Future Broadband
Policy approach to next generation access

BSG Response

Introduction

The UK is a world leader in terms of the availability and take-up of the first generation of broadband services. The UK market is highly competitive and dynamic, with strong consumer demand and an effective regulatory framework driving rapid innovation in price, services and applications, which in turn is driving consumer engagement and demand.

The challenge in moving to next generation access (NGA) is to enable rational sustainable investment without losing the advantages of a highly competitive market for the provision of services to the consumer or creating enduring detrimental geographic divides in terms of service availability in the long-term.

Whilst other international markets are more advanced in the deployment of next generation broadband infrastructure, in many cases those early deployments are being made at the expense of competition in services and without any clear plans to achieve widespread availability. Whilst the BSG continues to argue that it is important that the UK does not fall behind international competitors, it is important that we get the transition to next generation access right.

The opportunity for the UK is to build on the success of the current model with the aim of ensuring:

- Timely and efficient investment in new infrastructure
- Sustainable and effective competition in the provision of services to the customer
- Consistency in the nature and capability of services available across the UK

Meeting this challenge will be about more than just regulation. It is likely to require new models of collaboration across the broadband value chain and an innovative and supportive public policy environment.

Nevertheless, Ofcom's consultation on future broadband is a welcome and important step forward to creating the right conditions for timely and efficient investment. The core regulatory principles that Ofcom has set out look right. The real challenge, however, will be in quickly developing an understanding of how these principles should be applied in practice and how their effects will be felt across the wider value chain.

Question 1 When do you consider it would be timely and efficient for next generation access investment to take place in the UK?

At an international level, significant NGA investments have now been made or are underway in many markets across Asia, North America and Europe. However, we are also starting to see investments in next generation access being announced in the UK. BT has made clear its intention to begin deploying fibre to the home (FTTH)

in new build locations from 2008 with Ebbsfleet providing the first pilot for this. More recently, Virgin Media has announced its intention to deploy Docsis 3.0 technology next year with the objective of making 50Mbps services available to 70 per cent of its existing customers by the end of 2008. In addition to these commercial announcements, the Digital Region project in South Yorkshire is expected to begin building out NGA services next year on the basis of a public private partnership, and several other small-scale community based NGA projects are currently under development.

At the same time, demand for bandwidth continues to grow as new more bandwidth intensive services and applications continue to be developed for an increasingly mass-market audience. Examples include the BBC's iPlayer and the recently announced Kangaroo project, which will open up an archive of high quality video from the UK's public service broadcasters for download.

In the BSG's view the consultation document is understandably, but probably overly cautious about the requirement for next generation broadband. Whilst there remain many supply and demand side uncertainties about the commercial case for widespread NGA deployment (as previously set out in the BSG Pipe Dreams report), these recent initial announcements suggest that NGA investment is now starting to become timely and efficient for some operators in some locations on a market-led basis.

The BSG therefore believes that further progress is now required in developing the regulatory framework to enable continued investment and sustained competition. The role of Ofcom in all of this is not to pre-empt the commercial or investment decisions of the private sector players but is to create a dialogue with them such that investment decisions can be made in an informed way.

The key factors, which determine the attractiveness of investment in NGA, are:

a) the applications and services that will be enabled by NGA
b) the costs of deploying NGA
c) the business models that will enable investors to secure a return

The first two issues are not determined by the regulator, however, the emergence of appropriate business models will be influenced by regulatory decisions. The regulator therefore has an obligation to reveal as much as possible about its thinking as early as possible.

Given the central importance of regulatory certainty to any commercial decision to invest more widely in next generation broadband, it seems clear that decisions now need to be rapidly made about how the regulatory framework will evolve to enable efficient investment and ensure sustainable competition. The areas where certainty needs to be provided are the pricing for alternative line access (ALA) products but more broadly pricing, product definition, and processes across both active and passive wholesale products. Ofcom needs also to consider how incentives to invest in current generation networks are balanced against incentives to invest in NGA.

Lack of regulatory certainty risks creating delay, and consequently pressure for more policy driven deployment, as has been seen recently in Australia.

Question 2: Do you agree with the principles outlined for regulating next generation access?

The principles set out in the consultation look right, however, they are insufficient in themselves to significantly advance the debate. Regulation is not simply about the articulation of principles, it is about deciding how they should be traded off against each other. Inevitably, in real life, principles interact with commercial realities and some principles are given greater priority than others. Technology neutrality is a classic example: it is widely regarded as an important principle, but it is regularly and rightly balanced with other principles when it needs to be, for example to achieve spectrum efficiency benefits as with digital switchover, DAB etc. The key question is not whether they are the right principles, but how they should be applied in practice.

To enable an informed trade off between principles, Ofcom will need, in due course, to prioritise particular outcomes (as it did in the case of the current generation of broadband with the decision to favour LLU). To get to this point in a timely way, Ofcom needs to rapidly and decisively lead the discussion about the range of ways of delivering NGA and the approximate costs and benefits of each scenario.

The consultation document provides a careful and detailed evaluation of the key issues at a conceptual level. Ofcom now needs to take the next step by examining in more detail the potential scenarios that might underpin investment to determine how the regulatory principles would need to be calibrated in each case to provide an effective outcome in terms of timely and efficient investment and effective and sustainable competition up and down the value chain. This needs to be considerably more detailed than the distinction between active and passive forms of delivery.

A possible indicative taxonomy of investment models and regulatory remedies could be as follows:

i. FTTC (Wholesale)
ii. FTTC (SLU)
iii. FTTC (Wholesale + SLU)
iv. FTTH (Active)
v. FTTH (Passive (fibre and wavelength unbundling/ duct access))
vi. FTTH (Open access)
vii. Cable

Each of the models needs substantial discussion and elaboration. To do this it will be necessary to consider the fundamental economics underlying different investment scenarios, including: the full costs involved; impact on the speed and efficiency of investment; potential returns available; the extent of commercial risk; the expectations of users and service providers who will rely on the infrastructure and the implications for sustainable competition.

To complicate matters further, it is highly likely that some of these scenarios will co-exist and we will in fact see a patchwork deployment of multiple networks using a range of technologies, including copper, fibre, HFC, wireless and satellite. There needs to be a discussion, led by Ofcom, about how these different forms of NGA might fit together and the implications of a patchwork deployment for the regulatory framework. The transition costs from one form of NGA to another also need to be considered – does it make sense for example to invest in FTTC and then later to invest in FTTH? Again, this discussion can be stimulated by Ofcom, but will need extensive input from others.

Further consideration should also be given to the competitive impact of cable and the potential for alternative open access models to drive competition.

As stated above, the aim in articulating these scenarios and examining their regulatory implications is not to pre-empt the market, but simply to consider the possible market outcomes in each case and give an indication to investors of the potential regulatory implications.

The BSG is working through different scenarios and is happy to share these with Ofcom as they are developed.

Question 3: How should Ofcom reflect risk in regulated access terms?

NGA deployment will involve a high degree of risk for investors. The level of risk is also likely to vary for different investors, at different times and in different locations making it difficult to assess effectively in advance. This presents a real challenge in determining the most effective pricing regime.

The current model allows BT to set access terms as long as these are provided on a non-discriminatory and equivalent basis to all third parties (based on BT's SMP obligations and its voluntary Undertakings which require Openreach to provide access on the basis of equivalence). This has proved effective in driving investment and competition in the current generation of broadband services. Non discrimination plus equivalence is well suited to a situation where returns/ profits are very uncertain and are likely to be subject to change and may well prove an effective basis for the regulation of NGA. This focus on BT reflects the heritage of BT's past monopoly position. Whether this is an appropriate frame of reference for an NGA world where several players are building discrete and separate access infrastructure should be considered.

The concept of anchor product pricing may provide an additional useful mechanism, however, the concept is relatively new and would need to be developed further before its effectiveness can be fully assessed. In particular, given the variable nature of current generation services, it is difficult to see, at this stage, how such anchor products would be defined.

Question 4: Do you agree with the need for both passive and active access remedies to promote competition?

Both active and passive remedies could provide a theoretical route to ensuring competition in the provision of services. The question is how effective, efficient and sustainable they will be and whether they should be used in combination or preference should be given at this stage to one or other form of remedy.

Achieving competition at the deepest level has proved highly desirable in the past. The question is what is the deepest level at which competition will be efficient, sustainable and indeed valuable in the case of NGA.

It is difficult to envisage how passive remedies alone would be sufficient to support competition across the whole of the UK. In the case of FTTC, the high costs and technical difficulties involved in co-locating at the cabinet level suggest that SLU would only be effective in some commercially attractive locations. In addition there is

a risk that where it was attractive to invest, first movers could achieve an enduring first mover advantage, and that while initial market entry might be contestable, subsequent market entry might be less so, leading to a fragmentation of the market at the local level.

In the case of FTTH, although incumbent operators around Europe are tending to opt for GPON, which cannot be physically unbundled, there may be longer-term opportunities with Point-to-Point architectures for fibre or wavelength unbundling. Meanwhile, duct sharing, or the sharing of other similar civil infrastructure may be feasible in certain locations where ducts are available and in good condition, but is unlikely to provide a universal solution.

This suggests that while passive remedies will be important, it is highly likely that, in the case of both FTTC and FTTH, active remedies, based on high quality, highly configurable wholesale products will have a key role to play outside areas where infrastructure competition is established.

While these issues are complex we do not have the luxury of extensive periods of reflection. Until there is clarity over which approach regulation Ofcom will pursue NGA investments will necessarily be speculative and at risk. In reaching conclusions regulators should: avoid excessive complexity; ensure solutions build to the largest possible addressable market as quickly as possible; make clear that the solutions chosen will be enduring over the lifetime of investments; and in weighing the benefits and costs of passive and active forms of access take account not only of their attractiveness to prospective users but also of the impact on the attractiveness of investment in building them in the first place.

Question 5: Do you consider there to be a role of direct regulatory or public policy intervention to create artificial incentives for earlier investment in next generation access?

Given the fundamental relationship between regulation and investment, defining what is and is not an artificial investment can be difficult. Clearly Ofcom will need to create a framework that enables both timely and efficient investment and effective and sustainable competition. This may mean that at a certain point, Ofcom will have to make clear decisions about its preferred approach (as it did with LLU in the current framework). This does not mean that competition should be sacrificed in order to accelerate investment or that operators should be forced to make inefficient investments.

At some point in the future it is likely, however, that there will be a need for additional policy or regulatory interventions to secure more widespread availability of next generation broadband services across the UK. It would be premature to pre-judge at this stage either the final extent of market led NGA deployment or the appropriate level of availability to efficiently meet broader public value objectives. It is, on past experience, reasonable to assume that market led deployment is likely to fall short of universal or near universal deployment. Given the potential economic and social value of NGA, there may be a strong case for policy interventions to secure NGA deployment in some areas that the market is unlikely to reach. The BSG is working with stakeholders to examine both the economic and social value of broadband and the potential models that could be employed to enable policy led deployment in some areas when it is deemed that the market is likely to fail to provide on its own and direct intervention is appropriate.