

Submission to Ofcom by Kent County Council and Kent & Medway Economic Board

I am writing to you in response to your consultation on Next Generation Networks. Next Generation Networks are intended to replace and simplify BT's existing transmission and switching infrastructure, and will provide an integration of voice and data services over a broadband infrastructure. BT has indicated that the outcome will be a substantially lower cost infrastructure that will form the basis for services in the 21st century. This migration should therefore be welcomed, particularly as it may give the UK a competitive advantage based on enhanced telecommunications and IT services.

In your consultation, you allude to the possibility of fibre in the local loop, but leave a discussion of the issues that arise for a later consultation. We believe it is timely to consider fibre issues now. This letter outlines our concerns associated with the development of local loop infrastructure and in addition, provides answers to specific questions raised by the Consultation.

Developments in telecommunications services

Over a twenty year period, we envisage that the local loop infrastructure will increasingly be used for the delivery of a varied set of services that may include traditional telephony, enhanced telephony services, such as video telephony and video conferencing, internet access and multimedia services including high definition TV and interactive gaming. A business or household may choose to purchase its information and entertainment services from a number of distinct service providers. Some of these service providers will wish to have access to the local loop in such a way that they can control its characteristics to ensure optimum service quality for their service. This aggregated set of services likely to be delivered into a household or small business will require substantial increases in capacity in the local loop in the medium term.

Enhancement of current copper based local loop infrastructure

Even with current and future DSL technology developments, the present rate of growth in speed of access, required by both domestic and business users of telecommunications services, indicates that the present copper based local loop infrastructure will not be sufficient to meet medium term capacity requirements except for premises located close to exchanges. Migration to fibre in the medium to long term will therefore become necessary if service development in the UK market is not to be constrained.

Migration from copper to fibre will be difficult and costly and will take place over a protracted period during which the existing investment in copper infrastructure is fully depreciated. We therefore believe that in areas that are already serviced using a copper local loop infrastructure, the most likely option will be for improvements to be made to the present infrastructure as broadband

requirements develop. Such improvements will include improvements in DSL technology combined with the removal of MSANs from their position at a local exchange to a position further out into the network. This repositioning will reduce copper cable runs and thereby enable the higher data rates necessary to meet new service requirements.

Local loop infrastructure in new areas

In new areas, there is an immediate opportunity to invest in a fibre infrastructure that would provide sufficient capacity to meet all envisaged medium and long term requirements. The local loop infrastructure deployed for these developments will endure for at least twenty years. The deployment of copper in these areas will not provide the capacity to meet growing domestic and business requirements for capacity and for access to a variety of service providers. Moreover, we have been told by BT that the decision to deploy fibre rather than copper is cost neutral. The deployment of copper can be considered, therefore, to be the deployment of an obsolescent technology.

Major housing and infrastructure developments are commencing over the next two years in the South East and East of England regions. In the Kent & Medway sub-region, these include Thames Gateway and developments around Ashford. The scale of the opportunities presented by these growth areas is large. For example, there are plans to build 120,000 houses and provide 120,000 to 180,000 new jobs in the Thames Gateway alone by 2016.

We are positioning Kent as a whole and the growth areas in particular as a place for knowledge and ICT centred business. To this end we require infrastructure a suitable infrastructure to be provided. We believe that the use of copper local loop to deliver services in large new developments will represent an unacceptable loss of opportunity to build an access network for the 21st Century in a green field site. Therefore we require that regulatory activity should be used where possible to promote such developments.

Ofcom is not currently considering widespread fibre access as a major issue - see 2.10 of Next Generation Networks: Future arrangements for access and interconnection, *"BT also set out plans for a 'deep fibre' trial, extending fibre further into the access network. However, although these trials are clearly of interest, they raise very different issues from the rest of BT's NGN proposals, and we therefore consider them to be out of scope of this document. We are considering the policy implications of next generation access in the Telecoms Review."*

The reasons for this are understandable in that there are many complex issues associated with facilitating competition over a fibre access network infrastructure that need to be resolved. Nevertheless, because of our economic development

requirements, we believe that it is timely to start to address the regulatory issues associated with fibre in the local loop.

By addressing this issue now, BT and other operators will gain some certainty over the regulatory regime to be employed. This will reduce the risks over infrastructure and service deployment and encourage the migration to fibre and the development of the broadband services that can be deployed over a fibre infrastructure.

Moreover, deployment of fibre in growth areas such as the Thames Gateway or Ashford would give BT and Ofcom the operational experience of fibre access networks aimed at the consumer and small / medium sized business necessary to develop a regulatory framework for subsequent widespread and long term use.

Regulatory issues associated with fibre in the local loop

The early implementation of fibre in the local loop in growth areas will require Ofcom to develop an appropriate regulatory regime.

First, this regime will need to take account of the probability that BT will be the first, and possibly the only operator that provides such facilities outside Kingston upon Hull. BT's universal service obligation gives it an advantage in deploying local loop infrastructure in general, since all other operators know that they have at least one major competitor when developing their business plans for such an infrastructure, but BT is aware that it has no other operator that will inevitably provide an infrastructure. Therefore BT is able to assume that it will be the only operator in areas that can only sustain one infrastructure.

Secondly, the regime will need to take account of the potential additional risk from the deployment of fibre in the local loop. The risk arises from the migration to new technology and the migration to a new set of services.

Thirdly, the regime will need to provide for access to the fibre local loop to each premises by one and possibly multiple licensed operators in addition to the incumbent. Therefore, the fibre regime will need to provide a framework for either the equivalent of local loop unbundling and bitstream access, where bitstream access is available to multiple service providers over each connection.

Responses to specific questions

Question 1: What are your views on the potential for competition based on access at different geographic levels (local, metro, core) and the way this may vary depending on geography.

We agree with Ofcom's conclusion that there is potential for competition at metro and core nodes and at local level in urban and some suburban areas. We believe that BT will ultimately move MSANs deeper into its local loop network to

deliver high speed broadband services, thereby reducing the opportunity for competition at a local level. We do not wish to see BT constrained from technical innovation, but would prefer that access to such MSANs be provided to other licensed operators in such a way that they can manage the bandwidth available to them between the MSAN and the premises served. Another licensed operator should then be able to provide its own backhaul from the local area. We do not believe that bitstream interconnection at a metro level only is sufficient. Interconnection at the 100 or so metro level sites would limit the opportunity for the development of competitive regional networks. To some extent Kent suffers economically from a lack of such a regional network.

Question 5: What principles should Ofcom adopt to promote a favourable climate for efficient and timely investment in Next Generation Networks?

We would hope that Ofcom would ensure that regulatory obligations that hinder the migration to next generation networks and fibre in the local loop would be withdrawn rapidly, taking account of any risk of stranded assets.

Question 6: Do you think that there may be demand for products offering access at the MSAN in addition to or as an alternative to LLU? Are there relevant issues other than LLU migration processes and enabling backhaul competition?

We believe that LLU will not be feasible at a smaller MSAN sites. At the same time, we believe that innovation in service provision will be constrained unless other licensed operators are provided with a means of controlling bandwidth and quality of service available to their services over the entire path from the customer, and to use its own network for backhaul. Without access at the MSAN, there is the possibility of a two tier market developing, where customers in areas where LLU has taken place receiving superior and more varied services than those where LLU has not taken place. Such a two tier market would be detrimental in that it would reduce the available market for new innovative services. The control of the MSAN is assumed to be independent of the means of providing backhaul from the MSAN.

Question 12: Are there parts of the UK where backhaul between MSAN nodes and Metro nodes should be regarded as an enduring economic bottleneck?

We believe that such enduring economic bottlenecks may arise in rural areas, many suburban areas and some urban areas. If MSANs are located deeper in the local loop network, backhaul from these is also likely to be enduring economic bottlenecks even in many urban areas.