



Response to Culture, Media & Sport Select Committee Inquiry into World Class Connectivity

About ISPA

The Internet Services Providers' Association (ISPA) is the trade association for companies involved in the provision of Internet Services in the UK with around 200 members from across the sector. ISPA represents a diverse set of companies, including access providers that build and own their own networks and access providers that rely on wholesale services to supply internet connectivity to their customers. Some of our members focus on delivering connectivity to businesses while others mainly serve consumers. The geographical coverage varies from a highly localised footprint to large (multi) national operators. Our members compete on a commercial basis in a highly competitive market. It is for this reason that ISPA's response offers a broad high-level industry view to complement individual company responses.

Introduction

ISPA welcomes the Committee's inquiry into superfast broadband. Internet connectivity is key to our everyday lives and ISPA is aware of the important role Parliament has to play on behalf of members' constituents.

As a whole, the UK has world class connectivity, with speeds increasing each year, low prices and investment from our members helping to deliver one of the most competitive markets in Europe. Indeed, Ofcom statistics show that the UK outperforms comparable European countries on a number of fronts as part of its European broadband scorecard research. We understand that to those in the hardest-to-reach areas hearing that there is good connectivity in other parts of the country will offer little comfort until superfast broadband reaches their community. We recognise that there are some areas of the country where more could be done to ensure that the transformative benefits of superfast connectivity are realised.

The Inquiry comes at an interesting time for the sector. The Government-funded BDUK rollout programme is progressing and "phase 3" of the programme is expected to reach the hardest-to-reach areas and the final 5% of premises. In addition, several of our members are making significant additional investment into building out infrastructure both on a national and local scale. Ofcom's Digital Communications Review is further posing a number of key strategic questions that could have a fundamental impact on the shape of the UK broadband market and the industry's potential ability to expand connectivity and invest. We believe that Parliament has a key role to play in this and to ensure that the transformative benefits of superfast broadband can be accessed across the UK while preserving the competitiveness of the UK connectivity market.

What role should Government, Ofcom and industry play in extending superfast broadband to hard-to-reach premises?

To a large degree the rollout of communications network is privately funded and we believe that the role of Government and Ofcom in these competitive parts of the market should be focused on enhancing



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competition. However, there are some areas of the UK where a rollout of communications infrastructure is not commercially viable and intervention may be needed.

Government's role

We believe there is a limited case for targeted Government intervention where the commercial rollout of communications infrastructure is not feasible. As demonstrated by BDUK research, there is a clear economic case for public investment with every pound invested adding £20 in net impact to the economy¹ and the UK's digital economy contributing 7.5% to the UK's GVA, however, we believe that public funding is only appropriate where the market does not deliver. Any intervention from the Government must take clear account of any direct and indirect effects on competition, both locally and nationally, and we believe that Parliament has a role to play in holding the Government to account.

Aside from public funding, a key role for Government is to set the right conditions for private sector investment. This includes efforts to improve access through wayleave reform to carry out and maintain work on privately-owned land, and reform of the Electronic Communications Code to create a clear, modern framework for access to masts, poles and ducts. We welcome the commitment from Government to continue to focus on reducing these barriers.

Government at the local level should also play its part, working with industry to take a more dynamic approach to wayleaves so that residents in council-owned and maintained dwellings can benefit from superfast broadband. By taking a more flexible approach to the granting of wayleaves, our members will be able to expand superfast broadband into areas, potentially including known urban 'not spot' areas. We would further call on local authorities to work closely and listen to local providers, where present, in delivering the next phase of superfast broadband rollout in the hardest to reach areas, properly exploring different technologies.

Ofcom

We believe that, similar to Government, Ofcom's key role is to set the right regulatory framework to ensure that open and competitive markets work for consumers. This requires Ofcom to adopt appropriate measures with regard to ensuring competition, maintaining a good environment for investment and guaranteeing consumer protection. Ofcom ensures this by determining if there is sufficient competition in the market, targeted regulation, consumer protection and the right environment for investment. In addition, Ofcom contributes to the public policy debate by publishing research and analysis on the market, quality of service and other matters.

¹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/257006/UK_Broadband_Impact_Study_-_Impact_Report_-_Nov_2013_-_Final.pdf



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We believe that Ofcom's role with regard to extending superfast broadband to hard-to-reach premises is broadly speaking in line with its general role of being the key regulator for communications service providers. Beyond its role as set out above, ISPA feels that Ofcom's most effective role is to provide independent advice to Government and consumer guidance on the Internet, including technologies, coverage and factsheets. As an organisation representing a large, broad cross section of the industry, we call on Ofcom to put a greater effort to include the breadth of ISPs in its research and guidance for consumers and businesses. The current research tends to focus on a subset of larger consumer providers and we feel the true scale of the sector has, to date, been somewhat neglected.

Industry

When looking at the role of industry it is important to look at the breadth and depth of the industry and to recognise that connectivity can be provided by using a variety of technical solutions. Some examples include:

- **Leveraging the existing copper network** – Both BT's commercially funded and the BDUK-part funded superfast deployments deliver predominantly Fibre-to-the-Cabinet (FTTC) and then utilises the existing copper network to deliver superfast speeds. Coverage is such that the UK is expected to reach 95% by 2017. G-Fast technology is currently being trialled and could deliver ultrafast speeds using existing copper infrastructure.
- **Fibre-to-the-Premises (FTTP)** – Some ISPA members offer pure fibre connectivity to buildings and residences. For example, Gigaclear focuses on fibre-connectivity to rural areas, others, such as Hyperoptic, focus on urban areas and others, such as Keycom/Vision Fibre Media, on military bases and educational establishments. BSkyB, TalkTalk and CityFibre are also collaborating on fibre rollout in the City of York. Community alternative networks, most notably B4RN, have built their own FTTP network in rural Cumbria. BT is also deploying some FTTP as part of its commercial and BDUK funded projects in both city and rural areas.
- Virgin Media's **cable network** offers superfast broadband to a large proportion of the UK with its recent £3bn investment set to take its footprint from 13m to 17m premises, approximately two-thirds of the UK
- **Wireless** – In some areas of the UK it is not feasible to rely on copper or fibre connections and a number of wireless solutions including Fixed Wireless or Wimax are being used to deliver connectivity in specific geographic areas. Some of our members that specialise in this include Air-Band, Boundless Communications, Kijoma, Kencomp, LN Communications, Quickline Communications, Rural Internet, Spectrum, Village Networks, Vispa, Wessex Internet and Wispire.
- **Satellite** – Satellite technology has progressed significantly and can today deliver up to superfast speeds. It is available across the UK but is particularly useful in areas where the rollout of networks on the ground is less feasible. ISPA members that offer satellite connectivity include Avanti, Avonline, Broadband Wherever and Satellite Internet.



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In addition to the providers mentioned a number of our members are relying on wholesale services to offer connectivity, thereby increasing competition and customer choice, and other members are specifically focusing on serving the business market with specialised products.

Is there sufficient competition in these markets? If not, how can any market failures best be addressed given the investments already made?

The UK generally has a very competitive market with a large number of providers competing for business. Within this there are those that operate their own network, those that part-operate their own network and those that resell wholesale products with some adding specific managed services. In urban and densely populated areas there is generally a strong level of infrastructure competition with competing physical networks and with a number of large consumer ISPs as well as smaller providers selling more specialist services. In the harder to reach areas, which are often more sparsely populated, there are fewer competing networks and providers and so less infrastructure competition. In these areas, most providers rely on service level competition reselling Openreach services and so are dependent on the availability of wholesale products from Openreach, either through the commercial deployment or the BDUK programme, unless other providers decide to rollout networks using different technology and offer wholesale services.

It is important that any future Government-supported rollout does not damage competition and the efforts, risk and investments already made by providers. The use of funds should be targeted at areas that are not already served by a network provider and all network solutions, including wireless and satellite, should be considered. Practical experience from some of our smaller members suggests that the BDUK process was conducted in such a way that it has impacted on competition and the ability to expand networks in local areas. If the Committee wishes to explore the potential of public funds being used to overbuild existing networks, ISPA would be able to put the Committee in contact with members.

As we move towards more investment in phase 3 of the BDUK programme and discussions turn to a broadband Universal Service Obligation, it will be important to learn from phases 1 and 2. ISPA recommends an approach that is based on the following principles: an open procurement process, transparency, smaller procurement lots for contracts, open access, and as the challenge becomes greater fixing different challenges with hybrid solutions involving fixed and wireless connectivity.

What are the commercial, financial and technical challenges the programme faces in reaching the final 5%? What technologies exist to overcome them? What investment is required, by whom and for what return?

The challenges involved in reaching the final 5% have been well documented. These include the topography and geography of the UK, the way in which communications network have been built up over the years, whether technologies can reach rural areas effectively and efficiently, the return on investment for private companies and the high cost of upgrading networks in sparsely populated areas.



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They are also not unique to the broadband sector and also affect the delivery of other utilities to rural areas. For example, not all premises are connected to the National Grid.

As outlined in question 1 above there a number of companies serving targeted areas using a variety of technologies, including fixed, wireless, satellite and hybrid solutions. A large number of providers tendered for the BDUK phase 3 pilot projects for the final 5%. Seven of the eight projects, a number delivered by ISPA members, have progressed to deployment stage. The results of these trials and lessons to be learned are being analysed and will provide important guidance for future delivery of connectivity to the final 5%.

Given that in practice a Universal Service Obligation could not capture 100% of households, what should a USO for broadband look like?

ISPA supports the objective of a ubiquitous broadband coverage throughout the UK and are pleased that Government, industry and Parliament are debating a USO. The BDUK programme aims to rollout basic broadband of 2Mbps to all users by 2016. We are aware that both Government and Ofcom have called for an obligation to be set at varying speeds and BT has recently announced a commitment to a USO of 5-10mbps subject to regulatory support.

It is now the right time to fully debate the terms and details of the USO and what constitutes a good quality of service. While it may seem attractive to focus on a specific headline speed, we feel that any commitment should rather be based on the ability to deliver everyday services and applications that meet users' everyday needs. Services that could be considered as part of these essential services could include, for example, accessing government services, web browsing, email, VoIP, and decent quality streaming services. This would require an element of future-proofing to ensure that it remained responsive to user demands.

When looking at a reform of the current USO it is important to consider the regulatory context, mainly the Universal Service Directive. The Directive only applies to the provision of a single narrow-band connection² and specifies that providers that have been designated as universal service providers (BT and Kcom in the UK) need to provide "data communications at data rates that are sufficient to permit functional Internet access, taking into account prevailing technologies used by the majority of subscribers and technological feasibility." This has been interpreted by Ofcom as 28.8 kbit/s in a non-binding guidance document from 2003. It is further important to note that the Directive allows for two funding mechanisms in cases where the delivery of a USO is regarded to be an unfair burden on the designated provider: 1) compensation via public funds, 2) sharing of costs between providers. The

² The Directive does not prevent Member States from setting a USO for broadband connections. So far, a few Member States (Belgium, Croatia, Finland, Malta, Spain, Sweden and, only for disabled end-users, Latvia) have decided to include broadband connections within the scope of universal service (from 144kbps up to 1 and 4 Mbps).



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Committee may also be interested in a current consultation by the European Commission on the “evaluation and the review of the regulatory framework for electronic communications networks and services” which includes the EU rules for setting USOs.

Whilst we are supportive of the objective of a broadband USO, there are a number of challenges involved achieving universal coverage. We believe that the following points should be taken into account when considering setting a revised USO for the UK:

- What services should be considered as “functional internet access”?
- Is it necessary to set a specific speed or would it be more future-proof to consider service delivery that meet user needs?
- How should the delivery of the USO be financed, i.e. should the costs be borne by the designated provider, be covered by public funds or through cost sharing between all or some providers that are active in the market?
- If public funding is considered the most appropriate funding mechanism, would the delivery of a USO be the most effective use of public money to ensure that connectivity is delivered to hard-to-reach areas?
- If the sharing of costs is considered the most appropriate funding mechanism, would this lead to negative effects on competition?

What are other countries doing to reach ‘not-spots’? How affordable are their solutions?

When comparing the UK to other countries it is important to consider that each country offers different baseline scenarios and challenges. This is to some extent a result of differences in geography and the degree to which the population lives in rural rather than urban areas but it is also a reflection of the structure of the broadband market and the existing network infrastructure. Some countries may, for example, have a broader fibre to the premise coverage than the UK but a less competitive market.

Should Government be investing more in research and development into finding innovative solutions to meet the communication needs of remote communities?

Overall, we believe that ISPs and their suppliers are best placed to find and develop innovative solutions to meet the communications needs of remote communities. However, Government can help to support these efforts, e.g. through measures such as the £10 million innovation fund or support for research in areas such as 5G. Any use of public funds must not damage private investment and commercially-funded networks. An effective way to address this

Are BT and other communication companies investing sufficiently themselves in reaching these groups?



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UK ISPs have significantly invested in infrastructure. Ofcom reports that the total capital expenditure of the four largest fixed broadband operators (BT, Sky, TalkTalk and Virgin Media) has averaged c£3.7bn per annum in the last three years, while that of the mobile operators averaged c£2.0bn per annum.³ In addition, a number of smaller providers have made significant investments that are not included in this figure and some of this investment has been targeted specifically at reaching rural areas. It has to be emphasised though that communications companies cannot ignore commercial realities and ultimately need to ensure that they can see a return on investment. It is for this reason that public support may be needed to reach some rural areas.

How have the existing Government broadband programmes been delivered?

The rollout of phase 1 and 2 have been well-documented, with previous parliamentary inquiries from the Environment, Food & Rural Affairs and Public Accounts Committees with assistance from the NAO. It is widely known that BT emerged as the main provider for phase 1 and 2 funding, with a few local programmes deciding to use other providers to deliver projects, for example Gigaclear and Herefordshire and Gloucestershire as part of the joint Fastershire project.

Within this framework, the delivery to date has raised a number of questions. These include transparency, for instance the publication of detailed postcode data; the potential for overbuilding of existing networks using public money; certain technologies, such as fixed wireless, were not deemed to be superfast; and overall impact on competition. Whilst ISPA does not offer a detailed view on these questions, it is vital that any further public investment in broadband – be it a USO or BDUK phase 3 - learns lessons from previous experiences and any questions raised or evidence received are properly assessed.

Overall, the programme is on course to deliver its 95% coverage target by 2017, further boosting the UK's world class connectivity. Under state aid rules, the existing BDUK broadband scheme has a clawback mechanism where Government receives a repayment of its original investment if take-up reaches a certain amounts. This additional sets of funds can then be used to reinvest in the programme.

The priority is now to meet the challenge of the harder to reach areas so that the transformative benefits of superfast broadband are felt throughout the UK.

³ http://stakeholders.ofcom.org.uk/binaries/consultations/dcr_discussion/summary/digital-comms-review.pdf