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

Older and disabled people in the UK are currently unable to take advange of technologies and applications that are allowing their counterparts in other countries worldwide to lead more independent and empowering lifestyles. Thus, the quicker NGA is rolled out, the sooner older and disabled people will be able to benefit from them!

Academics, scientific researchers and university students throughout the country already benefit from having access to high speed broadband access, provided via the JANET fibre network (www.ja.net), ultimately owned by the UK Further and Higher Education Funding Councils. We believe Ofcom should investigate how feasible it would be to expand and open up this network for business and consumer use. The JANET network is already operational nationwide and can support symetrical speeds of up to 10 Gbps. TeliaSonera International Carrier, which supplies IP connectivity to JANET, has a 20,000km European fibre network. If a way can be found to open up JANET for business and consumer use, it could of course possibly substantially reduce the costs and time taken to build and deploy NGA.

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

The consultation document suggests that it might be relatively easy to identify some regions that are unlikely to be commercially viable (4.28).

Poorer areas/communities have relatively large numbers of disabled people since there is a link between poverty and poor health[1]. Isolated/rural areas also have relatively high proportions of older people.

When considering at what point Ofcom regards it worthwhile intervening, our suggestion would not be to necessarily use price intervention, but to look for creative solutions. While we don't want to discourage investment, we need to recognise that investment without any concern for reducing the digital divide should not be an option either.

We accept that the copper based telephone line infastructure of the UK can only support broadband connections of speeds of upto 24Mbps provided ADSL2+ technology is rolled out by network operators, distinct from Virgin Media's cable network which will offer users guaranteed 50Mbps next year and perhaps faster in the future. We also have to accept that the roll out of fibre based networks is and will be a financially expensive exercise.

Therefore, taking into account the fact that BT Wholesale aim to roll out an "up to 24Mbps" service to around 95%+ of the UK population by mid-2008 following smaller scale deployments by network operators using Local Loop Unbundling, we feel that this presents a strong case for saying that **from that point onwards** the roll-out of NGA could be prioritised in major cities and towns with other less populated areas following later. This needs led approach would enable the majority of consumers and major businesses to benefit in any event on the basis that they will be able to gain NGA quicker, limiting some of the cost burden for network providers at least initially, many NGA applications being feasible albeit to a limited extent at speeds of up to 24Mbps. However, in terms of rolling out NGA, we strongly believe that Ofcom should license more than one nationally available network as well as perhaps networks which are exclusive to major cities, ensuring strong competition to BT, whilst also encouraging the deployment of alternatives to fibre in smaller communities to

[1] Marmot M & Wilkinson R (Eds) (2006) Social Determinants of Health, Second Edition, Oxford: Oxford University Press.

prevent them from falling too far behind. One such technology is Long-Term Evolution, which pending approval of technical standards is predicted to be rolled out by mobile telephony network operators in the UK from 2010 offering broadband speeds of up to 100Mbps downstream and 50Mbps upstream, it reportedly being possible that convertor boxes will be available to allow HD video to be watched on television sets using these networks.

We also feel there is a need for NGA providers to avoid the current commonly experienced consumer/business confusion associated with the roll out of Local Loop Unbundling whereby it is possible for small pockets of a given city or large town not to be covered by a provider's network simply because the BT exchange in that area is smaller and thus less economically viable than all those surrounding it. Ofcom should therefore consider drawing up an agreed map of all inclusive NGA coverage areas. For example: London, Birmingham, Manchester, Edinburgh, Glasgow, Cardiff, Belfast, Carlisle, Aberdeen, Chesterfield, York, …….

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

ACOD agrees with Ofcom's proposals. However, we also feel it important that Ofcom stresses to investors that although many of the benefits older and disabled people will get from using NGA can be classed as "social" and thus might be interpreted as being risky, the primary reason why they should invest in them is because older and disabled people are still consumers regardless of their needs, and attracting them as customers is the investor's *real* opportunity and challenge. However, with regard older and disabled people, it must be stressed that the "socal need" is very important as for some, other social outlets are currently somewhat limited, for example by being house-bound or by having poor access to transport links.

Conversely, if the need is seen as being "social", there is surely an argument for saying this should be seen as a good thing by potential investors as Government is more likely to want to underpin an investment having such aims.

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

Yes. ACOD support the need for Next Generation Networks to be as innovative and cost effective as possible so that older and disabled people can get the maximum benefit available to them from the deployment and use of this life transforming technology.

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?

There are several socially beneficial applications of NGA that fall into the category of public service provision for the population in general, and which are especially likely to benefit older and disabled people. Therefore we agree there may well be a case for the NHS, certain Government departments (for example, Department for Children, Schools and Families; Department for Innovation, Universities and Skills; and Department for Work & Pensions) and the Devolved Administrations sharing or subsidising at least part of the costs of both network build and use.

As an example of good practice, we note that the US Development Agency has a Broadband Division which provides grants to provide broadband facilities for smaller, primarily rural communities of 20,000 inhabitants or less. When higher speed broadband is provided, the main application it is used for is understood to be tele-medicine. See http://www.usda.gov/rus/telecom/broadband.htm

A. What applications and services could Next Generation Access enable that would benefit older and disabled people?

- The increased use of tele-commuting and home-working would broaden/increase employment opportunities for disabled and older people, particularly as this overcomes potential physical accessibility and geographical barriers to the workplace. The use of such technology should be encouraged generally in any event, not least as it reduces transport use and is more environmentally friendly We would like to point out that if NGA were used for such a purpose on a regular basis, we would envisage the employer contributing towards the costs of installing and using the service in the user's home. We caution however that NGA should NOT generally be regarded as a substitute to having to provide physical accessibility wherever possible.

- Long distance learning and training.

- Evidence from other countries (notably Canada, USA and Australia) suggests Telecare and Telemedicine applications could substantially reduce the level and costs of delayed in-patient discharge and/or "bed blocking" within the NHS. Recent Government figures show that during 2006/7, over a million "bed days" were lost in the NHS for these reasons.

- The use of NGA is likely to enhance development of remote British Sign Language/English Interpreting and Lipspeaking services, which are seen as one means of both addressing the critical shortage of these Language Service Professionals and delivering greater access to their services in rural areas. Deaf students in further and higher education are also likely to benefit. Indeed, noting that BSL is now classified as an official language of the UK, ACOD firmly believe that Ofcom have a duty to ensure that everything possible is done to enable BSL users to communicate on a nationwide basis as effectively and as quickly as possible.

- Tele/videoconferencing for disabled/deaf people and their organisations domestically and internationally.

- The ability to transmit large files quickly and securely is important in the context of both older and disabled people as well as the public in general. The security of government and individuals' information could probably be better assured by taking the network computing approach – whereby all information is stored and accessed centrally, hence risk would be minimised if laptops and/or data disks were lost.

- Video On Demand (watched via TV or PC or cinema screen) - This is widely expected to become the basis of TV/film delivery and distribution worldwide over the

next few years. It brings the capability to cheaply start niche channels and services purpose designed for small audiences (PlayTV UK – www.playtvuk.com - will become the main proponent of this particular capability in the UK when their service is market launched in April '08 – they currently have a test service operational). VOD is important to disabled people as it can be an independence tool both replacing video/DVD rental, potentially eliminating the physical accessibility issues associated with it, and being used as a means to personally target the disability community with content that is tailored to their specific individual needs as a whole or in parts.

- HDTV would provide benefit to some disabled users as it provides better definition of both picture and sound.

- Communication between families in the UK and abroad – would particularly benefit older people – This could be via either VoIP or videoconferencing.

- Enhanced potential for home automation and use of similar assistive technologies would aid the independence of disabled people.

- Digital CCTV for security and care communications. NGA would enable superior image quality and greater frame rates which are especially important in systems with large numbers of cameras sharing the same bandwidth connection.

- Further applications and benefits may emerge as a result of work undertaken as part of the European Commission sponsored MonAmi Project (www.monami.info), with which ACOD hope Ofcom can somehow become associated.

B. Could these be supported on current broadband or other distribution mechanisms?

The applications above may be possible using current broadband networks, but some (especially those involving video, including sign language and lip reading) are not currently very effective using an “up to 8Mbps” connection due to contention and other line quality issues. These would be partially eliminated by higher speed networks.

Furthermore, when several members of a family, or occupants in a building, are using the same connection simultaneously for any of these purposes (as could very well be the case now or in the not too distant future) they will require extra bandwidth. Similarly, at homes for older people, where there are a number of people living in one accommodation, larger bandwidth levels may be needed to ensure that they can use the facilities.

C. What barriers are there to delivering these services to older and disabled people?

We would expect that demographically there may be relatively higher numbers of older and disabled people in poorer areas of the country because poverty is often linked to a lack of health care. If this is the case then they might be in areas which would be less attractively commercially for NGA, and hence would be discriminated against if commercial factors alone dictated the supply of NGA.

We recognise that unless a case of providing to a mass market is shown, then NGA may not be regarded as the right solution for applications of Social benefit. However upgrading a street cabinet with NGA would affect typically 350 homes, and so would make a significant improvement in what is available for a council estate, or a rural community.

There may be relatively high numbers of disabled people in poorer areas of the country, because poverty is linked to poorer health; there are also relatively high proportions of older people in rural areas.

For many groups, including older and disabled people cost will be a key factor in determining whether and how quickly they might benefit from NGA. However, some (for example, disabled people in adult, further and higher education) will benefit sooner.
Noting that the use of satellite to provide NGA may be a future possibility (this would be particularly helpful in rural areas), it should also be borne in mind that there are now an increasing number of people with disabilities living independently in properties primarily rented from Housing Associations who traditionally restrict tenants from installing satellite dishes. Providing fibre to the home or street cabinet would help negate the need for involvement by Housing Associations or other landlords.

Two other issues of concern are media literacy and usability. Although it is difficult to assess whether the technologies behind NGA will in themselves have any significant impact on media literacy, it is without question or doubt that NGA has many applications which can serve to increase media literacy. NGA could be provided via such a wide range of products, it will be difficult for Ofcom or any other body to control the usability of the products it may be embedded in. However, we use this opportunity to remind Ofcom and equipment manufacturers alike of the importance of inclusive design and that obligations exist in this regard under the Disability Discrimination Act.

D. What is the magnitude of the issues – how many consumers could benefit?

The UK population in general can benefit from the deployment of NGA. However, older and disabled people could potentially derive greater benefits than other consumers. It must be remembered that the UK population is growing rapidly and forecast to be getting older in general terms for the foreseeable future.

There are estimated to be 10 million people with disabilities in the UK according to the last official census, the majority of whom would benefit from at least one or more of the applications listed in Sub-section A above. Of this number, the RNID estimate there are around 300,000 deaf people in the UK who rely either on sign language or lip reading.

E. What are the risks to older and disabled people arising from

- ***Non-availability***
- ***Lower take up***
- ***During periods of transition***

In some cases it is the personal choice of older people that is behind the lower take-up of new technology. However if applications were available at cost-effective rates, then family members or even public services such as the NHS may provide them for their older relatives or disabled clients. In the case of older people, research (including that undertaken by ACOD on and around the issue of Digital Switch Over) shows that once the older person has been introduced to the technology, then usage may well be regular.