solution must be capable of managing both fully flexible DRT services and semi-flexible (part-timetabled) services containing a mix of timed stops and bookable operating areas.
- 1.2. Initially the platform will manage 6 DRT vehicles (Full and Semi-flexible) across 2 operating areas (see Appendix A for maps), but it is anticipated additional vehicles will be added in due course.
- 1.3. The platform should be cloud hosted.
- 1.4. The contract will be for three years from the implementation date with a 1 + 1 optional extension. The maximum length of the contract is five years.
- 1.5. Operations Dashboard (for managing and overseeing operations)**
 - Access operations dashboard via a web browser/cloud based.
 - Create, edit and search for passenger accounts
 - Enable operator to book, cancel and amend journeys for passengers booking by phone
 - View current status of all live and upcoming trips
 - Be able to dynamically reallocate trips to other vehicles.
 - Create passenger accounts requiring a wheelchair and be able to add extra boarding time for passengers with mobility impairments.
 - Create passenger notes which the driver can view if appropriate.
 - Suspend passenger accounts
 - Create, edit and search for driver accounts
 - Be able to specify different operating/shift patterns for school days and school holiday dates.

- Create and manage key vehicle information for a D-DRT service including being able to pause a vehicle operation when there is a breakdown or operational incident.
- View vehicle operations on a real-time basis with delay management functionality.
- Be able to contact drivers via the dashboard/app.
- Edit and create new virtual bus stops through a map editor and be able to import NAPTAN bus stop locations.
- Temporarily close off roads on the app's mapping function
- Process GDPR data deletion requests
- Ability to manually override the platform where appropriate. For example, to `force` a trip on to a specific vehicle.

1.6. Passenger app (for planning and booking journeys)

- Be able to be fully branded as `Wiltshire Connect`
- Enable passengers to book and cancel D-DRT journeys on demand and track vehicle progress in real time
- Enable passengers to select their origin and destination on a map, using current location as a starting point, or dropping a pin on the map
- Enable passengers to select origin and destination by address/postcode
- Store frequently used/favourite destinations (e.g. Home or Work) for quick booking
- Enable passengers to book seats for themselves, as well as other passengers travelling with them on the same journey
- Identify optimal pickup and drop-off locations, and show walking routes on a dynamic map (including distance & time) from origin to pick-up location, and drop-off location to destination
- Show clear and accurate available and expected pick-up times
- Enable passengers to set up, edit and manage their passenger profiles (including whether they have specific mobility requirements and concessionary fare pass details)
- To be able to process digital payments for fares with debit card, credit card etc.
- Be able to identify those passengers who do not need to pay for a fare e.g. English National Concessionary pass holders.
- Enable passengers to rate their journey and easily provide feedback on their experience
- View current and past journey bookings
- Allow cancellation/alteration of journeys (as per relevant policy), including optional charges for late cancellations and no shows
- Ability to send push notification messages in the app for marketing and promotional reasons.
- Ability to send push notification messages in the app to notify passengers of disruption/operational information.
- Be able to rate and/or provide a review of a ride.

1.7. Booking a Ride (functionality and settings)

- Enable passengers to pre-book journeys in advance (up to one week in advance)
- Flexibly configure a time window in which journeys can be pre-booked (e.g. from up to 30 minutes before bus arrives to up to 1 week in advance)
- Enable passengers to pre-book journeys to either depart from their origin at a specified time, or arrive at their destination by a specified time
- Be able to accommodate group bookings e.g. Many to One, One to Many

- Allow configuration of different parameters (on Operations Dashboard) for Depart at bookings (e.g. Search X minutes either side of passenger's preferred pickup time) and arrive by bookings (e.g. search only journeys that would get passenger to their destination at least Y minutes early)
- Inform passengers of their exact pickup time a configurable number of minutes before boarding.
- Multiple Booking Solutions: different ride offers will be shown and the passenger will be able to choose the preferred one, within the selected booking window.
- Allow passengers to book regular (e.g. daily or weekly) rides.
- Display past and upcoming journeys, so passengers can easily see the latest status of their rides and edit/cancel if appropriate.

1.8. Passenger communications (functionality and settings)

- Confirm bookings via SMS, email or app notification once a journey is booked. (Configurable).
- Provide real-time service information for upcoming journeys, showing live minibus location on a map and accurate Expected Time of Arrival (ETAs) in the app
- Show the service number and/or vehicle registration in the app
- Notify passengers via SMS about their upcoming journey (e.g. 'Bus is X minutes away'), for those who have provided a mobile phone number.
- Flexibly configure and show service messages in the app (e.g. wear face coverings, service disruption, incidents, etc.)
- Ability to send push notification messages in the app for marketing and promotional reasons.

1.9. Dynamic dispatch and routing (functionality and settings)

- Efficient and dynamic routing of services using real-time traffic information
- Routing algorithms which balance service quality with the efficient utilisation of vehicle resources operating in a rural area. (For example – In a zone with more than one vehicle, ensuring that similar rides are not routed on different vehicles within a pre-determined time).
- Ability to configure passengers' maximum detour time, to ensure balance between efficient routing and good service quality for all passengers
- Flexibly configure vehicle details (e.g. number of seats, available wheelchair spaces, etc.)
- Flexibly assign drivers and buses to different shifts and services
- Flexibly configure driver rest periods at designated locations
- Configure the system to reflect differing needs of different passengers (e.g. additional boarding time for disabled passengers, wheelchair users, etc.)
- Be able to restrict certain roads from the routing of vehicles.

1.10. Driver app (for vehicle routing and communicating with passengers)

- Enable drivers to check-in and check-out from their shifts
- Give clear visual directions (turn by turn navigation) for where the driver must travel
- Clearly show where and which passengers are being picked-up or dropped-off during a route
- Enable drivers to confirm when a passenger has boarded the vehicle and been dropped off.
- Be able to record No Shows.
- Enable drivers to contact passengers directly when appropriate

- Enable drivers to communicate directly with operations staff via SMS and driver push notifications.
- Show summary of driver schedule/passenger manifest clearly in app

1.11. Service configuration and defining parameters

- Configurable service definitions that determine where and when passengers can travel:
 - Service definition parameters:
 - Service Area - defines where service will be available
 - Fleet - number of vehicles and capacity of each
 - Service times - days of week and hour ranges in which the service is active
 - Service days – Be able to determine different shift patterns for school days and school holidays and Bank Holidays.
 - Depot location
 - Driver's maximum driving time
 - Locations of virtual stops
 - Flexible break locations and times.
 - Passenger type rules (pick up from stop points and home locations)
 - Ride parameters:
 - Maximum walking distance.
 - Maximum wait time - The maximum time a passenger is allowed to wait for a ride
 - Maximum deviation time – Permitted maximum travel time.
- Set and flexibly adjust fares based on time, location and distance of travel, as well as passenger details (e.g. concessionary passholders)
- Link to / interface with Traveline National Dataset (TNDS/BODS). This should allow conventional timetabled local bus services/routes to either be blocked from booking on a DRT service or shown as an alternative option for passengers at the time of booking in the app. *(This is not a mandatory requirement initially however, we would like to see this implemented as soon as possible.*
- Offer promotional codes or similar functionality that gives passengers discounted fares at specific times/days.

1.12. Reporting

- Provide wide range of user-defined (time, service, passenger, vehicle, driver) management reports
- Provide wide range of passenger related reports (e.g. patronage, demand patterns, unmet demand, no shows etc).
- Provide summary reports on driver activity (including hours driven, distance travelled, journeys completed etc.)
- Be able to produce bespoke reports on an ad-hoc basis as needed.
- Provide visual representation of service usage and travel patterns, so managers can refine the on-demand service and make informed service decisions.
- Downloadable data sets to be exported for analysis and which meet the reporting requirements for the Department for Transport. This includes data on; distance travelled with passengers on board a vehicle, dead mileage, average journey length in time and miles, gender and age of passengers, unfulfilled trip requests, key destinations etc.

1.13. App accessibility and integration

- The passenger app will have to meet the minimum Web Content Accessibility Guidelines (WCAG 2.1) and cater for people with the following disabilities:
 - Visually Impaired/Blind and Illiterate or Learning Disabled
 - Ambulatory or Mobility Impaired
 - Near Vision Issues (Presbyopia)
 - Colour Blindness
 - Hand Motor Impairments

Therefore, for iOS (Apple) devices, customised accessibility features should include:

- **Voice-over:** a gesture-based screen reader that allows visually impaired users to navigate apps by hearing a description of everything on the screen
- **Adaptive font size:** feature to increase the font size, making text more legible to those with visual impairments

For Android devices, this should include the following:

- **Talkback:** a screen reader that uses spoken feedback to describe a user's actions and to tell users about alerts and notifications
- **Adaptive font size and contrast:** features to adjust text size and colour contrast to make the screen more legible to those with visual impairments

We expect the platform including the passenger app to have an average uptime of at least 99.5% of per month, excluding any agreed maintenance windows.

1.14. We are interested in exploring opportunities in the future to integrate D-DRT platforms with the Council's website and mobile app to make the user experience seamless. Therefore, it is essential that the option of developing an API to integrate with the Council's systems is available. **(This is not a mandatory requirement in the initial cost proposal).**

1.15. Minimum Information Governance/ICT Security Requirements

If you are considering tendering for this contract, please confirm you meet these minimum Information Governance/ICT Security requirements.

If you meet these requirements, we may send a further security evaluation in which you should evidence how these requirements are met.

* non-essential requirement

	Yes	No	N/A
Data Protection:			
If you process personal/special category data:			
You are registered with Information Commissioner's Office			
You have appropriate contracts in place if using sub-processors			
You make data subjects aware of how their personal data is processed e.g., privacy notice			
All personal data processed is within the EEA			
Information Security:			
You have security accreditation e.g., ISO27001, Cyber Essentials *			
You are G Cloud listed/approved *			
You have sufficient physical security in place to protect the data			
You have sufficient technical security measures in place to protect the data e.g., encryption of data, firewalls etc			
You back up data			
Your servers/data centres are based in the EEA			
You have Business Continuity Plans			
You can restore data following an emergency event			
You have a data breach process/policy			
Records Management:			
You are able to amend/erase data upon instruction of the council			
You are able to return the data in a compatible format upon instruction of the council			

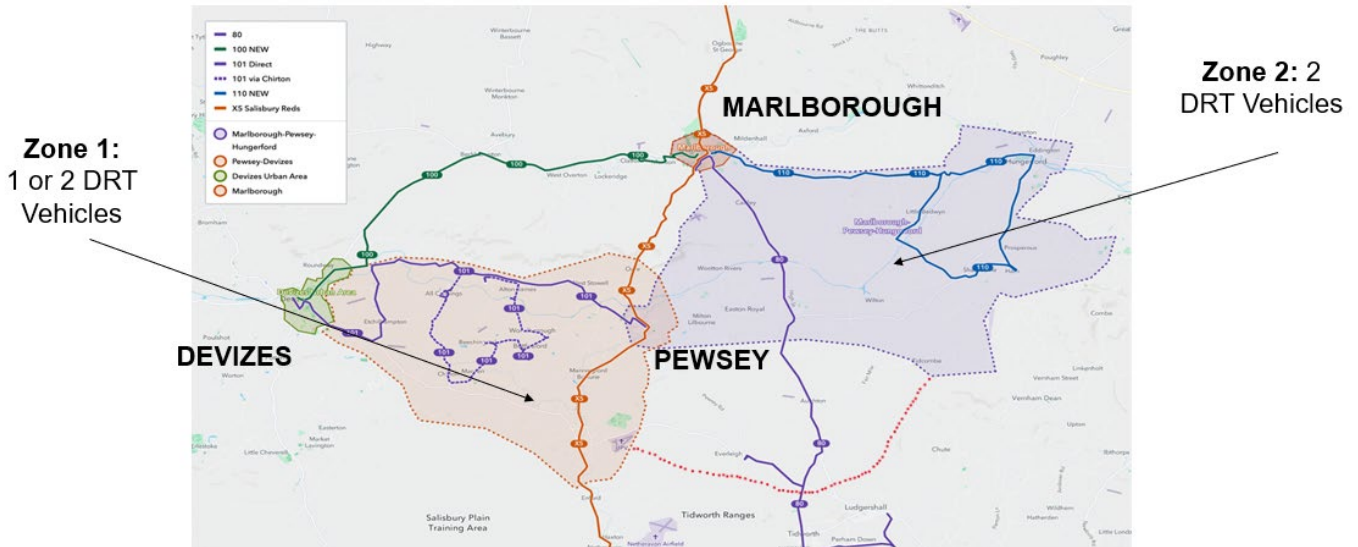
1.16. System Support

- The supplier must be able to provide an appropriate level of technical support during the hours of 9am-5pm Monday-Friday as a minimum.
- A service level agreement should be in place to respond to differing categories of incidence within a prescribed time. High graded incidents should receive a response within 2 hours.
- There should be a clear `out of hours` policy to follow if the platform is experiencing technical issues which is having a detrimental impact on service provision.
- We expect the platform including the passenger app to have an average uptime of at least 99.5% per month, excluding any agreed maintenance windows. If availability drops below 99%, there should be an appropriate credit from the supplier to financially compensate.

Appendix A – Operating Area Maps

1. Pewsey Vale Area (5 Vehicles) – 2 Zones – 2x Timetabled/Semi-Flexible vehicles, 2x Fully Flexible DRT vehicles, 1x Hybrid vehicle with both Timetabled and Flexible DRT periods

Remodelled RMF Network



2. Mere Area (1 Vehicle) – 1 Zone – Fully Flexible DRT (This service is not part of the formal RMF project).

