

1. INTRODUCTION

- 1.1 There is a large amount of evidence both from transport specific studies (e.g. Transport Focus research) and general market information of the value of mobile connectivity (voice and data), some of which highlights people's preference to travel on train journeys that provide internet access and clear voice reception. A non-exhaustive list of information identified by the Department is listed at Section 16 below.
- 1.2 More specifically, there is some limited evidence on how much passengers would be prepared to pay for internet access and clear voice services (See PDFH 5.1 table B7.2 and Non Linearities in Discrete Choice by [REDACTED]).
- 1.3 The evidence does not clearly establish differences in how the values vary for different qualities of internet access and voice reception. For instance, the PDFH values currently differentiate between good and bad voice reception as well as no Wi-Fi to free Wi-Fi, however it does not tell us how passengers value varying quality in these services e.g. between poor, good and excellent internet service access or voice reception.
- 1.4 Additionally, existing evidence does not specify how these values are disaggregated beyond journey purpose (apart from to the extent that it correlates to journey purpose). It is possible that there are significant differences in how passengers value internet service access and reliable and high quality voice reception between different travel purposes (or types), duration and in different areas of the country.

2. OBJECTIVES

- 2.1 To undertake research and recommend to the Department for Transport valuations for internet access and voice reception on trains that:
 - 2.1.1 Are derived from primary research that includes a survey. While we expect that the research is likely to be a form of stated preference survey exercise, we are willing to consider proposals based on other methods as long as they use some form of survey to answer our questions. The suppliers' innovative ideas in terms of survey design, completion method(s) and survey questions are encouraged, though online access panels should be excluded as a recruitment method for the research.
 - 2.1.2 Are disaggregated by the performance of the internet access and by the quality of voice reception. A definition of some standard of differentiated internet access performance and differentiated quality of voice services will need to be agreed. These variable qualities should be tested against each other so that we can use marginal valuations of the benefit of going from lower to higher standards; and
 - 2.1.3 Are disaggregated by any key variables which are important to the valuations. We would expect the researcher to test different potential disaggregation factors such as journey purpose, geography, overcrowding, time of day, trip length, etc. and use this disaggregation to report recommended disaggregation's, as substantiated by these tests.
 - 2.1.4 Are cross-checked against revealed preference evidence of how much people are prepared to pay for Wi-Fi access.

- 2.1.5 Provide qualitative and quantitative answers to the research questions about passengers. See Annex 1 for a list of tentative topic areas that are to be developed and explored by the chosen supplier.
- 2.2 Survey questions will be proposed by the bidder and agreed with the Department soon after the project starts. It is envisioned that these questions will have two purposes:
 - 2.2.1 To test the research against the existing evidence base (including the Transport Focus research).
 - 2.2.2 To inform policy makers about passengers' use of and attitudes towards mobile connectivity on the railway.

3. SCOPE OF REQUIREMENT

- 3.1 The following are **excluded** from the scope:
 - 3.1.1 Any conclusions on how the Value of Travel Time Savings are affected by the existence of internet service access or voice reception;
 - 3.1.2 Any conclusions on how Value of Travel Time Savings will change over time in response to the provision of improved internet access or voice reception; and
 - 3.1.3 Any conclusion about the productive use of travel time that relates from these services as they are currently available.
- 3.2 The rationale for excluding 3.1.1 and 3.1.2 from scope is that this project is small in scope and is unlikely to be significant enough to compliment the large Value of Travel Time Study currently underway (see Section 5 of Understanding and Valuing the Impacts of Transport Investment, Progress Report 2014). It is also believed that it would not be possible to forecast accurately changes to current internet service access and voice reception in order to modify future Value of Times
- 3.3 The rationale for excluding 3.1.3 from the scope of this study is that the Department has a plan to move towards stated preference valuations so that that these impacts will be picked up in people's general willingness to pay for travel time savings.

4. REQUIREMENTS

- 4.1 The following deliverables are required:
 - 4.1.1 Attendance at an inception meeting that will discuss our requirements, the chosen supplier's proposal and plan for the research project.
 - 4.1.2 Agree with the Department the survey methodology and standards of internet service access and voice reception to be tested and a list of questions about internet access and mobile phone reception where qualitative and quantitative feedback will be expected.
 - 4.1.3 Produce an interim report confirming the methodology, design and research questions and a description of the pilot survey.
 - 4.1.4 Pilot the survey to test its suitability and to share the results of the pilot with the Department;

- 4.1.5 Undertake the research.
- 4.1.6 Analyse the research results and produce a draft final report, which the department will comment on before a final report is provided. The report should include the following:
 - 4.1.6.1 A summary of the research results;
 - 4.1.6.2 Recommended marginal values to passengers (specified in units of time or money) of improving internet service access voice access on trains that apply to the different marginal quality levels;
 - 4.1.6.3 Incorporates supporting evidence; and
 - 4.1.6.4 The chosen supplier will be required to provide all of the raw data from the research to the Department and all of the calculations used. A free of charge, perpetual royalty free license to use and publish the raw data.
- 4.1.7 All deliverables will be reviewed and agreed by the Department, the bidder will be expected to update deliverables to reflect reasonable requirements of the Department and reach an agreed document set, as appropriate.

5. QUALITY ASSURANCE

- 5.1 Bidders are required to set out how quality assurance will be achieved, including the proposed research methodology, procedures, staffing resources and assurance that these meet industry best practice. They must demonstrate that these quality assurance processes are robust. Bidders may also wish to propose that their methodology is independently reviewed by appropriate experts.

6. CONTRACT DURATION AND PROJECT TIMETABLE

- 6.1 The proposed project timetable is set out below. The project plan should indicate whether this is practicable.
- 6.2 Final timescales will be confirmed during the inception meeting

Stage	Dates
Interim Report	Contract Date plus [2] Months
Pilot Survey and Share Results	Contract Date plus [3] Months
Draft Final Report	Contract Date plus [5] Months
Final Report and Documentation	Contract Date plus [6] Months

7. PROGRAMME OF WORK

- 7.1 Tenders should include a detailed programme of work setting out how bidders would meet the objectives of the research. This must demonstrate a full understanding of DfT's requirements.
- 7.2 Tenders should also highlight potential difficulties that might arise and how they would identify potential risks of delivery and provide a risk-mitigation strategy.

8. PROJECT PLAN

- 8.1 The tender proposal should include a project plan and time schedule for the work that identifies the main tasks and key milestones that will be used to monitor progress towards production of the outputs, indicating clearly where DfT is expected to contribute. The plan should also be accompanied by a breakdown of the resources in person days allocated to each task (a resource profile).

9. PROJECT TEAM

- 9.1 Tenderers should provide details of the proposed project team, linked to the project plan, which indicates the grade of staff; number of work days per staff member, and number of days allocated to specific work areas.
- 9.2 Bidders should also provide details of team members' previous experience of undertaking research of a similar scope and complexity.

10. PERFORMANCE MONITORING

- 10.1 The contractor is required to appoint a project manager who will manage the contract and will be regarded by DfT as being fully responsible for performance of the programme of work.
- 10.2 Performance and progress should be monitored through regular communication between the Provider and the Department's Project Manager. The format and frequency of these communications should be included in proposals, and it is expected that frequent progress reports / meetings / teleconferences will be required to ensure the project stays on track to deliver to a challenging timescale.
- 10.3 Performance Related Payment
- 10.3.1 Payments should be linked to the satisfactory delivery of pre-agreed products and deliverables. Therefore, as well as ensuring the Department is kept informed of progress and reducing reporting workload at the end of the project, interim deliverables and a clear performance monitoring process will allow a more regular payment schedule.

11. PRICING

- 11.1 Fully costed tenders are invited for this work. Tenders should be submitted on the basis of a firm price.
- 11.2 In cases where contractors wish to present more than one potential solution for delivering the outputs, the options should be clearly defined, and a firm price given for each solution identified. Tenderers should also make recommendations for a preferred solution.

12. EVALUATION CRITERIA

- 12.1 This tender will be evaluated using the following weightings to obtain the optimal balance of quality and cost: Quality 70%; Pricing 30%.
- 12.2 The Percentage Scoring Methodology will be used to evaluate all proposals for this requirement. This methodology is based on the following principles:

12.3 Firstly, the lowest tendered price will be scored 100, and each subsequent bid will be baselined to this score. So a bid which is 20% more expensive on price than the lowest tendered price will be allocated a score of 80.

12.4 Proposals will be evaluated against the Evaluation Criteria. The following weightings will be utilised in the Evaluation to ascertain the best value for money proposition:

Criteria - level 1	Weighting	Score (out of 10)
Service Delivery & approach, this could include organisation plan, project and programme management capability	10%	
Staffing and Resourcing this could include a measure of availability and appropriateness of team proposed, experience, Full CVs	20%	
Quality of proposed solution, methodology, proven ability to deliver, innovative approaches	30%	
Quality Assurance, meeting requirements set-out and ensuring validation	10%	
Fee	30%	Fees will be evaluated in accordance with paragraph 12.2-12.3 above

Score	Definition of score
10	The Tenderer demonstrates fully that they can meet the requirement as detailed in the Specification
9	All major aspects of the requirement fully met, minor issue on the fine points
8	Meets all critical requirements but with minor concerns
7	Meets some requirements but with a major gap or issue
6	Meets some requirements but with a few major gaps or issues
5	Any proposal that fails to score a 6 or above in any of the criteria will be excluded from the process and their marks not go forward to the final assessment. Scoring below 6 indicates serious concerns that this requirement will be met.
4	
3	
2	
1	
0	

13.1 This timetable is not binding and may be changed if circumstances dictate. Suppliers will be notified as soon as practicable of any changes to avoid adverse impact on their costs. Any likely delay to delivery should be notified to DfT at the earliest possible opportunity

14.1 Proposals should be submitted electronically to:

Procurement Contact	Name	██████████
	Telephone	██████████
	Email	████████████████████
Contract Manager	Name	██████████████████████████████
	Tel	██████████
	Or alternatively	██████████████████████████████
	Tel:	██████████

14.2 All queries and questions **MUST** be sent to the procurement contact.

15.1 Invoices should be sent to:

Accounts Payable
Shared Services arvato
5 Sandringham Park
Swansea Vale
Swansea
SA7 0EA

15.2 The purchase order number (to be advised following award of the contract) must be shown prominently on each invoice. Invoices should also include a brief description of

the tasks completed. To ensure swift payment, invoices should only be submitted to the Shared Services Centre once the invoice amount has been agreed with the Department's Contract Manager.

16. RELEVANT LITERATURE

PDFH 5.1 (especially the text around table B7.2)

Non Linearities in Discrete Choice by [REDACTED]

Productive use of travel time and working time savings Motts McDonald (for its investigation into mobile phone reception)

Public Wi-Fi networks in a 4G world (Arqiva)

Connectivity Matters Report (Arqiva)

National Rail Passenger Survey Autumn 2014 (Passenger Focus Now Called Transport Focus)

Understanding and Valuing the Impacts of Transport Investment, Progress Report 2014 (Section 5)

[Mobilemastinfo Stats and Facts: mobile mast info](#)

[OfCom Adults' Media Use and Attitudes Report 2014](#)

[OfCom technology tracker – main set – wave 2 2014](#)

[The Guardian: The death of the feature phone in the UK – and what's next](#)

[OfCom: Mobile phone usage, Attitudes towards mobile phone functions including reception](#)

[ONS: Internet Access – Households and Individuals 2014](#)

[OfCom: The highest average per-capita mobile data use among our comparator countries](#)

[Tnooz: Five major European tech trends](#)

[OfCom Communications report: Techie teens shaping communications](#)

[OfCom: Mobile phone usage - Attitudes towards mobile phone functions including reception](#)

ANNEX 1: POTENTIAL TOPIC AREAS FOR RESEARCH QUESTIONS

Potential topic areas for qualitative and quantitative research questions, include:

- How passengers connect to internet services on journeys and for what purpose.
- What device is used for when travelling: Social Media (facebook, etc.), Email, Browsing the web, accessing information sites, music streaming or offline, video etc.
- Use of voice calls during travel (e.g. receive or make, etc.) and the purpose (e.g. social, business, coordinating travel arrangements, etc.)
- Mobile performance experienced whilst travelling by train.
- How they would change their behaviour if the quality improved.
- Mobile service operator and type of payment plan(s).
- Number and type of devices used and their connectivity mode (e.g. 4G, 3G, 2G, Wi-Fi only, etc.)
- How often do passengers change their devices? For instance, are they likely to change from a feature phone to smartphone, acquire a tablet or wearable device etc? Under what circumstances?
- During a typical train journey how much of your time will you spend using your mobile in total and a) actually connected to the Internet and b) using locally stored content (e.g. music on your device vs Spotify streaming)
- Preference for use of public Wi-Fi over personal mobile phones, whether free or paid for.
- Attitude towards log-in (one off and each journey) or automatic connection to on-train Wi-Fi
- How much importance they place on mobile connectivity for voice and data service whilst travelling by train; and
- What functions do people expect to be able to use on their mobile devices in the next 2 to 5 years? (Streaming HD video, multi-video conference calls etc?)
- Looking further ahead into the future, what innovations might be expected?

This list is non-exhaustive and bidders are expected to use their experience to develop and enhance the topic areas to meet the overall research objectives.