COLT Telecommunications

Response to “Delivery of super-fast broadband in the UK”

2 December 2008

1. Introduction and summary of response

This paper contains the response of COLT Telecommunications (COLT) to Ofcom’s consultation on “Delivery of super-fast broadband in the UK”.

COLT recognises the strong desire of governments, regional and municipal authorities and regulators to see a rapid rollout of high speed fibre-based (next generation) fixed networks. COLT welcomes the thought processes and planning that needs to be undertaken in anticipation of this, in particular how to ensure that the private-sector commercial market is best placed to achieve this by using competition as the key driver to obtain an appropriately diverse and economic marketplace.

COLT welcomes the timing of the consultation which seeks to move from high-level policy principles to more detail on regulatory or operational issues.

The BERR Next Generation Broadband Vision summarises well the needs of COLT’s business customers:

“To secure our future competitiveness, the United Kingdom needs to become the world’s leading knowledge economy. The ability to trade and create digital goods and services is fundamental to that. This requires a robust digital infrastructure that can meet the demands imposed upon it at prices people are willing to pay.”

The Broadband Summit of 26th November 2008 noted:

“The government believes it is important that the UK can offer an innovative and competitive environment in which business can flourish and which provides an attractive place for investment …”

“Government also believes that care needs to be taken to avoid a digital divide as a result of NGA roll-out in the UK. As other countries move forward with FTTH and FTTC, however we must ensure that UK’s competitiveness is not constrained by limited availability of high speed networks ….”

Despite the above statements, COLT is concerned that the understandable political desire for greater investment in high speed NGA networks may tempt Ofcom towards a new regulatory approach which establishes a bias for NGA investment at the cost of maintaining or improving effective competition for businesses in the UK. The evidence of a move in this direction is stronger at EU level at the moment but we must urge caution for the UK market too. The history of the liberalisation of the communications market sets out a very clear message that establishing and maintaining effective competition is the only guarantee for end users of choice and high quality of service. There should be no regulatory holidays and no special regulatory incentives to encourage NGA investment. A predictable regime is desirable for all and will help to foster future investment but a specially relaxed regime will damage the market and cause long term harm to the interests of end consumers and the competitiveness of the UK.
COLT wishes to see two priorities for the future of NGA regulation in the UK:

- A regime that encourages best possible development of enterprise-fit communications services to support the UK as a leading global business centre now and in the future.
- Access capabilities which encourage the development of leading-edge business services that meet the requirements of our enterprise customers based around the world.

COLT has expressed ongoing concerns that the focus in industry and at a regulatory level remains heavily skewed towards the residential consumer. Whilst we fully support a regime that enables consumer choice and the development of leading-edge consumer services, this must not be at the expense of the needs of businesses which are the lifeblood of the UK economy. Ofcom must ensure that the access needs of businesses are not outweighed by those of consumers in order to avoid a digital divide between UK-based businesses and the rest of the world. Any failure of UK NGA regulation for businesses will compromise global competitiveness of the UK, in particular its ability to trade and create digital goods and services.

In summary COLT requires in response to this consultation:

- NGA which underpins the UK’s continued status as a global business centre
- A greater focus on the needs of enterprise customers, for example focussing on the need to:
  - Develop a model which does not promote the sharing of bandwidth between end-users
  - Guaranteed levels of quality of service
- Deployment of Fibre To The Business (FTTB)
- No possibility of regulatory holidays to encourage NGA
- Careful consideration of the different risk profiles of different NGA investment projects
- No automatic assumption of a high risk premium for NGA investments
- No automatic primacy of passive remedies
- Clearer transparency requirements
- Ongoing detailed engagement by Ofcom at both a UK and European level

2. About COLT

COLT is a leading European provider of business communications. COLT specialises in providing data, voice and managed services to major enterprises, SME and wholesale customers. COLT owns and operates a 13-country, 20,000km network that includes metropolitan area networks in 34 major European cities with direct fibre connections into 14,000 buildings and 18 COLT data centres. COLT Telecom Group S.A is listed on the London Stock Exchange (COLT). Information about COLT and its services can be found at www.colt.net

COLT was established in 1992 with the assistance of Fidelity Investments, one of the world’s largest privately–held mutual fund and investment management companies. Fidelity remains COLT’s majority shareholder today.

COLT built its first 15km of London fibre network in 1993 and over the following three years expanded its London network and offered services in major European cities, with local sales, service and support capabilities. From 1997-2001, COLT raised over £2bn of new capital to fund the construction of a 15,000km pan-European backbone network. Today the company operates in 13 countries and owns an integrated 20,000km network that directly connects around 100 major European cities, with metro networks in 34 of them. COLT’s network also connects 14,000 buildings and 18 COLT owned data centres.
COLT followed a clear strategic path to the development of its network. First came the dense, last-mile fibre network in London, then in the other first-tier European cities. Once the local networks were deployed, all the COLT metro networks were connected over a wholly-owned backbone. COLT has predominantly built its own network and infrastructure. Only in a very few cases is the COLT backbone network reliant on elements leased from other carriers. In total, COLT has invested almost £3bn in creating its pan-European and long-distance network. COLT also works with other high quality providers to extend the reach of its services 'off-net' via fibre and wholesale DSL, as well as implementing local loop unbundling across 13 countries.

COLT is established as a leading European provider of business communications services offering end-to-end security, reliability and high performance. COLT is organised into three customer-facing business divisions that focus on meeting the needs of Major Enterprises, SMEs and Wholesale customers. COLT is a leading supplier in a number of industry sectors, particularly the financial services and professional services segments. In each of its business divisions, COLT has professional services experts who design and manage complex solutions for their customers. Our services include award-winning Ethernet services, data centre outsourcing and managed IT services from security to email and other managed applications.

- For Major Enterprises, we provide sophisticated connectivity and IT infrastructure to underpin their operations
- For SMEs, COLT is focused on providing packaged solutions
- In the Wholesale sector, we focus on building strategic relationships with our global and national carrier customers, helping them to achieve their business objectives.

The current President and CEO Rakesh Bhasin was appointed in December 2006, bringing with him extensive experience in the global telecommunications and managed services industries. Our vision and overarching goal is to be the most trusted provider of converged data, voice and managed services to businesses across Europe.

At present COLT’s network development plans are focused on extending its reach to major global trading centres. COLT deploys fibre-to-the-building and is in a very different position to companies such as BT who have major copper access networks in place. Access to appropriate wholesale access products remains key to extending COLT service reach, particularly in respect of multi-site national business customers. COLT is therefore keen to ensure that such wholesale access products remain available and fit-for-purpose going forward into next generation access.

3. Specific consultation questions

COLT has followed the structure of Ofcom’s consultation in the remainder of this response and provided some high level commentary on each individual area where appropriate. At the end of each section it deals with the specific questions raised.

A. What will super-fast broadband mean for consumers and businesses?

For businesses it should mean the introduction of fit-for-purpose, leading-edge business services that meet customer requirements and provide a cost-base that competes with other global economies, specifically:

- fully scalable, synchronous, bandwidth services
- uncontended, guaranteed bandwidth
- a variety of business service levels to support the needs of differing requirements e.g. 24 hours a day, seven days a week, or business hours Monday to Friday 9am-5pm
- diversity and resilience,
- competitive pricing to suit the economics of business distributions and densities (as directly opposed to those of residential consumers)
- a platform which encourages and enables the delivery of new and exciting services and applications for business customers

COLT’s customers hope that super-fast broadband will provide a better entry level offering on which their businesses can build.

COLT has a serious concern that the needs of business and enterprise customers are not being adequately considered as part of this consultation process. This has been a worry for COLT in many of the recent telecoms consultations where the main focus seems to rest on the requirements of residential customers. Although the consultation document is clear that it addresses both markets, again and again in discussion fora the assumption or priority is with residential consumers. This is underlined by series of recent events which have a negative impact on business customers:

- The progress of Openreach’s GEA compared to DEA\(^1\) so far.
- Continual issues on BT Partial Private Circuits (PPCs) since 2004. Most recently these have culminated in disputes submitted by a number of operators including COLT revealing what appears to be years of overcharging by the incumbent on critical Partial Private Circuits services for business back to 2004.
- Local Loop Unbundling services targeted at residential consumers and which do not meet the needs of smaller business customers for the following reasons:
  - Bandwidth is contended whereas business customers require guaranteed uncontended bandwidth
  - Bandwidth is not scalable in the same way that Ethernet services are
  - There is a lack of resilience and diversity
  - Bandwidth is not synchronous
  - The pricing does not create the right economics for business deployment based on the distribution of a business-led customer base
- Price increases by the incumbent for key bitstream services
- Lack of fit-for-purpose SLA’s

For this next phase of regulation Ofcom must do better for UK businesses. In particular COLT urges Ofcom to ensure that any definition of active access appropriately takes into account the distinct and specific needs of business users separate to those of residential and very small business consumers.

COLT is disappointed that the announced plans for NGA involve a limited version of network upgrade i.e. to PON. This fails to provide a long term solution for the provision of high speed broadband access for end users with the risk that it will be superceded by a point-to-point infrastructure in the longer term. The sharing of bandwidth between end users is unlikely to provide the basis for products which are fit for purpose for business customers who require guaranteed levels of quality of service. The UK’s best chance of obtaining regulatory fairness going forward would be to use a Fibre-to-the-Business Point-to-Point capability which would allow for the continuation of infrastructure competition, whilst preserving the principle of the ladder of investment. Upgrades to such a topology would be comparatively straightforward and available on a per end-user basis which would allow the significantly greater levels of customisation and differentiation that business customers require. Whilst COLT recognises that Ofcom has limited ability to dictate the actual network plans for NGA by individual operators it may be that the debate takes a different path where state funded fibre rollout is

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\(^1\) COLT is engaging with Openreach on its DEA product. This is a version of the GEA product that has been in consultation for longer but is more appropriate to suit the needs of corporate and enterprise customers and therefore a better fit with COLT requirements
concerned (see later comments). COLT believes deployment of PON technology across the UK will disadvantage UK-based businesses for the future compared to other countries and cities pursuing FTTB.

Ofcom also needs to consider that for businesses based in the UK, especially at an enterprise level, customer requirements for super-fast broadband services do not vary across geographies. International and global businesses who operate on a 24 hour basis across different time zones and continents require high bandwidth FTTB access across the globe at competitive prices. The capabilities available in the UK need to be as impressive as in other key global centres around the world to continue to attract the necessary investment and customers to this country.

Question 1 - Is there further evidence available on the applications and services or consumer benefits that may be supported by next generation access?

Given this is the second consultation Ofcom has issued, there appears to be limited progression on exactly what the new generation of services and applications involve. The “circle” of service innovation, leading to improved returns on investment, leading to increased speed of deployment is still in its early stages of development. What is clear, as referred to above, is the opportunity for better quality services at lower prices.

Early indications from customers show that there is a demand for higher speed products amongst the business community but a low level of desire to actually pay more. Business customers are upgrading to at least 10 and 100 Mbits Ethernet services. Certain recent pricing changes by Openreach in its WES product portfolio have encouraged this progression by effectively removing the price differential between the 10 and 100 meg services; pushing customers up the bandwidth scale at no extra cost. This has also served to isolate 2 meg SDH services.

For our enterprise customers who require access to global data centres and trading locations, the trend is towards 1 GigE services. Hubbing multiple GigE spokes into 10Gig hubs is attractive for key locations. In many of our key vertical markets customers with mission critical services require dedicated high bandwidth with Quality of Service (QoS).

Question 2 - Who should lead on defining and implementing a process for migrations to and from next generation access networks? What roles should industry, Ofcom and other bodies play?

End consumers should be adequately protected and provided with continuous and seamless services through transition to NGA’s. To achieve this, telco’s will need to play a key role in ensuring that any network upgrades are managed effectively, providing plenty of notice, information and being transparent in all aspects of the work. The migration will need to be managed not just with end users but with the purchasers of wholesale services affected too.

It is likely Ofcom will need to oversee this transition from inception to ensure a smooth transition and there may be a role to play for a more “hands on” supervisory function similar to that played, for example by the OTA in ensuring the fair and easy roll-out of LLU.

COLT would also urge caution in allowing the incumbent to set dates for closing existing services without there being fully agreed, specified and costed replacement solutions for business customers. The replacement solutions should have technical specifications agreed by industry for the relevant market and customer group. COLT is interested in the option Ofcom considers for the possibility of anchor product regulation where it would guarantee the continued provision of key services in NGA for the same price as previous generation services. Given the chance that the market may develop into an effective re-duopolisation between BT and cable (in an NGA environment for residential customers at least), the problem then rests with how competition will be provided for business customers i.e. whether regulated ALA will work.
B. Our vision for the future and the role regulation should play

Question 3 - What role is there for Ofcom in the ongoing debate on next generation access versus industry's role in progressing this debate through multi-lateral and bi-lateral discussion?

Clearly Ofcom will have an important role to play in ensuring clear and transparent debate on this and in setting appropriate regulatory remedies should there be a need. COLT welcomes the involvement Ofcom has had, for example, in engaging industry with a specification for an Active Line Access (ALA) product and facilitating debate and discussion. Even more critically, Ofcom will also perform a useful function in looking at NGA long term and predicting the effects on competition any projects will have. Ofcom must be careful not to let any product debate and development get too far ahead of any policy making. Ofcom’s overview of the market and key players’ plans places it in a much better position than any individual operator to look out for future pitfalls and take action to minimise these.

Industry must also play its part and engage in the discussions as much as possible including considering any useful collaborative works in reducing the risk and expense of more network investment. COLT firmly believes that it is its own responsibility to engage directly in the development and role out of any new NGA products and to ensure that its specific product and network requirements are shared. COLT has been instrumental in contributing to industry fora such as NGNuk to try and define the Ethernet interconnect standards going forward. It is building on this work now with the product specifications for ALA.

We would like to see Ofcom ensure that the needs of major and enterprise business customers are not diluted by those of residential customers when approaching NGA regulation. Our preference is to see a forum established for providers of services to business to engage directly with Ofcom separate from those serving consumers needs.

COLT also believes that Ofcom needs to develop a more robust method of interworking with NGNuk, collecting the requirements derived from this group and ensuring they effectively inform the development of new regulation.

Another important role Ofcom can play is in representing the needs of UK-based businesses on the European and International stage. In the same way that access to maritime and overland trading routes determined prosperity in the past, a city’s communications infrastructure and the pricing and capability offered is a major determinant of whether it will be a prosperous place in the 21st century.

Major projects are underway in Amsterdam, France, Stockholm, Australia and Singapore that seek to ensure high speed broadband networks are embedded as critical infrastructure to attract economic development and inward investment. In Singapore the intention is to offer 100 Meg – 1Gig over an open-access and carrier-neutral infrastructure. Stockholm’s efforts are similar as it has created a company to build, operate and maintain the fibre optic communication network in the Stockholm region and to lease fibre optic connections. The company is competition-neutral and provides a network that is open to all players on equal terms.

The strength of these initiatives lies in their focus on quality and speed of services which are strongly focused on the needs of business customers and residential consumers. COLT would like to see Ofcom give more attention and priority to UK business sector needs in its work on NGN and NGA going forward. The business product specification for DEA (being developed within Openreach) is slow, possibly due to the fact that it is driven from the Ethernet product portfolio within that Openreach rather than via the high profile Open Access Forum where GEA for residential customers is being promoted.

Question 4 - How far does current regulation, including market definitions, equivalence and BT’s Undertakings, need to evolve as result of next generation access deployment?
COLT has recently responded to the European Commission’s draft recommendation on regulated access to NGA’s and would draw some parallels with its comments there and this consultation. COLT essentially expressed its concern that the Commission proposed to treat NGA’s differently and urged caution in applying any separate regime to NGA’s per se. In its response, COLT questioned the following assumptions made by the commission:

- that NGA’s require unusually substantial investment
- that such investment is significantly affected by regulatory predictability; and
- that NGA deployment might change the competitive landscape for fixed altnets (i.e. changing the business model for altnets which have invested in LLU, potential stranding of assets and risking the re-monopolisation of communications markets).

Firstly COLT questioned whether the true size and risk of the investment in NGA had been adequately assessed. NGA’s are defined very broadly in the recommendation, leaving a danger that no regulatory predictability or legal certainty could be achieved if the addressable market was left so loosely defined. We believe this is less of an issue in the UK where plans are clearer but Ofcom will need to work in hand with the Commission to ensure that a differently regime does not become mandated at EU level.

Secondly the Commission’s analysis was very biased to regulatory remedies based on access to passive elements rather than ensuring an active remedy was in place. COLT expressed its concern with this. Passive remedies may not be economically sustainable as network topology will dictate the economics and practicality of an altnet’s ability to reach customers. In an NGA environment, the ladder of investment may either be inapplicable or may need to be construed in such a way that active access is at the top rung. Again, Ofcom appears to take more of a middle path in its consultation and COLT welcomes the higher level of engagement on an inevitable active access model. Industry may have to recognise that active access is effectively service competition and as such a move away from infrastructure competition at the deepest level. It has been argued that this may not be such a serious issue given the wider scope for innovating differentiating services using Ethernet as opposed to older technologies. However, given that the current evolution of competition in this part of the UK market looks like being largely between BT and cable, we may need to recognise that robust pricing controls may need to substitute for the controls that the market will struggle to provide (see comments in Pricing section below).

Current regulation will play a key role in ensuring a fair and competitive roll out of NGA’s including equivalence and BT’s Undertakings. These rules will no doubt need to evolve as new issues arise but most importantly will be a transparent and active level of engagement and debate to ensure roadblocks are anticipated in advance. An example of a market change that COLT has previously pushed for is a separate product (or at least a sub-market) for high quality business connectivity services that includes high-grade ADSL and SDSL. So far these services have been considered alongside mass-market consumer access services which results in our view in an incorrect assessment of competitive conditions. Developments in the NGA world may result in similar market separation issues.

C. Competition remains key to delivering the benefits of next generation access

Question 5 - How important are passive products such as forms of sub-loop unbundling and duct access? Can the economics of these products support the promotion of effective and sustainable competition at this level? Which passive products should Ofcom pursue?

In the past COLT has expressed some concern with mandating passive forms of access as a solution to opening up the bottlenecks in access. Its concerns lay with whether such a remedy would be efficient and whether it would give rise to considerable logistical problems (e.g. full ducts meaning there was an uneven coverage of product available, liability for ducts vis a vis repairs, third party wayleave issues and security issues around access and maintenance). Certainly competitors’ LLU
deployment has been constrained by availability of space in BT exchanges and restrictions around what can be located there. It will also be directly affected by exchange closures as BT migrates to 21CN. We believe competition can develop quicker, and, in many cases, more effectively or solely through active remedies.

COLT’s preferred approach would mirror what it has submitted in previous reviews that touch on this matter; that active remedies which improve access to higher quality bitstream products is essential for business customers. There is little scope for innovation at the transport layer and most development in telecoms happens further up the OSI model. CP’s are likely to end up using the same electronics in their networks at the infrastructure/interconnectivity level as BT and will therefore replicate BT’s service, just at a lower price. Such a solution results in nothing more than an arbitrage opportunity.

As always the right solution is often based on the practical realities rather than the theory and COLT is keen to engage further in Ofcom’s survey of BT ducts which is due for publication later this year.

**Question 6 - What are the characteristics of high quality, fit for purpose active wholesale products? How far can active products with these characteristics support effective and sustainable competition?**

COLT welcomes the work being carried out in this area by Chinyelu’s team and the accompanying workshops and discussions taking place. We believe output carefully gathered by NGNuk needs to be more closely reflected in this work. COLT intends to respond in detail to the ALA consultation document that was issued with this Superfast Broadband consultation document and won’t reiterate the detailed technical points made in that response here other than to agree with the key characteristics outlined by Ofcom and would prioritise the importance of Quality of Service (in terms of packet prioritisation) and Security. Transparency of service will also play a vital part in ensuring fit-for-purpose services are developed for businesses.

**Question 7 - Are there other options for promoting competition through regulated access that have not been considered here?**

COLT does not have any specific alternative suggestions to make here.

**Question 8 - How far may options for joint investment provide greater opportunities for competition based on passive inputs? Are there lessons that can be learned from similar ventures in other industries? What are the risks and advantages of such approaches?**

It may well be that there are opportunities for joint investment and planning which will help operators manage risk and investment in NGA’s e.g. in Sub-Loop Unbundling (SLU) investment which has always been a difficult model to make work. COLT is not currently planning any investment in SLU however. As well as the actual product not being sufficient for our customer profile the economics simply don’t work for our business (see above comments on LLU).

**Question 9 - What should be the respective roles of Ofcom and industry in defining and implementing product standards?**

Ofcom will have an important role to play in ensuring clear and transparent debate on this but standards setting are not part of its direct remit. We would advocate that MEF and IEEE standards are followed where applicable. It is becoming increasing clear that there will be a strong role to be played by standards as the many and varied plans that are currently being discussed pose a distinct threat that the UK will be divided into a patchwork of various technologies for a similar service. For businesses requiring homogeneous pan-UK coverage it will be important for a consistent service offering to be available.

Ofcom can play a more proactive role in engaging with those providers who serve business customers and opening up a more robust dialogue to understand the needs of this specific group.
Ofcom also has a role to play in ensuring the critical and very different requirements of business customers are not undermined or outweighed by consumer needs, thereby compromising the future of the UK as a global trading centre.

Industry must also play its part and engage in the discussions as much as possible including considering any useful collaborative works in ensuring the right standards are developed. COLT firmly believes that it is its own responsibility to engage directly in the development and roll out of any new NGA products and to ensure that its specific product and network requirements are shared. COLT has been instrumental in contributing to industry fora such as NGNuk to try and define the Ethernet interconnect standards going forward. It is building on this work now with the product specifications for ALA.

D. Key to delivering effective competition and investment is pricing

Question 10 - How far do stakeholders consider the pricing approach outlined here of pricing flexibility for active products and cost orientation plus considerations for risk is appropriate at this stage of market development?

An important part of this NGA consultation is based on how pricing of any new network might be regulated, and Ofcom debates various different mechanisms that might be used. COLT’s experience with Openreach product launches would point it towards favouring regulatory mediation even with EoI instituted. There seems no significant reason as to why existing regimes (i.e. market reviews followed by appropriate remedies for SMP) should not be followed for NGA too.

Whilst it is difficult to comment in detail on pricing policy given the early stages of product and policy development, COLT would be concerned to see any liberal pricing regime carried forward should the anticipated alternative market constraints fail to materialise. We have already commented earlier in this paper on the danger of an effective UK duopoly in this market being established and would not wish pricing to be unmanaged if this was the case.

One point COLT made in its response to the Commission’s draft recommendation (see above) related to the assessment of risk in considering NGA investment. It may be worth re-iterating here. COLT pointed to the different risk profiles that arise depending on the extent to which the NGA investment is intended as an open access “utility” type project or as a project which is designed to provide a competitive advantage to the developing operator’s retail business. In the former utility case, the key question will be the extent to which the developing operator will be able to attract sufficient levels of revenue-paying services from any other providers offering retail services. In the second instance, the business case depends upon the capturing by the developing operator itself of high retail revenues and market share. In each situation, the developing operator will have a different motivation for the investment, different expectations regarding the desired return on investment and a different risk profile. This would be worth bearing in mind vis a vis the decisions Ofcom might make as to how to assess risk.

Question 11 - Will indirect constraints allow for an approach based on more price flexibility for active products? How will such an approach affect the incentives of different operators to invest and deliver super-fast broadband services to end customers?

COLT is not convinced that there will be sufficient constraints set on ALA to allow for significant price flexibility. SLU is a difficult alternative to run and it is by no means clear that any operators have yet expressed a clear set of intentions to invest. COLT has no plans to go down this route itself and can foresee considerable operational and practical difficulties, let alone the problems with making the economics work. In addition, the alternative technologies that “threaten” to constrain fixed solutions are not yet convincing. Although wireless offers other advantages such as coverage and mobility, the
technology does not appear yet to be able to provide sufficient bandwidth or capacity to count as a serious competitor and this will likely take some time.

**Question 12 - What period of time would be appropriate for such an approach to ensure a balance between the need for longer term regulatory certainty with the inherent demand and supply side uncertainty in super-fast broadband and next generation access?**

Again, this is a difficult question given the uncertainty of supply side demand and telco’s investment plans. However, reasonably regular reviews should be carried out to monitor the situation and we would advocate less than the current four yearly regime of market reviews for this area. Annual reviews may be more appropriate given current extreme market uncertainty and the high risks to the competitive situation if any problems are allowed to perpetuate.

**Question 13 - What are the key factors that could make a review of any pricing approach necessary?**

Pricing policy should be reviewed with any step change in market conditions. Obviously the regulator will have to step a fine line however between balancing the rights of investors to manage their risk with its duty to protect competition and consumers.

**E. Eventually there will be a transition from copper to fibre**

**Questions 14 – 16**

- How far can the generic model for transition outlined here deliver both incentives to invest in next generation access while ensuring existing competition is not undermined?
- What triggers would be appropriate for the commencement of any transition process?
- Once triggers or circumstances for transition are achieved, what would be an appropriate period for the various phases of transition (consultation, notice period, transition)?

COLT broadly supports the generic model Ofcom outlines for managing transition. It would advocate information exchange at a higher level too; for example a requirement for SMP providers to publish annual reports on their proposed NGA developments at least 18 months in advance of any major NGA developments which might lead to the closure of local exchanges or the migration of concentration points. We agree with the triggers that Ofcom has identified for commencing any such transition process.

**Question 17 - Over what geographic area should any process of transition be managed, for example region by region or nationally?**

It is becoming ever more obvious as plans are shared that there is likely to be a range of developments taking place regionally that will result in a certain amount of sub-geographic roll out. This obviously creates complexity but will be difficult to avoid in practice.

**F. Regulation can play a smaller role in increasing revenues**

**Question 18 - What actions, if any, should Ofcom undertake to support new revenue models from next generation access?**

COLT generally agrees with Ofcom’s comments in this section of the consultation and recognises that Ofcom’s role here is really restricted to providing clarity on regulatory or legal impediments and promoting suitable codes of conduct or best practice guidelines that, whilst protecting consumers, will not impede development of alternative commercial regimes.
G. What role can the public sector play in next generation access deployment

Question 19 - What role should public sector intervention have in delivering next generation access?

NGA investment is proving to be a particular area of interest for the public sector (e.g. the South Yorkshire scheme). Any such involvement could have a significant influence on the profitability of existing communications infrastructure and on the competitive position of communications providers. It may be worth considering the influence that can be exerted on such public schemes in assessing the type of network topology that could be rolled out to maximise the chances of fair competition going forward. We referred earlier in this response to our preference for a point-to-point fibre to the premises build which would greatly enhance the potential for proper competitive service provision in the future. We recognise the legal and practical limitations of trying to mandate this however but would recommend that perhaps some separate detailed guidelines on public investments NGA be issued. These could work at EU wide or UK specific. The DTI and Ofcom jointly issued a best practice guide to public broadband schemes in February 2007. Perhaps this might be a place to begin an updated review.

H. A proposed framework for action

Question 20 - Are these the right actions for Ofcom and other stakeholders to be undertaking at this time? What other actions need to be taken or co-ordinated by Ofcom?

One comment that COLT would venture here relates to the work Ofcom is doing across the board on next generation networks in general. The need for transparency in all of these areas is critical to achieve a consistent and correct approach to this ever evolving subject. Whilst the approach from a policy perspective appears fairly holistic sometimes the links are not being made between some of the more practical aspects of the work e.g. making the link between the work carried out by NGNuk on NGN interconnect, and the product development taking place under the work being done by the ALA forum.

As already stated we would like Ofcom to establish a clearer and more direct route with which to engage more fully with those providers serving business customers and for businesses to also input into. We would like this route to be distinct and separate from those serving residential markets. We note from Ofcom's Plan for 2009 that they plan to conduct research work on the business market later in the year which we strongly welcome. However we urge Ofcom to ensure that the current path of regulatory review does not foreclose the needs of business customers through late provision of key information, failure to adequately consider business needs or a bias towards residential consumers.