House of Commons
Environment Food and Rural Affairs Committee
Call for Evidence on
Rural broadband and digital only services

Response from Mobile UK

June 2019

About Mobile UK

1. Mobile UK is the trade association for the UK's mobile network operators - EE, Telefonica UK (O2), Three and Vodafone. Our goal is to realise the power of mobile to improve the lives of our customers and the prosperity of the UK.

2. As mobile increasingly becomes the device of choice for running daily life both at home and at work, customers have come to expect more extensive coverage, more capacity and greater capabilities. Our role is to identify the barriers to progress, and work with all relevant parties to bring about change, be they Government, regulators, industry, consumers or citizens more generally.

Introduction

3. Mobile UK welcomes the opportunity to submit evidence to the Select Committee for Environment, Food and Rural Affairs' inquiry into rural broadband and digital only services.

4. Mobile UK recognises that it is ever more critical to have good quality mobile [and fixed] communications services. Digital services such as on-line banking, on-line retail and remote communications services take on greater importance, as physical services such as post offices, banks and transport services withdraw from the rural areas. Digital services are dependent on high quality fixed and mobile connectivity.

5. In the last 20 years, mobile operators have in aggregate invested over £45 billion in their networks (as well as the near £30 billion paid in spectrum licence fees). They continue to invest at a rate of over £2 billion pounds per year to meet the triple challenge of upgrading the technology, increasing network capacity and extending the geographic footprint across the UK.

6. Since the Committee's original inquiry, operators have made huge strides in improving mobile 4G coverage across the UK. Operators have been competitive, which has not only delivered some of the best prices, compared to international benchmarks, but has also driven the engineering excellence that leads to high quality networks for consumers.

7. The Government has set the ambition that the UK should be leader in 5G. The industry supports this ambition and supports the test bed programme (such as 'Urban Connected Communities' and 'Rural Connected Communities'), which seek to discover which applications will really benefit from the features of 5G (such as higher data rates, ultra-reliability & low latency).

8. In parallel to 5G deployment, it is also necessary to extend the 4G footprint, not only to improve service in rural areas but also to form the foundations for 5G in the future. Competition in the marketplace has taken coverage beyond the most optimistic forecasts of even a few years ago. But the costs of deploying into the remoter less populated areas can be very high, particularly the costs of backhaul, the costs of access tracks and the costs of getting power onto a site, in addition to the radio access equipment. With little or no marginal revenue to cover the capital and operating costs, such sites are heavily loss-making.

9. What is now needed is a way of getting into the hardest to reach areas, beyond what the market

would naturally deliver. To achieve this, the industry, in a joint initiative, has invested a considerable of management time and expertise to propose the Shared Rural Network. We discuss this proposal in more detail below.

10. The SRN proposal is the most cost effective (and environmentally low impact) means of exending coverage to 95% of the geographic landmass of the UK and by which each operator can get up to 92% of the landmass.

Summary of main points

11. Mobile UK recognises that it is ever more critical to have good quality mobile [and fixed] communications, as physical services such as post offices, banks and transport services withdraw from rural areas; digital services take on greater importance.
12. Mobile operators in the UK continue to invest at a rate of over £2 billion pounds per year to meet the triple challenge of upgrading technology, increasing network capacity and extending the geographic footprint across the UK.
13. To support this, Government must foster a pro-investment environment, one which sustains competition, delivers good prices for consumers and drives the engineering excellence that underpins the high-quality networks that serve the UK's consumers.
14. The geographic footprint of mobile networks has reached the limit of what competition in the market will deliver. The Government must provide support to cover the hardest to reach areas.
15. The industry has come together to propose a partnership with Government, which is the most cost-effective way of significantly increasing the mobile coverage in the UK, through what we have termed 'the Shared Rural Network'.
16. The proposal goes beyond what Ofcom is proposing for the 700MHz auction in 2020 and does so at a lesser cost to the public purse; it is more environmentally friendly (requiring fewer masts) and delivers on the Government's manifesto commitment to reach 95% coverage.
17. Very importantly, this proposal has the backing of all four operators, and, for this reason, has the most chance of success. We should not underestimate the benefits of arriving at a wide-ranging, cross-industry agreed solution that will get the job done.

Response to Questions:

What are the barriers to delivering superfast broadband and improved mobile phone coverage in rural areas at an affordable cost to consumers?

18. The barriers to delivering improved mobile coverage in the hardest to reach areas are considerable.
19. Since the Committee's original inquiry in 2015 (which did not cover mobile), enormous strides in improving network have been made. At that time only about 8% of the UK's landmass had any 4G coverage. Now only 8% of the landmass does not have any 4G coverage. There are considerable challenges, though, in taking coverage to the next level.
20. Examples of barriers that present themselves in the remoter areas are difficulty of finding suitable sites (with access to power, backhaul and access) and obtaining planning permission. Some of these difficulties can be overcome at a high cost (there are examples of backhaul costing up to £2 million in remote areas) but generally the extra sites do not reach enough new customers to cover the costs (even if shared between operators) and are thus heavily loss making.
21. With mobile now regarded as an essential service, though, the industry recognises that there is more to be done and that it is necessary to go beyond what the natural process of competition between private enterprises will deliver.

22. We address this point in our response to the next question.

23. It would also be helpful to the Committee's inquiry to be given a brief insight in the immense challenges that mobile operators overcome to achieve the high levels of satisfaction that consumers express. In the most recent survey by Ofcom, 84% of UK consumers said they were satisfied with their overall network performance.[1]

24. Mobile networks deliver among the most sophisticated services in the modern economy.

25. Those that develop, design and build them are among the most highly skilled members of the UK's workforce. While the transmission towers are really the only visible elements[2], the invisible parts, the core and radio access networks, are highly complex pieces of engineering and must be optimised to the greatest degree in order to deliver the best possible consumer experience.

26. In the face of this rising demand, mobile operators, for the time being at least, are using all their available technologies (2G, 3G, 4G and 5G to a limited extent), to maximise their respective capacities and to optimise the user experience.

27. The networks (across their roughly 36,000 sites) also have to be capable of passing customers seamlessly from one contiguous cell to the next without losing connection (a key differentiator that 'mobile' networks have over Wi-Fi).

28. Ofcom's most recent Customer Experience Report states "*once initiated, fewer than 1% of all voice calls were dropped due to loss of service, with no significant difference when comparing rurality, nations or technologies".*

29. 98.7% of 4G data connections are successful (with no difference between urban and rural) and 93.1% of 3G connections, with a slightly better experience for those in urban areas.

30. This information is particularly relevant in explaining why it is necessary for the planning regime to be sufficiently flexible to accommodate the needs of radio engineering. Placing transmitter sites where they are well concealed can severely impair the ability of the networks to meet customer expectations of continuous coverage.

31. The mobile sector would also benefit from a much more supportive environment at local authority level. At present, broadband policy features strongly but mobile hardly at all (with a few notable exceptions). Mobile UK has created its Building Mobile Britain campaign, with a view to promoting behaviours that will support mobile infrastructure deployment (political leadership, local barrier busting, and access to authority assets on standard terms.)

Is enough being done to address the disparity in coverage and digital service provision between rural and urban areas? What is the impact of the urban-rural digital divide on rural communities?

32. As set out above, mobile operators recognise that there is more to be done to improve coverage in the rural areas.

33. The industry, therefore, has come together to propose a partnership with Government that will very significantly increase the mobile coverage in the UK. The proposal goes beyond what Ofcom is proposing for the 700MHz auction in 2020 and does so at a lesser cost to the public purse; it is more environmentally friendly (requiring fewer masts), and delivers on the Government's manifesto commitment to reach 95% coverage.

34. We have called this proposal the **'Shared Rural Network'**, and indications are that it has been well received by Government and our wider stakeholders. For example, a group of rural representative bodies, in recognition of the importance of 4G coverage, has written to the Secretary of State for

[1] Ofcom: Consumer Experience Report, published 7 June 2019

[2] There currently around 36,000 transmission sites in the UK (ground-based towers and rooftops)

DCMS in such terms.[3]

35. The starting point for the proposal is that around 67% of the UK's landmass now has 4G coverage from all four operators and 92% of the UK's landmass has coverage from at least one operator. The difference of 25% are known as '*partial not-spots*'. Through a process of enhanced mast sharing, the partial not spots can be virtually eliminated, bringing coverage from all four operators up to 88%.

36. This would all be done at no cost to the public purse.

37. To go beyond this, and bring all operators to 90%, some Government support is needed to bring commercial services to the Home Office's Extended Area Service (the 292 sites of the emergency services network being built by the Home Office). This can be done at relatively small marginal cost to the existing EAS investment. To address what are currently '*total not-spots*', in the hardest to reach areas, we are proposing that additional network be built with Government capex and opex support, prioritising where there is community led demand, so that there is coverage up to 92% from four operators, delivering 95% of the UK landmass from at least one operator.

38. The proposal will also require some measures from the Government's side:

    1. **Reform of what telecoms infrastructure can be built under Permitted Development Rights**

       Mobile UK is pleased to see that the Government has publicly expressed an intention to consult on this topic in the very near future. Being able to build taller masts (where relevant to the context) under PD, will make it much easier to extend coverage into remote areas. The UK has some of the lowest rural towers in Europe (compare Sweden, for example, which has 70m towers).

    2. **Give business rates relief to the Shared Rural Network**

       This would be a similar measure to what exists for new fibre roll-out. It seems sensible not to burden investment, which is already marginal, with a tax that makes it even more marginal.

    3. **Make it easier to access public assets in Electronic Communications Code (ECC) terms**

       The Government has rightly reformed the ECC, to put telecoms on a similar footing (with respect to gaining access to sites) to power and water companies. The government wants the industry to spend more on connectivity and less on acquiring sites.

       So far, though, the reforms have only been partly successful. Land Tribunal decisions have largely confirmed the Government's policy intent. And an increasing number of landowners have accepted that we are in a new era.

       That said, many have not and some Government departments themselves are often the most reluctant and hesitant about working with the new valuation methodology. There needs to be strong leadership and encouragement from Government to work better with the reformed ECC.

---

3 https://www.cla.org.uk/sites/default/files/PDF%20Documents/General/Joint%20letter%20to%20DDCMS%20(5%20June%202019).pdf

39. Benefits over the Ofcom proposal

40. Ofcom has also made proposals about how best to extend mobile coverage into rural areas.

    In summary:

    - Two operators can bid in the next spectrum auction (in 2020) and receive a discount in return for a commitment to extend coverage to 90% of the UK.
    - The two operators would receive a discount of up to £400m each on the spectrum they win in the auction.
    - Each operator would be required to build a minimum of 500 new sites to meet their coverage commitments.

41. The industry feels that the Shared Rural network Proposal has greater benefits:

    - Only two operators would be obliged to deliver on the coverage extension.
    - It is not guaranteed that mobile operators may take on the obligation.
    - Delivers on the Government's manifesto coverage target of 95% of the UK, upto to two years earlier.
    - Brings all four operators up to c.90% coverage – rather than just two.
    - More certainty over elimination of partial not spots: it is not dependent on operator(s) buying coverage obligations in the auction.
    - Saves the taxpayer money as the £800m for the two subsidies offered on the next spectrum auction is greater than prospective cost of funding TNS roll-out.
    - Reduces the number of masts by identifying opportunities for operators to share infrastructure.
    - Would be ready to start deploying as soon as agreement is reached with the Government. No need to wait for 2020 auction.

42. Conclusions

43. With the importance that we all place on extending mobile coverage in rural areas, this is a timely moment for decision. The reality is that there are just two firm proposals for advancing coverage into the hardest to reach areas: Ofcom's 2020 auction proposals and the Shared Rural Network proposition that the industry has worked extremely hard to agree over the recent months and which has been put to DCMS and the Treasury for consideration.

44. Mobile UK and its members believe there are considerable benefits over the Ofcom proposal in the Shared Rural Network: firstly, it eliminates all partial not-spots; secondly, it gets additional coverage into the hardest to reach areas.

45. Mobile UK acknowledges that the Committee has suggested 'rural 'roaming' as a possible solution to improving coverage. But such an approach does not have the full support of industry, whereas the SRN does, and, for this reason, it has the greatest chance of success. We should not underestimate the benefits of arriving at a wide-ranging, agreed solution that will get the job done.

Is the current Universal Service Obligation (USO) adequate for the needs of rural communities and businesses and will it be effectively delivered? Given technological developments, including provision of 5G, will the USO provide the necessary level of connectivity for rural areas in the next decade?

46. Mobile UK has no comment on the USO obligation. It is worth noting, though, that Fixed Wireless Access/Mobile solutions can have a role in supporting access to broadband in areas where the cost of delivering a fixed solution is prohibitive. This approach addresses the wider issue that the introduction of the USO is trying to solve.

47. We support the Government's 'Rural Connected Communities' programme being initiated as part of the 5G test bed programme. The programme will which seek to discover which applications will really benefit from the features of 5G (such as higher data rates, ultra-reliability & low latency). In the meantime, customers will be well supported by 4G, which is a very capable service (as indeed is 3G).

Are the Government's recent policy and funding announcements for improving digital connectivity adequate for rural areas, and how robust are the plans for delivery?

48. Mobile UK welcomes the Government's recent announcement that it will consult on further planning reform in England. It will undoubtedly be easier to upgrade and extend mobile networks if more can be done under Permitted Development, and anomalies between the planning regime for 'fixed' and 'mobile' are eliminated.

How well do digital public services work in rural areas where there are poor internet connections? What support or alternatives are available for those in rural areas with poor or no connection to use digital public services and how effective is it?

49. No comments on this section.