**Joint UK submission from the Department for Business, Innovation & Skills and Ofcom to
the European Commission's Consultation on
Universal Service Principles in e-Communications
May 2010**

Introduction

1. We welcome the opportunity to contribute to the Commission's public Consultation on Universal Service Principles in e-Communications. The scope of the Universal Service Obligation (USO) in the UK is set by Government through its Universal Service Order[1]. The Department for Business, Innovation and Skills (BIS) is responsible for specifying the services which comprise the USO in the Universal Service Order. Ofcom, the independent regulator for the UK communications industries, is then responsible for implementing the Order.[2] Given our respective roles with regards to USO, BIS and Ofcom consider it appropriate to respond jointly to this consultation.

2. It should be noted that a General Election was held on 6 May. This response reflects the policies of the Government prior to the election and policies may be subject to change following the formation of a new Government. We would be happy to share further details if new ministers develop further policies or approaches.

Current UK Framework

3. Ofcom has designated British Telecom and Kingston Communications (in the Hull area only) as Universal Service Providers (USPs). The following requirements apply:

   - Facilitate calls to the emergency services
   - Uniform pricing – services within the scope of USO must be charged at the same price throughout the UK
   - Facilitate functional internet access
   - Meet reasonable requests for connection – USPs must provide a connection upon request unless the costs of doing so would be excessive
   - Provide a social tariff that departs from normal commercial conditions
   - Reasonable access to public payphones – USPs face restrictions on the removal of loss making payphones where local communities demonstrate local need
   - Provide directory information & a directory enquiries service – the information should be updated every year and a service should be available to those using public payphones
   - Allow consumers to monitor and control expenditure – e.g. itemised billing

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[1] For more information on the Order please see: http://www.uk-legislation.hmso.gov.uk/si/si2003/20031904.htm
[2] Under section 65 of the Communications Act 2003.

- Ensure equivalent access for those with a disability – special measures must be taken e.g. the provision of a text relay service

4. In the UK, broadband is not currently part of the USO. The obligation to facilitate **functional internet access** currently refers to a line capable of supporting a dial up modem (based on a benchmark connection figure of 28.8 kbit/s). This is reflected in guidelines issued by Oftel (Ofcom's predecessor) in 2003. Whilst the guidelines are not legally binding, they will be taken into account in addressing a complaint about, for example, unsatisfactory data rates. Each case is dealt with on its merits. The Guidelines help to ensure consistency of approach and some degree of certainty for both end-users and designated providers. Evidence to date in the UK demonstrates that internet connections of this type have, however, been superseded by higher-bandwidth broadband connections.

General comments

5. We note that the Commission's consultation is set in the context of recent developments, following the adoption of the revised Framework for Electronic Communications and Services, which introduced greater flexibility for Member States in the definition of data rates for "functional internet access".

6. Broadband, therefore, seems to be the primary focus of this exercise. Before answering the Commission's specific questions, we would like to submit some general comments on issues we think require attention. We consider that the debate on broadband and universal service should not concentrate solely on whether or not to include broadband provision within its scope, but also on what measures should be taken to increase take-up of broadband services. In the UK, for example, there are some 12.5 million people not online, and one third of those see no relevance or benefit to being online. This may be a deliberate and informed choice and may not require intervention on market failure grounds, but there may be specific circumstances in which public action is deemed appropriate.

7. Extension of broadband availability, whether through a USO mechanism or otherwise, therefore needs to be coupled with a drive to increase digital participation to prevent the digital divide from widening. In the UK, a National Plan for Digital Participation was launched on March 2nd with the aim of getting 60% of those people who are not currently online, online by 2014. More detail on this is provided in our response to question 2 below.

8. One approach to encourage further take up of broadband which has been raised by the Commission is to improve the affordability of broadband services. It is important to emphasise that affordability is not an absolute measure, and that "affordable" access should not be equated with "cheap" access. Consumers will buy services according to their perceived value (even if they are "expensive") and the conditions of provision of the service (contractual ties, for example, could act as a disincentive). Therefore, and in addition to looking at the absolute price levels, we would encourage the Commission to give due regard to non-price factors and the need to win the "hearts and minds" of people without broadband connections.

9. Finally, the discussion around availability of digital communications services should not be limited to fixed networks covered by the USO. In 2008, Ofcom conducted a broad strategic review of the UK's mobile sector to analyse how it performs for consumers and citizens and what pitfalls and challenges they face. Availability issues were revealed – with elderly and disabled people still having lower take-up and coverage gaps (not-spots) persisting. In July 2009

Ofcom, for the first time, published maps showing 3G coverage by operator.[3] Ofcom has highlighted 'mobile not-spots' as one of its priorities in its 2010/11 annual plan. As a first step, Ofcom will try to measure, where appropriate, the size and location of the mobile not-spots in the UK and to find out why they exist as well as the impact they may have on people. In addition, on mobile broadband, Ofcom will research how consumers are using this increasingly popular service and will try to evaluate the performance of mobile broadband networks.

10. For the above reasons, if following this broad consultation, you consider further changes to legislation, the UK would urge you to conduct a full and comprehensive review, including some of these other aspects relevant to the USO, and setting this into the wider broadband (mobile and fixed) debates, in addition to consulting further on any specific ideas coming out of this consultation.

The Commission's Questions

Question 1: In today's competitive environment, can the market be relied on to meet demand for basic e-communications services from all sections of society, thereby ensuring social inclusiveness?

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11. At present, access to electronic communications services has become a pre-condition for effective participation in society, and it is essential for economic activity. Access to voice telephony has long been considered essential for participation in society – hence the historic USO. Today, the internet in general – but broadband in particular – also seem to be fulfilling similar types of functions.

12. The internet has provided new channels for people to interact with democratic institutions and to become engaged in a range of activities associated with citizen participation such as being connected to the community or having access to government, independent and commercial services that are increasingly delivered online. This trend is likely to continue to increase.

13. While the market has already gone long way in facilitating availability and encouraging access and use to communications services, it is unlikely to achieve equal access for uneconomic consumers: those on low incomes – who cannot afford to pay, those in remote or "difficult" areas (not necessarily remote) and disabled people who need special, costly, arrangements to use services.

14. In this context, it is important to differentiate between network/service availability, and other issues such as penetration, accessibility, usability and affordability which are equally, if not more critical, in the pursuit of social inclusiveness goals. We elaborate on these aspects in subsequent questions.

Question 2: If not, what is the best policy to allow disabled consumers, those on low incomes and those living in geographically remote or isolated areas to access and use basic ecommunications services?

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15. There is no single "best policy" to ensure that disadvantaged groups access and use basic communications services. Rather, there is a need for a combination of policies, instruments and actors.

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[3] The maps can be access under
http://www.ofcom.org.uk/radiocomms/ifi/licensing/classes/broadband/cellular/3g/maps/3gmaps/

16. The universal service obligation is one such instrument, and acts as a safety net mechanism to ensure the inclusion of those who would not otherwise be served and/or would be involuntarily excluded from services enjoyed by the majority of consumers. But it is by no means the only one and some of the challenges are not easily addressed via the USO requirements.

17. It is arguable that different problems can be met in different ways without the need for an absolute regulatory obligation. In the UK, a Universal Service 'Commitment', as opposed to 'Obligation', has been made to enable access to 2 Mbps to all areas of the UK by 2012. Commitment implies that the Government has committed to part-fund the UK telecoms network.

18. The focus in the UK has now moved to issues of take-up, as increasing broadband availability will not automatically result in higher take-up of internet services. While the majority of individuals and businesses now have broadband internet access, there remains a significant minority of households without access to the service (about 30%) even though it is already offered to them.[4] Ofcom looked at the reasons why UK adults do not have the internet at home and the barriers that prevent them from taking it up in the future.[5] Around 42% stated that the main reason for not having the internet at home was lack of interest or need (self-excluded); the remainder stated financial reasons (financially excluded).

> ### OFCOM research "Accessing the Internet at Home" (June 2009)
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> **The self-excluded**: 42% of adults stated their main reason for not having the internet at home was due to lack of interest or need. They tended to be older and retired and 61% have never used a computer. This group shares a sense of indifference, with many struggling to express any reason why they should have the internet at home. Some also felt they were too old or believed that it is for younger people. Over two fifths (43%) of adults who currently do not have access to the internet at home say that they would choose to remain unconnected even if they were given a free PC and broadband connection.
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> **The financially excluded**: Concern about the expense of using the internet is a significant factor for a substantial minority. 30% of adults said their main reason for not accessing the internet at home was that it was too expensive or they did not have the knowledge or skills to use it. Half of respondents in this group (51%) gave as their main reason expense or costs of monthly subscriptions, while just under three in ten (27%) said the cost of a computer or not owning a computer was their main reason for not having an internet connection.

19. Given the detriment citizens and consumers without internet access might suffer from a social exclusion perspective, we believe that a high priority, both at the European and at Member State level, should be to contribute to the reduction of the gap between broadband availability and broadband take-up, ensuring that if some people choose not to take-up and use broadband services, they do so on the basis of an informed decision.

20. In the UK, digital inclusion policy is addressing the needs of older people, and disabled people as well as other socially, economically or geographically disadvantaged groups. As noted previously on March 2nd 2010 a National Plan for Digital Participation was launched, with a target of getting 7.5 million new people connected to the internet by March 2014. The National Plan provides the framework for industry and the voluntary sector to develop the most creative and effective

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[4] Results from Ofcom Communications Tracking Survey, Q1 2009.
[5] See " Accessing the Internet at Home" by Ipsos Mori at:
www.ofcom.org.uk/research/telecoms/reports/bbresearch/bbathome.pdf

approach to incentivise non-internet users to get online, to further people's existing online skills and empower people to make the most out of online opportunities. Government is providing £300m for the Home Access Programme which will provide a free internet connection and laptop to families with school children. An additional £30m is for UK Online centres to get an additional 1 million socially and digitally excluded people online over the next 3 years. £12m is also being given to support the Plan through the work of the Consortium for the Promotion of Digital Participation, which Ofcom is leading, and whose members are drawn from industry, government and the third sector.   The Consortium will aggregate their resources and assets to deliver a UK-wide social marketing and targeted outreach programme.

21. Lack of usable equipment can also act as a barrier to take up and effective use of services. An e-Accessibility Forum has been established to explore and understand issue of e-accessibility, as well as develop and share best practice across all sectors. One of the objectives of this new group is to produce and implement an e-accessibility Action Plan that addresses the issues of people with particular needs so that they can participate fully in the digital economy.

> *Question 3: Broadband for all is a widely-stated policy objective at national and European level. What role if any should universal service play in meeting this objective?*

22. The UK Government stated the importance of broadband to our everyday lives in the Digital Britain Report (January 2009): "we are moving into a world where not having broadband access creates social and economic disadvantage – whether it is for children keeping up with homework with their school peers, job opportunities increasingly advertised online-only, cheap goods and services online and access to information"[6].

23. In the UK broadband is used by the majority of internet users (96% of home internet connections are now via broadband of which 88% via fixed broadband connections[7]) and over 60% of UK households have taken up broadband with an average speed of 4.1MB[8].

24. It should be recognised that the market has been very successful in delivering very high level of broadband availability and choice. BT, the incumbent telecoms operator, estimates that over 99% of its fixed telephone lines are capable supporting ADSL broadband at download speeds of 256Kbps or more and virtually all telephone exchanges are broadband enabled. In addition to ADSL broadband via BT's twisted copper pair networks, approximately half of UK homes also have access to cable broadband services, with Virgin Media, the primary cable operator, offering speeds of up to 50Mbps across its network.

25. Mobile broadband is also available from 5 MNOs using 3G technologies. The take-up of mobile services in the UK continues to grow, and has now reached about 89% of the total population. The proportion of households with access to a mobile phone (92%) has already overtaken the proportion of households with a fixed line (87%). We expect the number of mobile call minutes to overtake fixed by mid-2010[9].   Within this context the take-up of mobile data services in the UK, including mobile broadband, has been rapid, particularly over the past two years[10]

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[6] Digital Britain Final Report June 2009, pg 52: http://www.culture.gov.uk/images/publications/digitalbritain-finalreport-jun09.pdf
[7] Consumer Experience Research Report, Section 2 Summary of findings, pg 5: http://www.ofcom.org.uk/research/tce/ce09/research09.pdf
[8] Ofcom Broadband Speed Research Jul7 2009: http://www.ofcom.org.uk/media/features/broadbandspeedsjy
[9] *The Communications Market 2009*, Ofcom (http://www.ofcom.org.uk/research/cm/cmr09/)
[10] When we discuss 'mobile data' services, we mean services other than voice calls, although in some contexts (for example, in industry reporting), SMS is sometimes excluded. Examples of mobile data services include

26. Mobile broadband is having an impact on the UK's mobile sector, both as a result of the new devices and services that it has facilitated, and because of its reliance on networks that can support high bandwidths, such as 3G networks. The use of 'smartphones', and other handsets capable of using sophisticated data services and accessing the internet, is growing. Thirteen per cent of new handsets sold in Q3 2009 worldwide were smartphones, up from 12% in Q3 2008[11]. The reported use of mobile broadband by households is also increasing. According to our consumer research, by the end of Q3 2009 around 3.9 million households had a mobile broadband connection (approximately 15% of all households).

27. Ofcom's *Communications Market Report 2009* (CMR) [12], included statistics for mobile availability[13] as per the table below.

Mobile population coverage in 2008 across the UK and nations

Platform Availability population coverage in 2008	2G %	3G %
UK-wide	98	87
England	99	91
Wales	92	67
Scotland	89	67
Northern Ireland	92	43

28. The table shows that mobile coverage for 2G is extensive at 98%, although it varies across nations, with the greatest availability in England at 99%, and the lowest in Scotland at 89%. The picture for 3G coverage is different. Figures are high in England overall, but vary markedly in the nations, with only 43% availability in Northern Ireland. Mobile broadband download speeds are generally lower than fixed access broadband, with potential speeds up to 1Mbps[14].

29. However, market forces alone are unlikely to satisfactorily provide universal access to broadband. In the UK the market appears to have reached a plateau in terms of delivery of current generation broadband. This means that there are some households where the market will not deliver to (uneconomic areas).

30. For example, in the fixed line context, one of the main reasons for non-availability of ADSL broadband is the excessive lengths of affected telephone lines. ADSL broadband speeds reduce with length of line and lines over 10Km are unlikely to support broadband. Whilst some households served by long lines will also have access to cable or mobile broadband, long lines tend to be more prevalent in rural area, and these areas are less well serviced by cable and mobile. Broadband 'not spots' are therefore more common in rural areas.

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email and other applications available on smartphones such as BlackBerrys or iPhones, and accessing the internet using a mobile phone's web browser. 'Mobile broadband' means specifically the service offered using a datacard or dongle that is plugged into a computer (such as a laptop or notebook) to connect that computer to the internet.

[11] Source, Gartner http://www.gartner.com/it/page.jsp?id=1224645

[12] http://www.ofcom.org.uk/research/cm/cmr09/

[13] Based on data sourced from the GSM Association/Europa Technologies.

[14] Epitiro Mobile Broadband Research October 2009 http://www.epitiro.com/news/epitiro-publishes-uk-mobile-broadband-research.html

31. Whilst availability of 'entry level' broadband at download speeds of 256Kbps or more using ADSL, cable, mobile and satellite broadband is virtually 100% in the UK, availability of higher speeds is lower.

32. Analysis conducted as part of the Digital Britain report (see annex) identified that 11% of UK households are unable to access broadband at a minimum download speed of 2Mbps using ADSL or cable.

33. It is worth highlighting that performance of ADSL broadband technologies can be degraded due to the presence of electrical interference resulting from poor telephone wiring within a consumer's home. We estimate that non-availability of 2Mbps broadband could be reduced from 11% to 7% by addressing these internal wiring problems. However, in the UK, it is the consumer and not the network operator who is responsible for the internal telephone wiring, as a consequence any proposed extension to a Universal Service Obligation on a network operator should recognise that some factors affecting broadband performance are currently outside of the network operator's control.

34. Increasing the minimum download speeds required under a USO from the UK current 2Mbps commitment will have a significant impact on the number of households affected, the range of technologies that are capable of delivering the service, and the costs incurred. For example, in the United States the FCC has proposed a 4Mbps broadband commitment and it is unlikely that existing ADSL, mobile and satellite broadband solutions would be able to deliver an equivalent commitment in the UK without major network upgrades. Ofcom's own research indicates that 19% of existing broadband subscribers achieve average speeds of less than 2Mbps[15].

35. The UK Government opted for a Universal Service Commitment of at least 2Mbps to be available by 2012. This was seen as an appropriate goal at a particular time, though not necessarily the final goal. 2Mbps was chosen after consideration of a number of criteria: the key services that are typically coming to be expected by broadband users; the bandwidth they require; the cost of delivery; and the average speeds prevalent in the UK. The view was taken that government intervention to ensure 2 Mbps universal service represented good value for money and delivery of a service that was in line with user expectations.

36. We are aware that other Member States have carried out their own market analysis and have set differing universal service ambitions.

37. In view of the differing approaches, reflecting different market developments, and taking into account the ability of member States under the revised Framework to adopt their own obligations with respect to the bandwidth needed for "functional Internet access" (which can of course include broadband) we are not convinced that an absolute "obligation" as opposed to the "option" for Member States under the current Framework is the best way forward.

> **Question 4: What impacts could an extension of the role of universal service to advance broadband development have in relation to other EU and national policies and measures to achieve full broadband coverage in the EU? What other impacts would be likely to arise regarding competition, the single market, competitiveness, investment, innovation, employment and the environment?**

38. Broadband availability can provide a range of benefits for all aspects of society:-

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[15] Ofcom Broadband Speed Research July 2009: http://www.ofcom.org.uk/media/features/broadbandspeedsjy

For citizens : financial savings, educational opportunities, employment potential, facilitating independent living for the elderly, access to online public services and overall greater participation in society.

For industry: commercial growth and increased commercial opportunities, particularly for small business.

For Government: stimulating growth, streamlined and more cost-effective delivery of public sector services

39. As noted elsewhere however, care needs to be taken to ensure that inequality of use and application does not widen social divides and create new ones.   It will be important to strike the right balance between fair competition and encouraging investment to minimise market disruptions as potentially there could be anti-competitive effects in some markets depending on the funding model used and speed chosen. In particular, competition could be adversely affected by member States being obliged to adopt obligations for broadband that could realistically only be met by cross subsidisation of the incumbent by other market players.

Question 5: If universal service obligations should prove necessary to achieve the policy objective of broadband for all, at what level (EU or national) should such obligations be defined, taking into account the different levels of market development across the current Union of 27 Member States?

40. The revised Universal Service Directive has provided Member States the flexibility to define the data rates for "functional internet access" according to their national circumstances. This change was strongly supported by the previous UK Government, who believed that it was important for each Member State, based upon the evidence and their national circumstances, to have the flexibility to design a universal service appropriate to the minimum service levels the majority of their citizens and businesses currently expect.

41. We recognise that balancing consistency of *approaches* across Europe, whilst responding to national circumstances is a challenge, especially for broadband where levels of penetration differ significantly across Europe. However, the outcomes can, and will inevitably differ in some cases. It is also important to consider the need to react quickly to changing market developments and associated social needs. By their nature, legislative processes at EU level can be long and complex, and impact on the effectiveness of national social policies. Some degree of national flexibility on broadband parameters will continue to be required.

42. Therefore, and while we believe that it is appropriate for the Commission to continue to set out the high level framework for USO, the UK would call for caution with regard to the detail of such obligations. For example, it may be inappropriate to set a minimum speed at the European level given that there are a number of factors that would likely prevent a specific speed from being enjoyed by all, all the time (such as levels of contention, type of connection, distance from the exchange, etc). Arguably it may be more important to look at the types of services that can be supported rather than the actual speeds.

Question 6: If a common harmonised universal service needs to be defined at EU level, should a mechanism be put in place to balance the need for national flexibility and a coherent and coordinated approach in the EU?

43. As set out above, the UK would caution against attempts to harmonise the detail of universal service obligations, particularly around broadband.

44. This, however, does not preclude even greater coordination between Member States and the Commission on many different aspects of universal service.

45. We believe, however, that this can be achieved through existing cooperation mechanisms, in particular through the Communications Committee (COCOM); in the High Level Group (which we assume will be established in the European Digital Agenda) and between National Regulatory Authorities and the Commission within BEREC.

Question 7: Irrespective of the scope of universal service, are mechanisms whereby funding is provided by the sector appropriate in the context of a regulatory environment that seeks to eliminate distortions of competition and promote market entry?

Question 8: In the context of the roll-out of broadband in Europe, is it still appropriate to limit the financial arrangements of universal service to market players in the ecommunications sector, while this provision would have wide-ranging benefits outside the sector, for instance, the delivery of information society services and digital content? Are other means of financing more appropriate?

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46. Whether sector funding is appropriate, be it an industry fund or funded by the incumbent, will depend on the market. In some cases, as noted above, there could be a real risk to competition if competitor operators were in effect subsidising the roll out of a network by an incumbent. . The challenge in considering how to finance universal service coverage is how to deliver basic e-communications services in a way that will allow for a continued level of competition in the interest of consumers, that minimises market distortions and that does not adversely impact on private sector investment plans.

47. A procurement body (Broadband Delivery UK) has been established to develop and implement the commercial and financial arrangements for delivery of the UK's 2Mbps Universal Service Commitment. That procurement process is currently developing the intervention and investment models which are appropriate for the UK.

Annex : The UK's 2Mbps Universal Broadband Commitment

UK Broadband Availability

The following analysis was presented in the Digital Britain Final report published in June 2009:

We estimate that today c.89% of UK homes can readily get a 2Mbps (or higher) broadband service from cable or ADSL. This means that c.11%, or about 2.75m, homes cannot readily get a 2Mbps (or higher) broadband service today.
We believe the main reasons that prevent these 2.75m homes from getting a 2Mbps broadband service are:

- Problematic consumer home wiring causing degraded ADSL performance (c.1.9m homes);
- Technical issues in BTs network, such as faults in cable joints or ingress of electrical interference that occur at random points across the network. (c.300k homes); and
- Telephone lines too long to support 2Mbps broadband using ADSL technologies (c.550k homes).

We have excluded all homes that are able to access broadband via cable. Broadband speeds via cable do not decrease as line lengths increase and so any households served by cable can achieve 2Mbps broadband. 49% of UK homes are passed by cable networks.

We have considered what the potential technical solutions might be to deliver a 2Mbps USC, our initial conclusions are:

- Home wiring problems resolved by the market and self help (c.800k homes);
- Home wiring problems resolved under a Universal Service Commitment through engineer visits (c.1.1m homes);
- Random technical issues in BT's network resolved by network engineers (c.100k homes);
- Long telephone lines resolved by upgrading to Fibre to the Cabinet architectures (c.420k homes); and
- Residual technical issues in the networks and remaining long lines resolved by wireless/satellite (c.330k homes).

The above figures are based on 100% take-up by consumers and can thus be scaled down according to take-up assumptions.

Funding the 2Mbps USC

Ofcom's own analysis suggests that the costs of delivering a 2Mbps USC are:

- £385m if 70% of affected homes adopt broadband
- £492m if 100% of affected homes adopt broadband

This equates to costs of between £250 and £280 per assisted home depending on take up.

Ofcom estimated that in upgrading around 6600 cabinets with fibre (at a cost of approximately £30,000 per cabinet) will not only enable 420k homes to receive 2Mbps broadband, but will also provide increased broadband speeds for up to 1.5m homes who are already connected to the upgraded cabinets and currently achieve speeds of 2Mbps. In some cases these homes will receive next generation, 'super fast' speeds.