KCOM Group PLC response to the Ofcom consultation "**Future broadband - Policy approach to next generation access"**

Background

Amongst a range of other communications services and integration activities, KCOM operates the incumbent network in and around the Hull area, and provides consumer and business broadband services to its customers in the region. KCOM also provides a range of broadband services nationally through wholesale services brought from BT and other providers and niche use of "classic", MDF based LLU. KCOM is currently a member of a consortium, led by Thales, which is preferred bidder for the South Yorkshire Digital Region (SYDR) project that is seeking to deliver next generation broadband services in Sheffield, Barnsley, Doncaster and Rotherham through the use of public funding, including EU SRB grants available as a result of the region's "Objective 1" status.

This combination of factors provides KCOM with a good understanding of NGA deployment issues and economics, which we have already shared with Ofcom in the course of its review leading up to this consultation. In this response we will reiterate some of the views expressed in these bilateral discussions, and also provide our perspective on the specific questions raised.

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

The UK broadband market is highly competitive, with a wide range of providers providing services at relatively low cost. The outcome of Ofcom's Telecoms Strategic Review and the creation of the OTA have played a large part in this, lowering costs and encouraging market entry. Competition has driven service take up and use, with a wide range of service options and price points. Service availability is amongst the highest in the world, and both price and take up benchmarks compare well with other developed economies.

Yet consumer sentiment is not entirely positive. Service delivery from some operators has been poor; a natural consequence, perhaps, of such dynamic market conditions. Specific problems with migration between different service providers have been encountered and the OTA is in the process of developing processes that mitigate or eliminate their impact. However, more fundamental concerns about real world broadband service performance have emerged that show little signs of diminishing.

Broadband services are commonly referred to as being "up to XMbps" speeds. This reflects two main factors, firstly the existence of contention at a number of points in the

service providers infrastructure and/or the Internet overall, and secondly, for DSL based services, the variability of peak line speed associated with line length, line condition and static and dynamic noise levels. The former is predominantly the result of investment decisions made by service provider in order to deliver commercially viable products; the latter is the result of the "laws of physics". With current network topologies and technologies, whether cable modem, MDF based ADSL or wireless, these factors will remain.

However, consumer expectations are changing. The intensity of broadband use has increased, and the applications used, such as P2P file sharing and video streaming demand higher bandwidth for longer periods. Meeting these expectations is proving difficult – many consumers are complaining about poor or variable performance caused by contention and line conditions having a detrimental effect on their user experience.

Clearly there is a latent demand for higher bit rate and more consistent services. The issue is whether, in current economic and market conditions this demand can be met. Whilst Virgin Media have announced the deployment of DOCSIS 3.0 technology which is capable of delivering raw line speeds of "up to 50 Mbps", this will remain a highly contended service which is highly unlikely to deliver a consistent customer experience. Similarly, the deployment of ADSL2+ by Sky, BT and others will not result in a fundamental change in the prospects for delivery of consistently high bit rates to most, if not all consumers.

Only NGA solutions will enable this, whether FTTK (which includes re-engineered HFC cable networks) or FTTH. The issue is whether there is a convincing economic or investment case to be made. The regulatory framework in force may have a real bearing on this. Our own analysis suggests that the current investment case for NGA is marginal, given current perceptions of customer propensity to purchase and is only likely to make sense in certain circumstances, with relatively high penetration rates in a given area being a prerequisite. Regulatory or other incentives that lead to multiple market entry may dilute the returns available and lead to an inefficient outcome.

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

The economics of NGA deployment are receiving a great deal of attention at the moment. Ofcom has been running a study/investigation of both the economics and policy implications of NGA for some time and the subject has also been examined by the Broadband Stakeholder Group (BSG) in their report "Pipe Dreams? Prospects for next generation broadband deployment in the UK", published on the 17th April, 2007. This report raised some interesting questions, particularly with respect to reasons why NGA deployment in the UK seems to be lagging behind peer group developed economies in Europe and elsewhere. These touch on both the economics of NGA and the impact of the regulatory framework on the development of competition in the UK broadband market.

Interestingly, these themes are echoed in the European Regulators Group (ERG) Consultation Document and subsequent Statement on Regulatory Principles of NGA These reports sought to establish both how NGA investment by incumbents could be regulated under the EU sectoral framework, and what types of regulatory remedies should be applied in particular circumstances address the key issue of whether or not the existing model of regulation can be mapped effectively or economically onto these new network topologies.

The key regulatory question is what sustainable competition would look like with these new network architectures? Whilst explicitly accepting the current regulatory principles of the "ladder of investment" and the encouragement of investment at the deepest level of network competition possible, the ERG note that these may have to be interpreted in rather different ways for NGA. Specifically, they have noted the very different economics of Sub Loop Unbundling (SLU) compared with conventional LLU, with very high incremental investment levels needed per customer served, because of the need to deploy large scale "fibre to the kerb" (FTTK) and active street cabinets. This analysis is informed by a review of the published business models created by leading consultancies such as Analysys and WIK, which have also been used to shape current regulatory thinking, for example in the Netherlands. Quite correctly, the ERG notes that the prospects for NGA deployment are uniquely determined by the physical characteristics of the network in a specific geography, particularly the key metrics of number of customers per PCP equivalent, the number of PCPs per MDF site and distances between PCPs and their serving MDF.

These metrics vary widely across the EU and the ERG makes it clear that the circumstances in a given market have to be examined in detail before drawing any specific conclusions. Nevertheless, it does note that in some circumstances, the adoption of the current LLU model of multiple competing CPs investing in duplicated infrastructure may not be viable at the SLU level, with all CPs likely to be sub scale. It does examine ways in which this problem can be mitigated, such as the use of mandatory duct sharing to establish lowest cost backhaul, but accepts that, in particular circumstances, such competition would be economically inefficient and unsustainable. We would concur and, based on our own analysis would suggest that the UK may well be in this category.

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

As noted earlier, we believe that the short term prospects for commercial deployment of true NGA are not good. This poses a number of problems. Clearly any commercial investor contemplating entering this market will be concerned that regulatory measures to promote competition encourage irrational market entry, to the detriment of all. In addition, those operators that do enter the market will have concerns that their legitimate commercial returns may be eroded away by regulatory remedies, particularly with respect

to the allowed rate of return on capital employed in the provision of any wholesale services they may be obliged to provide to other service providers.

To deliver NGA, significant new investments will be necessary, both at the active electronic system level and in terms of passive fibre and duct infrastructure. In order to avoid chilling the prospects for such investment it is important that appropriate economic signals are sent. In regulatory terms, this may best achieved by allowing first mover advantage to be gained and by imposing regulated access remedies only when SMP in the relevant market can be clearly shown. Even when this has happened, it would be appropriate to allow a higher cost of capital than for existing access services based on long established assets.

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

Yes, but as noted above, only when there is a clear SMP finding in the relevant service market. In the short term, this would mean that existing SLU obligations should be maintained on Openreach, reflecting the outcome of past access market reviews, and enabling operators other than BT to deploy FTTK. The extension of regulatory obligations to other services should happen only as the result of new or revised market reviews, rather than on any *ex ante* basis to "encourage" market entry. Firstly, it is not clear that such encouragement is necessary, and, secondly, such action may have the effect of distorting the market and could lead to an inefficient outcome overall.

The issue of whether "passive" obligations should be extended to duct and dark fibre is particularly critical in this context. Whilst it is true that there are significant assets of this nature already in the ground, it is not clear that they form an essential economic bottleneck for FTTK or FTTH solutions. In many instances, they are not in the right place to serve appropriate street cabinet sites and are very rarely engineered to provide secure, multi user occupancy. Our own analysis of both the SYDR and Hull opportunities suggests that a new duct overbuild will be necessary to deliver the appropriate "backhaul" infrastructure to meet real NGA service needs. Any "passive" access obligations will only dilute the investment case and diminish the likelihood of NGA deployment.

In time, as SMP is gained in downstream markets is gained, active wholesale service obligations should be imposed, with a clear requirement that these should be engineered to be as flexible as possible. We also believe that any NGA deployment funded by public sector intervention, whether as a result of perceived market failure or otherwise, should have a non discriminatory active access obligation from day one, in order to minimise market distortion and to ensure that State Aid concerns are addressed.

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?

In principle, yes, provided that a clear economic case can be made justifying the intervention. The economic and social advantages of early NGA deployment have been widely analysed, and it would be an entirely proper public policy outcome if this led to public sector initiatives to encourage deployment in those areas where it seems unlikely that the private sector will oblige.