**Broadband Stakeholder Group**

**Consultation response to Ofcom's Strategic Review of Digital Communications**

**October 2015**

> The Broadband Stakeholder Group (BSG) is the UK government's leading advisory group on broadband. It provides a neutral forum for organisations across the converging broadband value-chain to discuss and resolve key policy, regulatory and commercial issues, with the ultimate aim of helping to create a strong and competitive UK knowledge economy.
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> BSG sponsors are made up of a wide range of companies that have a variety of views on the best industry model in telecommunications. Where there is disagreement on the approach that Ofcom should take we have outlined the broad views of sponsors.

**Executive Summary**

The Broadband Stakeholder Group welcomes the opportunity to respond to Ofcom's Strategic Review of Digital Communications discussion document. The last 10 years have seen a transformation; in the make-up of the telecoms market, in the expanded coverage and capacity that companies in that market can deliver and in the importance of the services that run over that infrastructure to consumers, citizens and businesses alike. We are now at a transition point between 'standard' (2+ Mbit/s) and 'superfast' (24+ Mbit/s) broadband, the widespread adoption of 4G, the start of ultrafast services, the bundling of services and we have a greater understanding of the likely increases in data consumption.

Competition, facilitated in many instances by targeted regulatory and policy interventions, has delivered overwhelmingly positive outcomes for users since the Telecoms Strategic Review. This success has played a role in ensuring that digital infrastructure now underpins all areas of the economy, with internet applications playing an often disruptive but undoubtedly positive role, and lies at the heart of the UK's critical national infrastructure.

Until recently, the benefits gained from being connected for the user, be that consumer, citizen, business or Government, were largely additional to what can be accomplished in the non-digital or paper world. Today, the necessity of being online means that those who are not, are in danger of suffering a 'digital detriment'. Whether it be the cost of transacting offline vs online, the 'digital by

default' of government services or the missed growth opportunities for businesses, having access to digital connectivity is as important as access to other utilities – and we are now seeing homes have access to superfast broadband which don't have main gas or electricity. Despite this importance, the BSG firmly welcomes Ofcom's commitment to its competition-based philosophy rather than to pursue a greater degree of central planning – it is the innovation in network and service delivery, driven by competition, which has brought us the positive outcomes in capability and take-up.

That is not to say that there are not challenges facing industry, regulators and policy makers. Prime amongst these is in meeting user expectations, which are continually increasing as what they perceive to be the extraordinary becomes, to them, the ordinary. Greater coverage, capacity and quality of experience – be in fixed or mobile services – will be demanded, even in areas where it is not commercially viable to provide them. This demand will drive the continued strong growth in data consumption that we have seen over the past few years, although we do note that future growth is not necessarily dependent on continued growth in peak bandwidth, particularly in the fixed domestic market[1].

The improvements necessary to meet these demands will take place against a global backdrop of a changing structure in the delivery services with the proliferation of 'over-the-top' services and in markets themselves due to consolidation.

**Q1: Do stakeholders agree that promoting effective and sustainable competition remains an appropriate strategy to deliver efficient investment and widespread availability of services for the majority of consumers, whilst noting the need for complementary public policy action for harder to reach areas across the UK?**

The BSG firmly supports an approach that prioritises competition to deliver beneficial outcomes for users, accompanied by limited and targeted interventions in areas where market failure occurs.

Competition, at the infrastructure level and at the network and service level over Openreach infrastructure, has delivered substantial benefits to the end-user since the Telecoms Strategic Review, not least; lower prices, a more capable and reliable service encouraging higher take-up.

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[1] See BSG demand research: Demand for Domestic Bandwidth, Out-of-home Internet Use, Small Businesses' Connectivity Requirements

Although some BSG sponsors believe that the precise approach needed to ensure effective levels of competition is in need of revision due to changing landscape, be that due to the transition to superfast broadband, network and/or service convergence, we are clear that Ofcom's approach should be market-focused.

**Q2: Would alternative models deliver better outcomes for consumers in terms of investment, availability and price?**

Meeting rising user demand for better quality connectivity at a price point that leads to high levels of take-up is the main goal of the next 10 years. To do so will require yet more investment and innovation that we believe is best delivered by a competitive market place.

Given the greater dependence that we have on digital networks, competition at all levels , be it in fixed or mobile, is to be encouraged to both help drive advances in quality as well as to improve the resilience of the overall UK digital communications market.

Clearly however, there are limits to the commercial viability of infrastructure competition. In fixed, whilst we may see increased competition in urban areas both through Virgin Media's expansion, through new entrants like CityFibre and in rural areas by companies such as Gigaclear, there may however be some remaining areas in which it the commercial case for deployment is challenging.

Network and service level competition has helped to produce competitive outcomes, particularly in the form of low prices and high take-up, in areas where infrastructure competition was not economically viable. The Openreach model has also meant that areas which would not otherwise be commercially viable have received investment.

We believe that all models should be encouraged and allowed to exist alongside each other.

**Q3: We are interested in stakeholders' views on the likely future challenges for fixed and mobile service availability. Can a 'good' level of availability for particular services be defined? What options are there for policy makers to do more to extend availability to areas that may otherwise not be commercially viable or take longer to cover?**

'Good' should not be solely defined using coverage and capacity metrics but should take into account the variety of factors that determine end-user experience. Indeed over superfast (24+ Mbit/s) speeds or even above 10+ Mbit/s, bandwidth is no longer the dominant determining factor in the end-user

quality of experience. Work on determining a 'good' quality of experience, and as importantly, how to quantifiably measure that, is an important area of work and we commend Ofcom for raising this issue.

End-user expectations will continue to rise and evolve. Addressing these expectations and demands will require more ubiquitous, resilient and denser networks. Differing investment scenarios mean that some areas will always benefit from upgrades before others.

Our demand research shows that next generation access networks will be required by all small businesses by 2025 as upload requirements exceed that available on ADSL lines[2]. Similarly it shows that the median household in the UK will have a downstream requirement of at least 19 Mbit/s by 2023, with the top 1% needing upwards of 35-40 Mbit/s[3]. This seems to suggest that superfast connections may become a necessary 'floor' over the next 5-10 years for SMEs. Households may be able to access a 'good' service (e.g. with access to HD video streams and efficient browsing) at lower speeds. That is why the BSG supports the Government in examining ways in which to further drive out superfast broadband coverage beyond its stated aim of 95% of UK premises by 2017, although this does not necessarily mean that direct intervention or the public funding of infrastructure is required.

In mobile, users require both greater coverage and capacity. Our report on out-of-home internet use[4] looked at some of the drivers of this growth – in particular on the fixed and variable constraints on demand such as larger data allowances and battery life. In order to meet this demand, mobile networks will simultaneously have to grow their footprint whilst becoming denser, particularly as we move towards 5G. WiFi has and will continue to play an important role in areas of high demand where users want to move seamlessly from the cellular to WiFi networks and vice versa in order to have the best connection.

The BSG believes that to lower the instance of market failure several policy and regulatory levers could be used to remove barriers to investment. In both fixed and wireless sectors, deployments are hindered by slow and inconsistent planning processes and, in some cases, parts of local councils actively hindering deployments. Industry and central Government must continue to engage with local bodies to ensure that these issues are continually refined. Central Government has made several improvements to the planning regime and is considering others, and has also supported industry initiatives with supportive councils around issues such as producing a standardised wayleave

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[2] Broadband Stakeholder Group/Rob Kenny, The Broadband Requirements of Small Businesses in the UK
[3] Broadband Stakeholder Group/Rob Kenny, Domestic Demand for Bandwidth
[4] Broadband Stakeholder Group/Rob Kenny, Out-of-home internet usage

agreement. The Government is also in the process of transposing the High Speed Broadband Cost Reduction Directive (2014/61/EU) which may facilitate the use of other utilities' infrastructure by Communications Providers, which could help to reduce costs of deployment.

Improvements are also needed in how land is brought into the wireless sector, with mobile operators and wholesale providers voicing concerns around land rents and access to infrastructure. The Electronic Communications Code which governs the relationship between network operators and land owners is currently being reviewed with industry seeking improvements both in its content and application.

Whilst some of these issues are greater than others, the effect of marginal gains means that they could provide a greater boost to network deployment that it would first appear.

Due to the economic and technological requirements at play, no one technology or indeed business case is able to suitably solve the problem of the last 5% of UK premises. Therefore Ofcom should work with the Government to ensure that the outcomes of the market test pilots are taken into consideration so that the solution allows for a range of technologies encompassing both wired and wireless offerings as well as allowing for innovative funding solutions.

In deciding how services could be paid for in areas where it is not commercially viable to serve these expectations, it is important to look at both expectations and requirements, i.e. what the end-user needs to actively participate either as a citizen, consumer or business. The two are not necessarily the same and it is important to bear this in mind when determining where the cost for increasing the coverage or capacity of networks should fall. For instance, a user may wish to be able to watch multiple streams of 4K content at home but not being able to do so is unlikely to result in digital detriment. Arguably, this would be a private benefit and should be borne at least to some extent by the user.

**Q4: Do different types of convergence and their effect on overall market structures suggest the need for changes in overarching regulatory strategy or specific policies? Are there new competition or wider policy challenges that will emerge as a result? What evidence is available today on such challenges?**

Whilst BSG sponsors believe that the overarching regulatory structure in the form of the European Union's Regulatory Framework for Electronic Communications (the 'Framework') has delivered

generally positive outcomes for the end-user over the last 10 years, there is a range of opinions on its potential for meeting the opportunities and challenges of the next 10 years.

All sponsors believe that changes are required and that there is scope for deregulation in some areas where no market power is found. There are opposing opinions of the scale of change required with some believing that the current structures can remain in place and deliver positive outcomes for the user. However, others believe that the regulation of services rather than infrastructure hinders innovation and requires radical change.

**Q5: Do you think that current regulatory and competition tools are suitable to address competition concerns in concentrated markets with no single firm dominance? If not, what changes do you think should be considered in this regard and why?**

The BSG has no view on this subject other than to note that whilst oligopolistic market structures can result in effective competition and positive outcomes for the user, it is right that Ofcom continues to engage with BEREC's work in this area.

**Q6: What do you think is the scope for sustainable end-to-end competition in the provision of fixed communications services? Do you think that the potential for competition to vary by geography will change? What might this imply in terms of available regulatory approaches to deliver effective and sustainable competition in future?**
**Q7: Do you think that some form of access regulation is likely to continue to be needed in the future? If so, do you think we should continue to assess the appropriate form on a case by case basis or is it possible to set out a clear strategic preference for a particular approach (for example, a focus on passive remedies)?**

The UK appears to be enjoying a period of relatively high and sustained investment from traditional players such as BT, Virgin and the mobile operators as well as from new operators such as UK Broadband and CityFibre etc. This investment is expanding the footprint in which infrastructure competition occurs in the UK. This is to be welcomed, for as outlined above, end-to-end competition should be promoted as far as possible, although there are clearly commercial limits to its viability.

Geography is a major factor in determining the feasibility of infrastructure competition. The potential for increasing levels of competition in some geographic areas and markets are therefore likely to be greater in some than in others. In order to remedy this, Ofcom needs to consider any variations in competition by geography when considering future regulation. This could open up the possibility of deregulation in a range of markets. For the foreseeable future, however, it is likely that access regulation will continue to play a prominent role to address continuing bottlenecks.

**Q8: Do you agree that full end-to-end infrastructure competition in mobile, where viable, is the best means to secure good consumer outcomes? Would alternatives to our current strategy improve these outcomes, and if so, how?**

**Q9: In future, might new mobile competition issues arise that could affect consumer outcomes? If so, what are these concerns, and what might give rise to them?**

The BSG believes that end-to-end infrastructure competition can deliver the greatest innovation benefits. However, it comes with significant cost inefficiencies and is not viable in many areas and in some cases, other forms of competition (network and/or service competition) are more appropriate and efficient. BSG sponsors have a range of opinions on the proposed mergers currently underway but it would not be appropriate for us to comment on these directly.

**Q10: Does the bundling of a range of digital communications services, including some which may demonstrate enduring competition problems individually, present new competition challenges? If so, how might these issues be resolved through regulation, and does Ofcom have the necessary tools available?**

Bundling of services is not a new trend in the UK communications market with 9% of households taking a combined fixed voice and broadband product in 2005[5]. This has grown to 27% of households although that has remained stable since 2012. The largest growth has been in the percentage of households (25%) taking fixed voice, broadband and TV products although even this has shown signs of slowing.

Bundling can deliver tangible benefits to the end-user in the form of discounted services, unified billing and a common contact for assistance. For industry, this is likely to result in lower churn and reduced costs. However, there is potential for bundling, particularly of three or more services, to have a detrimental impact on competition and the end-user. This could happen if users are locked-in to bundles which deliver a poor end-user experience but are complex or costly to switch from, or if different regulatory principles apply to constituents of the bundle,reducing the positive benefits of effective competition today. Similarly, end-users could suffer from a lack of price transparency or 'drip-pricing'[6].

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[5] Ofcom, Communications Market Report 2015
[6] OECD Digital Economy Paper, Broadband Bundling: Trends and Policy Implications

It appears too early to tell if bundling will result in enduring competition problems. Over-the-top (OTT) operators will likely have a key role in determining whether any problems materialise by offering an often low cost video and voice alternative to that offered by network operators. Should problems materialise, then it is likely that some sort of wholesale must-offer remedy would be most appropriate although this would need to be carefully balanced against wider competitive concerns.

**Q11: What might be the most appropriate regulatory approaches to the pricing of wholesale access to new and, risky investments in enduring bottlenecks in future?**
**Q12: How might such pricing approaches need to evolve over the longer term? For example, when and how should regulated pricing move from pricing freedom towards more traditional charge controls without undermining incentives for further future investment?**
**Q13: Are there any actual or potential sources of discrimination that may undermine effective competition under the current model of functional separation? What is the evidence for such concerns?**
**Q14: Are there wider concerns relating to good consumer outcomes that may suggest the need for a new regulatory approach to Openreach?**
**Q15: Are there specific areas of the current Undertakings and functional separation that require amending in light of market developments since 2005?**
**Q16: Could structural separation address any concerns identified more effectively than functional separation? What are the advantages and challenges associated with such an approach?**

Within the BSG, there is a broad range of opinion on the necessity, desirability and timing of any change in the regulatory approach to Openreach. These are spelled out in BSG sponsor's individual responses.

**Q17: What do stakeholders think are the greatest risks to continuing effective consumer engagement and empowerment?**
**Q18: What indicators should Ofcom monitor in order to get an early warning of demand-side issues?**
**Q19: What options might be considered to address concerns about consumer empowerment at each stage of the decision-making process (access, assess, act)? What more might be required in terms of information provision, switching and measures to help consumers assess the information available to them? What role may Ofcom have to play compared to other stakeholders (including industry)?**

As noted above, bundling has the potential to bring substantive benefits to users (both consumers and small businesses), but also poses potential challenges in the form of adding additional complexity to a fast moving market place. Additional complexity is therefore likely to be the largest risk to effective consumer empowerment.

Nudges have been particularly effective in the public sector, although there are suggestions that it may not work to the same extent in increasing or reducing churn in the private sector[7]. Identifying a problem around switching – and some BSG members argue that the differing rules for switching components of 'quad play' bundles are already leading to potential asymmetries – is best done through the bench marking of switching rates. However, there would be some concern if these were measured against traditional utilities. If a problem was identified, then attempting to use behavioural science to increase consumer empowerment is one of the solutions worth considering.

A wider issue revolves around the quality of experience that users seek and receive. If consumers are to move towards a greater level of understanding of the issues affecting their end experience, then this will require a push from both industry and Ofcom.

**Q20: Are there examples in competitive or uncompetitive sections of the market where providers are not currently delivering adequate quality of services to consumers? What might be causing such outcomes?**
**Q21: What further options, if any, should Ofcom consider to secure better quality of service in the digital communications sectors?**

The services run over digital infrastructure are becoming ever more pervasive and critical to the end-user. This is particularly the case for businesses, who are more likely to prioritise reliability over price than consumers. Providing sufficient levels of quality of service – from installation time to customer service satisfaction – to users remains a challenge for industry as a whole.

Strong competition at network and service levels has resulted in end-users generally benefiting from good value for money in terms of both coverage and capacity at 'standard' broadband'. Some BSG members believe that this is not being replicated in the superfast/FTTC world. All agree though that the general focus on headline speed, from all stakeholders may have led to unrealistic expectations of some users on the cost, and their willingness to pay, of delivering higher quality service – and may have diverted attention from wider quality of experience issues.

Competition remains the best incentive for improving quality, necessary to respond to both some user (particularly business) demands and to allow greater proliferation of services involving e-health. Where infrastructure competition is not viable, or where it may fail to deliver improvements, then coordination

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[7] Willis, When Nudges Fail: Slippery Defaults

of best practice or improved transparency for users are solutions which should incentivise industry to improve.

**Q22: Might there be future opportunities to narrow the focus of ex ante economic regulation whilst still protecting consumers against poorer outcomes?**

The BSG has no view on this question.

**Q23: Where might future network evolutions, including network retirement, offer opportunities for deregulation whilst still supporting good consumer outcomes?**
**Q24: What are the potential competition and consumer protection implications of the rise of OTT services? Might the adoption of such services enable future deregulation without raising the risk of consumer harm?**
**Q25: Are there any areas where you think that regulation could be better targeted or removed in future? What would be the benefit of deregulation as well as the main risks to consumers and how these could be mitigated? Please provide evidence to support your proposals.**

The BSG believes that the convergence in services could remove the need for regulation in a number of areas, particularly voice-specific access regulation.

Over the time of this review, the switch-off of the Public Switched Telephone Network (PSTN), and the transition to all voice, including mobile, being delivered as IP data packets is highly probable. This would bring wider public policy challenges around managing the transition period and the resilience of emergency calls. The trend, albeit gradual, towards households that only utilise voice services on mobile devices and a pragmatic approach to maintaining access to emergency services as technology evolves of battery back-up should help to alleviate these concerns.

In order to galvanise wider industry (including telephone manufacturers etc) to overcome these challenges, Ofcom should consider whether it should, in coordination with industry and the Government, set a date for the switch-off of the PSTN. This would be accompanied by the creation of a consumer facing body that would be able to coordinate the messaging around this process.

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