Question 1: What can Ofcom do to encourage timely standards development for new build NGA wholesale access products and interfaces? Which industry body is best placed to undertake the standardisation of these products and interfaces? What action should Ofcom take if these standards fail to materialise?:

The DSL Forum has four active work items relating to GPON that are relevant to the Next Generation Access products that could be deployed in FTTP new build scenarios:

Architecture related:

? WT-156 : Extending TR-101 to GPON Fibre Access Systems

? WT-167 : PON-fed DSLAMs

CPE related:

? TR-142 : Framework for use of TR-069 with PON Access

? WT-155 : Requirements for Optical Residential Gateways

Working Text WT-156 extends our successful TR-101 on Ethernet-based broadband architecture (which has been widely deployed by DSL operators both in the UK and globally) to work with GPON access technology. WT-156 covers functionality related to four of the key capabilities that Ofcom has cited as critical for a successful GEA FTTP wholesale product, namely: QoS, multicast, security and interconnect. Our work on CPE addresses the CPE remote management and integration issues that relates to Ofcom?s fifth key capability for GEA wholesale products. The DSL Forum TR-069 remote management protocol is widely accepted as the de-facto approach for managing broadband and CPE equipment spanning home gateway routers, VoIP, ATAs, Set Top Boxes and network-attached storage devices. TR-069 equipment has been manufactured by almost 50 vendors, deployed by over 20 telcos/service providers and there are now over 30 M units in service worldwide. TR-142 and WT-155 extend the use of TR-069 management protocol for use with GPON CPE.

In developing these global recommendations or standards, the DSL Forum co-operates extensively with other industry fora and standards bodies to ensure that existing protocols and standards are encompassed in our work as much as possible. For example, our GPON recommendations leverage the work of the ITU-T for GPON physical layer standards, ATIS OAN on GPON requirements, ITU-T and IEEE on Ethernet operations and maintenance functionality and also the IETF for use of the IGMP protocol in multicast. This global cross-industry co-ordination goes beyond simple liaison communication of documents. Our Board of Directors has a Fibre Oversight Committee responsible for overseeing and co-ordinating our work in the area of GPON. Recently some of our leadership team met with the ITU-T and FSAN leadership team to agree the relative roles of the DSL Forum TR-069 management protocol and the ITU OMCI GPON management protocol to ensure that such work is complimentary and meets industry requirements. Hence the DSL Forum serves as a

focal point to bring these global and industry standardised ?components? and point solutions together to deliver a coherent end-to-end architectural and management solution for Next Generation GPON access.

Having examined Ofcom?s requirements for GEA FTTP wholesale products, the DSL Forum considers that its work in the area of GPON standardisation activity is directly relevant and addresses many of the key requirements that Ofcom has in terms of architecture, equipment and management functionality for GEA FTTP products. Hence in terms of timely standardisation for new build GEA access products and interfaces, the DSL Forum would encourage Ofcom to align wherever possible with global standards and to communicate any UK-specific requirements to the DSL Forum as soon as possible. In addition, if an NICC GEA/FTTP working group were to be established in the UK then the DSL Forum would encourage Ofcom to steer such a group to base their work around the DSL Forum GPON architecture and CPE/management recommendations in order to achieve the benefits of global equipment interoperability and economies of scale. The DSL Forum would be very pleased to provide its completed Technical Reports and any relevant GPON Working Texts to NICC. Further information can be obtained from our website www.dslforum.org

In terms of availability of our work on GPON, TR-142 is already complete. WT-156 should be complete by early 2009. WT-167 and WT-155 are at an earlier stage of development but we hope to complete them in 2009.

Question 2: Do you agree with Ofcom?s approach to promoting competition and consumer choice in new build fibre access deployments?:

Question 3a: Do you a. believe that the existing obligations must be met by replicating the existing copper products, or that an alternative approach could be satisfactory? What are the implications of replicating existing products on fibre?:

Question 3b: Do you agree that SMP holders rolling out fibre do not need to roll out a copper network in parallel solely to meet their LLU obligation?:

Question 3c: Do you agree with Ofcom?s approach in relation to WBA and new build areas?:

Question 3d: Do you believe that the WLR obligation must be met by replicating the existing copper product, or that an alternative approach based on an ALA-type product would be satisfactory?:

Question 3e: Do you believe that the CPS obligation must be met by replicating the existing copper product or that an alternative approach based on an ALA type product would be satisfactory?:

Question 3f: Do you believe that the IA obligation must be met by replicating the existing copper product or that an alternative approach based on an ALA type product would be satisfactory?:

Question 3g: Do you agree with our proposal to interpret GC 3.1 (c) as being met through the provision and use of a battery backup facility to maintain uninterrupted access to emergency services in new build developments?:

Question 4: Do you think access to the duct network, including non telecoms duct, is a potentially feasible means of promoting competition in new build? If so what types of commercial and operational models could successfully support such access arrangements in the UK?:

Comments:

The DSL Forum was formed in 1994. It has over 180 member organisations spanning all segments of the broadband industry including ISPs, incumbent telcos, LLU operators, network equipment vendors, CPE vendors, OSS suppliers, academic institutions and consultants. It provides Technical Recommendations (TRs) and Working Texts (WTs) to the broadband industry that covers broadband network architecture, interoperability test specifications and associated management protocols and data models. The DSL Forum has been working on Next Generation Access technologies (especially GPON and VDSL2) for the last three years. Much of the DSL Forum?s work is agnostic to the access technology and is not just limited to DSL. In addition to our own activities on GPON, the DSL Forum has also been actively working with other industry organisations in the areas of Femto Cells and WiMax.

The DSL Forum submission is only in response to question 1 in the Ofcom consultation document. It would be inappropriate for the DSL Forum to comment on the other three questions given the commercial and regulatory implications for our various Members that have a diverse range of business interests in Next Generation Access.