Communications Consumer Panel and ACOD response to call for evidence - Improving Mobile Communications for UK Rail Passengers

Introduction

The Communications Consumer Panel (the Panel) and the Advisory Committee for Older and Disabled People (ACOD) welcome the opportunity to respond to the DfT and DCMS' call for evidence on Improving Mobile Communications for UK Rail Passengers.

The Panel works to protect and promote people's interests in the communications sector. We are an independent statutory body set up under the Communications Act 2003. The Panel carries out research, provides advice and encourages Ofcom, governments, the EU, industry and others to look at issues through the eyes of consumers, citizens and micro businesses. The Panel pays particular attention to the needs of older people and people with disabilities, the needs of people in rural areas and people on low incomes, and the needs of micro businesses, which have many of the same problems as individual consumers. There are four members of the Panel who represent the interests of consumers in England, Northern Ireland, Scotland and Wales respectively. They liaise with the key stakeholders in the Nations to understand the perspectives of consumers in all parts of the UK and input these perspectives to the Panel's consideration of issues.

There is also cross-membership with Ofcom's Advisory Committee on Older and Disabled People. This means that Members, in their ACOD capacity, provide advice to Ofcom on issues relating to older and disabled people including television, radio and other content on services regulated by Ofcom as well as about issues concerning the postal sector.

Response

Mobile communications services – communication on the move, by voice, SMS and data – are now seen as essential services to UK consumers and citizens.

Business users – whether employed or self-employed – are now able to work in a more mobile way than ever before. Residential customers have also switched on to this trend and are adopting mobile communications to make their everyday life easier. Ofcom's latest research shows that 61% of the population now own/use a smartphone[1] and since the release of the first iPad, five years ago, take up of tablets has soared,

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[1] http://stakeholders.ofcom.org.uk/binaries/research/cmr/cmr14/UK_5.pdf

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with 54% of households owning one. Ofcom predicts that use of mobile devices will continue to rise.

The UK's consumers and citizens also rely on mobile communications, particularly mobile phones, for emergency situations and security purposes. The significance of this has been recognised by the Government, in its plans to roll-out an emergency alert system via mobile phones that will allow mobile phone users in particular areas to receive texts alerting them to emergencies or other issues in their particular location that they may need to be aware of or respond to in some form.[2]

According to the Office of Road and Rail, UK citizens are increasingly choosing to travel by rail. In 2014/15, over 1.6 billion passenger journeys were made by train, across the UK - and since 2008, the number of passenger journeys on the UK rail network has increased by 23%.[3] Yet mobile coverage on the rail network is sporadic and unreliable at best and non-existent in many areas.

The ideal passenger communications experience

A study by Global Wireless Solutions[4] in June 2014 through commuter stations in and around London revealed that 1 in 3 mobile internet tasks and 1 in 7 voice calls failed during the period of testing.

We agree with the ideal passenger communications experience set out in the report by Mott MacDonald, for Ofcom (Rail 'Not-spots' - Technical Solutions & Practical Issues') which sets out the issues and outlines a minimum and an ideal passenger communications experience[5]

We also agree that working towards the ideal passenger communications experience will require collaboration between mobile network operators (MNOs) and train operating companies (TOCs) and we believe that Ofcom appears to be best placed to facilitate this.

Barriers to achieving the ideal passenger communications experience are as summarized in the call for evidence document as: coverage, attenuation, commercial issues and passengers themselves/their choice of devices and contention between them.

We believe that rail passengers need a service that allows them to make, and receive calls, send and receive text messages, send and receive emails and browse the internet, throughout the duration of a train journey, regardless of topography, tunnels and network provider. Consumers and citizens travelling on public transport need to feel safe and be contactable in an emergency, as well as being able to contact others and plan their journey.

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[2] https://openpolicy.blog.gov.uk/wp-content/uploads/sites/35/2014/01/Trialling-a-new-emergency-alert-system-Cabinet-Office.pdf
[3] http://orr.gov.uk/__data/assets/pdf_file/0005/18095/passenger-rail-usage-2014-15-q4.pdf
[4] http://www.gwsolutions.com/PR20141014.php
[5] http://stakeholders.ofcom.org.uk/binaries/research/telecoms-research/not-spots/rail-not-spots.pdf

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We believe it is now vital that 3G and 4G data services are central to any plans to improve coverage, including coverage on the rail network, if the economy is to benefit as it should and the UK's productivity challenge be addressed. Our research demonstrates the importance of mobile coverage to micro businesses[6], which in aggregate employ around 8.3 million people and have a combined turnover of around £655 billion[7].

Business rail passengers present the ideal usage case for mobile data. They are normally sitting (able to use a laptop, tablet computer or smartphone), for extended periods of time, while moving at high speed across the country. Unlike drivers on motorways, they are fully able to use this 'dead time' to engage in economically beneficial activities. Given the very substantial investments being planned in the rail infrastructure for services such as HS2 seem to be principally driven by the benefits to the economy coming from reduced journey times, then the case for the comparatively small incremental investments in mobile infrastructure to the same end – making travel time more productive – would seem relatively easy to make.

Coverage

In our response to a consultation by the Department for Culture, Media and Sport (DCMS) in November 2014[8] *'Tackling Partial Not-Spots in Mobile Phone Coverage'*, we highlighted the fact that market factors on their own would not solve the coverage problem that exists in the UK and pressed for government intervention.

We welcome the progress so far, in the form of the voluntary, binding commitment agreed by the Secretary of State for Business, Industry and Skills, Sajid Javid MP and the major MNOs, announced in December 2014[9]. A Briefing Paper was prepared for Members of Parliament and published on 9 June 2015[10], which sets out the obligations and commitments of the major MNOs, the Government and Ofcom, in improving mobile coverage across the UK.

The options given in the Call for Evidence document include:

MNOs to build more standard base stations

We do not believe this would be an entirely sufficient solution to meet the needs of consumers or MNOs, since it would fail to resolve the problem of getting a signal when passing through a tunnel or deep cutting. However, it may contribute to the resolution of the problem of geographical not spots affecting rail routes.

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[6] http://www.communicationsconsumerpanel.org.uk/downloads/micro-business-qualitative-research-written-report-final.pdf
[7] http://www.publications.parliament.uk/pa/ld201415/ldhansrd/text/150303-0003.htm
[8] DCMS' consultation on Tackling Partial Not-Spots in Mobile Phone Coverage
[9] https://www.gov.uk/government/news/government-secures-landmark-deal-for-uk-mobile-phone-users
[10] www.parliament.uk/briefing-papers/SN07069.pdf

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Specialised, trackside installations

These types of solutions appear to help with getting a signal into tunnels and successful examples have been highlighted, such as the Channel Tunnel (on 3G) and Heathrow Express (free Wi-Fi). We therefore see value in using these more targeted solutions to cover areas that are left uncovered by macro solutions.

Attenuation

Our comments on potential solutions that have been outlined in the call for evidence document are below:

Install on-board repeaters or boosters

In order to stop train stock, particularly newer-built carriages, from blocking the signal, on-board repeaters or boosters - turning the carriage into a base station in its own right - could be an appropriate solution. A successful trial by Virgin trains on the West Coast line saw an improvement for customers of the networks involved in the trial and this solution was put into operation. Even distribution of the signal could be delivered by using an antenna system like the ones currently used in shopping centres, airports and stadia.

MNOs would have control over the repeaters, as only they are licensed to transmit in mobile frequencies and would need to work with TOCs to ensure that installation of the transmitters did not cause delays or cancellations to services.

Use the 'Global System for Mobile Communications – Railway' (GSM-R)[11]

The GSM-R system currently isn't designed to extend coverage to passengers - even though it offers over 95% of the track coverage and secure digital voice and data signal along the rail corridor – and the current GSM-R is used in Great Britain, but not in Northern Ireland, so this would not be a solution for the whole of the UK. The network was designed for a specific purpose and traffic management, spectrum and capacity would be too restricted for use by passengers. The system is due for replacement and it is therefore possible that some parts of it could be re-used and adapted to help to deliver a relevant, practical solution for rail passengers.

Public perception of health risks

Whichever option(s) were chosen, communicating the news to the public would require careful handling. There is particularly a public perception issue regarding the potential cancer risk in living or working near a base station. While the World Health

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[11] http://gsmr-info.com/

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Organisation has not found any evidence to support this[12], they recognise the public's fears; passengers and local residents would need reassurance.

Commercial Issues

We believe the key to addressing commercial concerns would be to engage with the MNOs that have invested in some of the trials that have been mentioned throughout this response – as in rolling out 3G coverage to the Channel Tunnel and Wi-Fi to the Heathrow Express.

It is important to note that to date market forces have not driven the deployment of good coverage solutions to rail passengers across the full breadth of the rail network. This is indicative of the economic challenges of providing these solutions. We strongly recommend that any solutions developed look to maximise the sharing of infrastructure across all MNOs so that customers of all networks can benefit from better service and the costs of provision can be shared across the largest possible base.

Summary

> Evidence suggests that there is a strong need for access to mobile communications across the breadth of the UK rail networks; this need is particularly evident in business users.

> There are relatively few technical solutions available, but of those that are available, some have been tried and tested. We feel the evidence points towards a combination of specialised, trackside installations and on-board repeaters or boosters.

> Commercial challenges still exist and MNOs should be encouraged to see the benefits of increased coverage, such as increased take-up and revenue.

> Negotiations between TOCs and MNOs should be coordinated by Ofcom or Government, where appropriate.

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[12] http://www.who.int/peh-emf/publications/facts/fs304/en/

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