Mobile UK

Congestion, Capacity, Carbon: Priorities for National Infrastructure Consultation on a National Infrastructure Assessment

Response from Mobile UK

January 2018

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 as a whole.

2. As mobile increasingly becomes the device of choice for running daily life both at home and at work, customers, quite rightly want better 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 respond to the National Infrastructure Commission's *Congestion, Capacity, Carbon: Priorities on an National Infrastructure Assessment* consultation.

4. Mobile operators are committed to meeting the rising demand from customers for more capacity and coverage throughout the UK. However, our ability to deliver is dependent on many factors and stakeholders across Government: the devolved nations, Local Authorities, metropolitan mayors, and Local Enterprise Partnerships, each of whom a contribution to make to ensure an environment for the rapid deployment of further mobile infrastructure.

5. Mobile UK's response primarily focuses on the deployment environment for mobile operators and how reform could support the business case for investment.

6. Mobile UK has previously submitted evidence to the NIC and stands ready to assist further to expand on points made in this submission.

7. This submission sets out Mobile UK's priorities for the National Infrasatructure Assessment (NIA) and, in addition to the set questions in the Call for Evidence.

Mobile Communication – Critical Infrastructure

8. Mobile communication is part of the UK's critical infrastructure and is integral to people's lives. At the end of December 2016, there were 92m mobile customers (including 52.4m 4G mobile subscriptions)[1]. 94% of the adult population has a mobile phone.

9. 90% of UK premises have indoor telephone call coverage from all four mobile networks, while 85% have indoor coverage for mobile data services. These figures are up from 85% and 80%

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[1] Ofcom – Communications Market Update, Q4 2016

respectively last year.[2]

10. The increase in coverage, capability and capacity of mobile networks has led to an explosion in demand for mobile data. 4G is driving greater volumes of data usage. A total of 156 petabytes was sent over all mobile networks in June 2017, a 47% increase over the previous year. The average volume of data consumed per subscriber now stands at 1.9 gigabytes per month up from 1.3 gigabytes in 2016.[3]

11. Improved 4G services, and the rollout of 5G has the potential to increase this demand further. It is expected that 5G will form the critical backbone of many of the UK's key services such as e-health, the internet of things and autonomous vehicles. Mobile networks are the modern-day highways and as such are critical to the nation's economic wellbeing.

12. Mobile data use has tripled in the last three years and is expected to increase by a further 700% by 2021. The average mobile subscriber use) is predicted to grow to 18 gigabytes by 2021.[4]

13. Mobile operators have played a central role in driving this progress by continually investing in their networks, value added services, and subscriber acquisition. In the current cycle mobile operators are investing around £2 billion per annum in new coverage, capacity and capability. In turn, business and consumer customers have shown extraordinary ingenuity in harnessing the power of mobile, to be more creative and productive, to offer new services, and to improve lives.

Answers to Specific Questions

5) What changes are needed to the regulatory framework or role of Government to ensure the UK invests for the long-term in globally competitive digital infrastructure?

The current approach of Government to mobile, while improving, continues to require significant reform if it is to achieve its goal of a leading digitally connected economy. The goal to deliver 5G requires a new approach to digital connectivity that joins up government at both a policy level and where Government is investing in significant public infrastructure projects.

Decisions across Government, regulators and the National Infrastructure Commission must take a long-term view and ensure that digital connectivity decisions are included across all infrastructure policy and development. Too often digital connectivity, and more specifically mobile connectivity, decisions are taken in isolation or at the end of wider infrastructure and development projects. This impacts efficiency of delivery and fails to take opportunities to enhance mobile deployment at an early stage of a project. Major public projects such as HS2 or Thameslink should be considered as to how they can proactively enhance mobile infrastructure deployment in collaboration rather than as individual infrastructure projects. Additionally, mobile connectivity and mobile infrastructure must be prioritised across the whole Government estate rather than simply within the Department for Digital, Culture, Media and Sport. If the Government wishes to truly lead in digital connectivity a more joined up approach is essential.

To this end, Mobile UK has asked Government to adopt a new 'Connectivity Impact Assessment'. This Assessment would require Government and other public bodies to consider the need for fixed and mobile broadband throughout the development of policy by having to complete an impact assessment on the impact a policy would have on connectivity. This would ensure that opportunities for investment to benefit mobile coverage are fully realised, and that potential unintended adverse impacts on coverage are negated. It would also ensure that major investments, such as HS2, are optimised for connectivity from the outset. Crucially, doing this at an early stage would be more effective and cost efficient for meeting demand for connectivity, rather than retro-fitting solutions at

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[2] Ofcom – Connected Nations, 2017
[3] Ofcom – Connected Nations, 2017
[4] CCS Insight, 2017

a later date.

6) What are the implications for digital infrastructure of increasing fixed and mobile convergence? What are the relative merits of adding more fibre incrementally over time compared to pursuing a comprehensive fibre to the premises strategy?

The deployment of fibre is critical to the continuing extension and enhancement of the mobile network. Mobile networks today require far more bandwidth and the current infrastructure is rapidly reaching capacity. Fibre forms the backhaul of mobile networks, rapidly moving data between mobile and fixed networks. Fibre rollout is therefore complementary to mobile deployment. Using fibre for mobile backhaul is becoming standard practice in advanced mobile networks.

Fibre will be crucial in the delivery of 5G so it is important to ensure we have a fibre strategy that takes the needs of mobile operators into consideration alongside any broader strategy for the delivery of fibre to homes and businesses.

It is important that decision makers are aware of the importance of fibre for mobile traffic offload and prioritise fibre roll-out to be complementary to mobile infrastructure deployment.

7) What are the key factors including planning, coordination and funding, which would encourage the commercial deployment of ubiquitous connectivity (including, but not only, in rural areas)? How can Government, Ofcom and the industry ensure this keeps pace with an increasingly digital society?

Planning, coordination and funding are all critical to the effective deployment of mobile infrastructure. However, there is often a lack of recognition of the multiple stakeholders involved in delivery and a focus purely on the mobile operators. Government, devolved administrations, local authorities, combined authorities and Local Enterprise Partnerships all have a role to play in enabling better connectivity.

Mobile UK has sought to focus mainly on the deployment environment within this response and seeks to highlight areas where reforms could improve the business case for investment and reduce deployment costs. It is also important to note that policy should not focus purely on a singular goal such as higher masts as this fails to recognise the many challenges faced by operators in various parts of the country. While higher masts may benefit more rural areas in urban areas small cell densification is likely to be a higher priority.

Additionally, mobile operators themselves have finite budgets with which to invest in their networks and national policy will impact on how that investment is prioritised. A focus on one area of policy, such as geographic coverage, will have implications on other areas such as urban densification. Policy needs to be much more sophisticated and multifaceted to recognise these competing needs.

While policy frameworks are set nationally they do not often translate easily at a local or regional level and often strategic planning fails to recognise mobile infrastructure at all. Many local authorities have not yet adopted a Local Plan or do not have digital strategies in place while of the 38 Local Enterprise Partnerships only 58% include a mention of mobile infrastructure within their Strategic Economic Plans.

The planning framework continues to remain as one of the biggest obstacles to effective mobile infrastructure deployment across the UK. Reform is urgently required and while it should be noted changes have been implemented in England and are advanced in Scotland, and Wales is currently working through a Mobile Action Plan and Northern Ireland is considering reform of its Permitted Development Rights regime, further reform is required and inconsistency across the UK will continue to hamper mobile infrastructure deployment.

On a day to day basis mobile operators continue to face huge variations in the interpretation of planning regulations and how they implement those regulations. This adds time, resources and costs into the deployment of mobile networks and can often result in some sites becoming unviable.

Additionally, Mobile UK is very aware of the resource constraints faced by Councils and concern has been raised that planning and development functions across local authorities have faced alarming budgetary cuts that are no longer sustainable. Since 2010 the National Audit Office has reported that budgets of planning departments have nearly halved (less than 46%).[5]

In the first instance, alterations to the existing planning regime should be expedited to help support mobile operators with their deployment plans and would have a significant impact in the short and medium term to extensions in connectivity. Such alterations should include continuing reform and changes to the Permitted Developments Rights regime, the removal of unnecessary planning restrictions and urgent action to remove discrepancies in the regimes between fixed and mobile.

A further obstacle to commercial deployment is getting coverage to the remotest parts of the UK, where operators face issues such as prohibitive costs (in relation to the traffic), access to suitable sites, with power and backhaul, and planning permission. Nevertheless, there can public value in extending coverage to remoter areas (in terms of inclusivity, safety and delivery of public services), and so Mobile UK is supportive in principle of initiatives such as the 4G infill project in Scotland, where government and operators partner to extend coverage. However, it is not just cost. There remain occasional difficulties in obtaining planning permission in areas of natural beauty, where there is a need for operators and planning authorities to work more closely together to find practical solutions. Finally, there needs to be clarity over the meaning of 'ubiquitous'. While it is important to have good connectivity where people work, live and travel (including tourists and ferries), there needs to be a realistic assessment of how near to 100% geographic it will ever be practical or worthwhile to reach, especially for multiple operators.

Moving forward it must be recognised that the changes outlined above will only boost existing coverage. To move forward, and importantly to ready the country for 5G, bolder ambition is required to support the UK's digital connectivity ambitions. Critically, digital connectivity must be embedded into the UK's strategic policy and planning framework and must include all stakeholders recognising that mobile operators alone are not the sole actors in building out these critical networks.

Mobile coverage and capacity must be prioritised into the planning process. Mobile coverage needs to be at the forefront of strategy and planning both at a national and local level. Pro-connectivity policies should be weaved into Local Plans and growth strategies and linked across national and subnational bodies, including Local Enterprise Partnerships.

Mobile UK believes the following key areas where reform is needed:

1. **A national approach to planning and deployment, incorporating regional priorities, and bringing about better consistency across the planning regime**

   Planning must be more consistent and streamlined across the whole country. Varied approaches and differing views on the interpretation of planning rules across local authorities significantly adds cost and impedes deployment adding time to roll-out plans. This can result in some areas of the country falling behind others. In some cases, the time taken to receive planning permission can vary between the fastest and the slowest authorities by as much as 12 months. Targets to achieve better growth across the UK will be extremely difficult if roll-out plans continue to be impeded by planning inconsistencies.

   It is therefore important that the right frameworks are put in place at the national and regional level that ensure planning decisions are consistent to provide mobile operators with adequate certainty and therefore encourage investment. Further consideration should be given to whether telecommunications sites could be appropriate under a notification procedure rather than full planning approval or a requirement for permitted development. Additionally, it important to build

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[5] National Audit Office

an element of flexibility into the system to ensure that where planning permission is expected the levels of planning permission are relaxed or removed if necessary (e.g. for small cells that are smaller and less intrusive than satellite dishes which do not require full planning permission).

Mobile UK is encouraged by the push to Regional Deals and Growth Deals which group local authorities together and believes that through these deals a revised national framework could be implemented. Combined Authorities could, for example, take planning decisions for critical economic infrastructure such as mobile sites and thus provide a much more holistic approach to our networks rather than the case-by-case basis currently used at each individual local authority.

Best practice guidance could also be streamlined and made more consistent if it were created and disseminated at a pan-local authority level. Mobile UK welcomes the work of the new metropolitan mayors who have indicated a desire to look at mobile connectivity across their areas.

2. Strategic planning

Mobile infrastructure deployment must be prioritised into strategic thinking and planning across central Government and in the devolved and local authorities. Pro-connectivity policies should be woven into Local Plans and growth strategies and linked across national and subnational bodies, including Local Enterprise Partnerships. This requires dedicated leadership from Government and coordination across central departments.

Across local authorities and Local Enterprise Partnerships, the focus on mobile is limited. Over half of Local Development Plans have yet to be adopted and 56% of LEP Strategic Economic Plans do not include mobile. This can often mean that in terms of planning mobile is not treated as a national network but only on a case by case basis as planning applications are processed. When combined with the reductions in resource across planning and development functions the risk is that the efficient roll out of mobile infrastructure could be compromised.

3. Digital Connectivity and Large-Scale Developments

A fully integrated approach to housing development where mobile and digital infrastructure is considered is required urgently. Planning and Building Regulations must promote digital infrastructure in developments which would enable more efficient deployment of mobile infrastructure. Alongside the 'Connectivity Impact Assessment' described earlier in this document Mobile UK believes that the Department for Communities and Local Government should consider a similar 'Connectivity Consideration' for all Large Scale Major Developments or redevelopments. Such a requirement would create a new requirement on developers at the outset of a project to consider mobile infrastructure.

The solutions required to meet increased demand – especially for high capacity in-building solutions – cannot be provided by the mobile industry alone. Mobile UK welcomed the Government and industry's approach to ensuring fixed line connectivity into new build homes (through a deal with Openreach and the Home Builders Federation); a similar approach for mobile connectivity should be considered to ensure that developers are obliged to meet certain connectivity requirements. An example where this would be beneficial is where line of site from a mast to a new

An example where this would be beneficial could be to limit instances where new developments are constructed that obscure the line of site from a mast. This is particularly relevant considering new calls from the G15 group of London's largest housing associations to build 'up not out'. While the mobile industry does not take a view on the building plans it is important that new buildings consider their impact on digital connectivity before they are built rather than at a later stage when networks could be obscured, and new emergency sites might be required.

A 'Connectivity Consideration' could incentivise early engagement between developers and the mobile industry to ensure minimal impact on existing mobile connectivity and ensuring new

infrastructure has the required capacity and coverage to meet expected demand.

4. **Facilitating the deployment of small cells for 5G**

A major change in approach will be required if the UK is to achieve wide-spread, high-speed 5G coverage. While recent reforms to the planning and regulatory regime for site rentals and continuity of communication in England are welcome, these were primarily designed to facilitate upgrades and site sharing on existing infrastructure.

We welcome Government's recently published 5G Strategy and especially the commitment to review the current regulatory and planning regime this year, to ensure it is fit for 5G rollout. However, given that new infrastructure required for 5G (especially small cell) is yet to be fully trialled and deployed, it is essential that the Government's approach is not too prescriptive. There needs to be a degree of flexibility in legislation to allow for telecoms companies to react nimbly to changing technologies.

5. **Facilitating access to public assets for connectivity purposes.**

Communications infrastructure is too often viewed as a revenue raising opportunity by local authorities rather than balancing this with the economic opportunity good of better digital connectivity. Mobile operators have found on several occasions that sites have become unfeasible due to rental demands which far exceed the market rate. Public sector assets are also, in the main, sites of last resort rather than a primary choice which is in contrast to our shared connectivity ambitions. The result is reduced coverage which impacts upon residents, businesses and the local authorities themselves which suffer from reduced connectivity.

Even after a Government commitment – as part of the agreement for MNOs to provide geographic coverage to 90% of the UK landmass by 2017 – access to public assets are still being brought forward at aggressively commercial rates. This is particularly true of the rate card brought forward for London. Government must be clear that they are prioritising the benefits of connectivity over revenue raising, and their approach to opening up public assets for mobile infrastructure must unequivocally demonstrate this.

Even at potentially viable sites, the business case for using public assets is undermined by onerous access conditions. Typically access to sites is on a 9-5 basis with prior notification required. This is out of step with the requirements of networks that functions 24-7. When mobile outages do occur, customers expect issues to be resolved quickly and with minimum of disruption to their services. This means that operators need to be able to access our equipment on site to do this. Restrictions around works hours and notice times also inhibit our ability to deploy, upgrade and repair.

There needs to be a step change in thinking around use of these public assets to ensure they deliver the greatest possible benefit for residents. This means considering the wider benefits of deployment, ensuring better access to sites, and a rate card framework in which operators not only have notional access to public assets, but they can do so on a cost-effective basis. This should be made available on a valuation basis as set out in the reformed Electronic Communications Code.

6. **Business Rates Relief**

Introduce Business Rates Relief for new mobile infrastructure deployment, similar to that introduced for fixed telecommunications infrastructure, especially for harder to reach areas to make marginal investment more viable.