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A Broadband Universal Service Obligation – consultation response

Introduction

The Foundation for Information Society Policy (FISP)¹ was formed in 2012 with the aim of contributing independent advice to support policy and regulatory developments in the communications sector. It is entirely independent of political parties, communications network providers and any significant commercial interests in technologies, products and services.

Assertions

- *The defined target speed will not meet the future needs of the UK economy and:*
- *The provision of a 10Mb/s download universal service is technically unattainable with only conventional 'Fibre to the Cabinet' solutions.*
- *Failure to provide universal, fit for purpose, broadband connectivity will have social and regional policy implications – [even London is so affected](#). It is important that Ofcom is able to identify such unserved or twilight areas.*

Preliminaries

There is considerable support for the idea that the term "Universal Service Obligation" is no longer appropriate. It might be better to talk about universal service policy and not USO policy. A USO is one way amongst many of implementing universal service policy

FISP is clear that responsibility for policy on universal service rests with government, having due regard to advice from Ofcom. We also understand that the current CFI from Ofcom is intended to inform policy-makers and that government will launch a further consultation later in 2016 based on that information.

In our [response to the earlier DCMS consultation](#) on legislative options for a broadband USO, we doubted that the traditional approach to a USO was optimal. We laid out our rationale for that view. Rather than designating a few universal service providers, we proposed a new approach which builds on existing UK strengths and exploits new opportunities. Our proposed new approach does not sit well with the questions now set by Ofcom which to some extent appear to trespass on, or at least share an uncomfortable boundary with, policy areas. One such is the uncertain future of Openreach, which one might argue poses a chicken-and-egg quandary in that an independent Openreach would dictate a different set of answers to the USO issue than would otherwise be the case. On the other hand any prior decision on a USO seems certain to impact on Openreach's future.

¹ See www.fisp.org.uk

In detail, we note that answers to the questions in the CFI will depend on the intention of the USO scheme, which is not altogether clear. From the DCMS document of 23.03.16, it could be:

- a) To ensure that every individual can access broadband services of sufficient speed and quality, at affordable prices, to carry out those online activities that have become essential for social inclusion (such as email, web browsing, online shopping, use of government services).
- b) As a) but looking ahead some years, and assuming that requirements will become more demanding; in particular, that the online activities will include those which are already common and which may become essential for social inclusion (such as viewing catch-up TV online).
- c) Enabling every business to access broadband services of sufficient speed and quality, at reasonable prices, to carry out all the online functions required by their business, regardless of their employees' locations and the nature of the enterprise network to which they are required to connect
- d) Redressing inequalities of broadband access between urban and rural areas.

The 10Mbps download ambition appears to be a cautious, low-risk, minimal impact estimate of what might be adequate for b), which will also go some way towards (but will fall short of) c).

Key questions are how much nationwide implementation will cost, how quickly can it be done, by whom and who pays. Answers to those key questions are bound to lack credibility unless underpinned by statistics, especially cost information, which are sadly lacking at this time.

1. Specification and scope of the USO

How should the minimum technical performance of the USO be specified?

- Since the scheme is meant to be demand-led, we suggest a flexible attitude to what it should provide, aiming to satisfy the perceived and forecast needs of requesters, with a clearly-defined and minimum-cost upgrade path to cope with future demand. Business and residential universal services could well be different in both performance and price.
- One rational approach is to identify the online activities that are expected to be required for social inclusion (by the end of the design period for initial provision) and the network capabilities that these imply. This would point to public funding supporting a minimum specification, while leaving open the option of additional funding for higher specifications, which would often be preferred.
- By the time the details of any universal service based on the 2016 promise of 10Mbps downstream have been thrashed out it should be obvious that universal service for the 2020s and beyond must avoid being anchored on metrics rooted in the demand environment of a decade previously. As fibre slowly spreads throughout the network it should become easier to take advantage of its ubiquity in terms of extending its reach to local tails. A broadband universal service must be forward-looking but there is a plethora of opinion that is based firmly on the structure, technologies and economics of the sector over the past 20 years. FISP firmly believes that future policy must not be too tightly interwoven with the patterns of the 1980s. For example, introduction of a broadband universal service must incorporate measures to withdraw the existing telephony-based USO and the UK network's associated reliance on copper connections. See our comment on valid issues at Section 2 below.
- Ofcom should specify required levels of customer satisfaction ("Quality of Experience") with different aspects of service; providers could then translate this into technical (and

service) performance, taking due account of characteristics of the area and local activities and population. .

How should we ensure the USO is affordable? Should there be a social tariff for broadband services?

- This is another key question. It clearly depends largely on the cost of provision and expected returns. It will have a variable impact, depending on where in the UK the question of affordability arises. The issue is not confined to areas where new construction is needed, but includes areas enjoying high-performing broadband services, which, however, some people will find too expensive. Solutions for affordability of services based on new and existing infrastructure will not be identical, but consumer outcomes should be broadly non-discriminatory, with justification for any differential treatment.
- [Ofcom research](#) in 2014 showed that affordability was secondary to other barriers to broadband take-up for most groups. To be effective, affordability provisions should go hand-in-hand with addressing other barriers – typically lack of understanding of benefits of broadband, lack of skills and confidence to go online, and accessibility problems for people with disabilities. Government must continue to work with NGOs (Tinder Foundation, Doteveryone, etc) to overcome these. Funds spent in this way will pay off handsomely in terms of broadband take-up and use (see [Tinder report](#)). Higher take-up is not only an objective in itself, but it also (through spreading costs more broadly) reduces unit cost of provision, feeding a virtuous circle.
- Government and Ofcom should consider a general condition requiring all providers of broadband to the general public to include in their portfolio of offerings an affordable entry-level package (possibly pre-paid and/or with limited usage). There is a parallel here with the requirement for banks to provide basic bank accounts. Affordability can be demonstrated by take-up or market research among low income groups, and doesn't imply selling below cost. In embracing this concept of matching service quality and features with willingness and/or ability to pay, it will be important to avoid the trap of basing long-term policy on the local socio-economic profiles obtaining in 2016. Broadband connectivity should be provided to buildings, not to the people who currently happen to occupy them. Building use changes over time, occupancy changes, and neighbourhood profiles can and do rise as well as fall.
- In passing, we note repeated reference to the unserved areas associated with "rural" and "3%". In reality, twilight areas are found in city centres as well as in remote locations and there are significant numbers of consumers who swell the take-up statistics of superfast broadband but who, by virtue of distance from the cabinet, enjoy nothing like the headline figure. The unserved figure is probably closer to 20% and there is no ready solution under the current regimes. A broadband universal service might be the only practical answer for such people.
- Schemes for providing low-cost end-user equipment to reduce upfront costs should be revived – especially important for families with school children.
- If some groups still have affordability problems then government could consider either vouchers or loss-making social tariffs for those eligible (e.g. benefit recipients). Demonstrated net costs of these affordability provisions to providers could be met from the same sources as infrastructure costs – see below.

2. Demand for the USO

What might the potential demand for the USO be?

- Future broadband demand won't be the same as it is today and is most likely to be significantly greater. In fact, having regard to the recent commitment to introduce a 'right

to request' broadband service of at least 10Mb/s download speed, one might go further and assert that

- The defined target speed of 10Mbps will not meet the future needs of the UK economy and:
- The provision of a 10Mb/s USO is technically unattainable and operationally unaffordable with only conventional 'Fibre to the Cabinet' solutions.
- The capital and operational costs of point-to-point fibre when compared to adaptation of legacy networks have changed over the past two decades to such an extent that continuation with earlier investment models severely constrains economic growth and societal development. New models are needed. [One such proposal](#), based on research, comes from Diffraction Analysis.
- To some extent the Ofcom CFI tips its hat to the key questions articulated in the preamble to this response. But addressing them should be central to any advice to government, independent of discussion about whether 10Mbps downstream is too much or not enough, or whether an upstream target should also be specified.
- As shown by the [emerging findings from the market test pilots](#), actual demand will depend very much on public awareness, and presumably also on how the scheme is presented. Good publicity will be vital to fulfilling almost any objectives for the scheme.
- However, FISP observes that widespread, unsatisfied demand is now reflected in newspaper campaigns ([for rural broadband](#)) and by the growing volume of correspondence to the media from frustrated would-be users, together with an unprecedented degree of attention from both Houses of Parliament. The government will ignore this recent phenomenon – or will attempt to alleviate its impact with a short-term, asymmetrical 10Mbps solution - at its peril.
- Meanwhile, it is reported that [Ireland has launched its broadband universal service programme](#), with a national completion date of 2022 and in The Netherlands a [recent report](#) states that a third of all homes now enjoy FTTH connectivity.

3. Cost, proportionality and efficiency of the USO

Cost evidence

- No comment – industry has the data and Ofcom the skills to interpret it. Costs will be kept under control by competitive bidding, with a presumption that winning bids will be capable of upgrade to providing long-term, ultra highspeed, symmetrical connectivity..

Proportionality and definition of a 'reasonable request'

- The long-term aim, in the best interests of the country, must be to provide fit-for-purpose broadband to all premises that have mains electricity regardless of geo-location or occupancy. The timetable for achieving the aim will inevitably be lengthy, with a very long "rural tail".
- A short-term, interim approach would be to test any provision request against existing basic satellite offerings. If no more demanding, then the request is reasonable for the moment (and could be met by satellite service). If the request is more demanding (e.g. because high data volumes or low latency is required) the industry could consider setting cost limits based on generally available package prices; e.g. users might be asked to pay up to a 20% premium over these prices. The scheme might decline to provide service if expected costs exceed, say, 10 times average costs. In all such cases a future upgrade path must be identified and committed to.

Ensuring efficiency

- It is vital to the long-term success of universal broadband service that broadband capacity needs of an area over a few years be taken into account, rather than possibly isolated individual requests submitted sporadically over a similar period. Phasing out of

the voice telephony USO (as good quality voice service can be provided over broadband connections) must also be taken into account.

4. The universal service provider or providers

How should the universal service provider be designated?

- FISP thinks there should be an open competition, area by area, once users have had the chance to express their demands (either individually or as a community). Bids would be assessed taking account of quality as well as cost; and of likely future costs for upgrade, where this will be necessary. .
- Winning bidders should contract to provide service for, say, 10 years, after which period they can choose whether to stay in that business or to sell it as a going concern. Regulatory intervention by then should be exceptional but any scheme should allow for it.

5. Funding of the USO and potential market distortions

Funding of the USO

- It is not easy to see how a decision can be reached about commercial viability without full understanding of actual costs and the options for costs recovery – through connection or usage or other levies. However, there seems to be an inherent assumption in the CFI that “industry will pay”. This is not necessarily true unless there is a clear division between public policy objectives (naturally funded by the taxpayer) and the commercial reality of requiring a RoI.
- An incentive problem is inherent in subsidised universal broadband service. On the one hand the overall policy objective is to achieve near universal use of broadband services in order to make the UK economy more efficient and UK society more cohesive. On the other hand there will be strong incentives to minimise total subsidies, which would conflict with the overall objective.
- The underlying expectation must be that universal, fit-for-purpose broadband provision will pay off in the long term, taking into account the added value arising from its use as well as direct infrastructure revenues; so financing needs are mainly of a “bridging” nature (loans rather than grants; cf: BT paying back BDUK funds because of higher than expected take-up).
- Note that payoff will accrue to both public and private service providers making use of the connection, as well as directly to the infrastructure provider. Higher take-up of higher-quality services is not only an end in itself but also (1) has a progressive impact on innovation capacity, as evidenced in advanced locations around the world, and (2) increases the likelihood of delivering administrative cost reductions and applications effectiveness.
- Government funding, from general taxation, is recommended on economic grounds but may fall short of needs. Government should explore the possibility of supplementing it by donations/long term loans from industry (both carriage and content providers); or by innovative financing schemes such as special-purpose tradeable investment vehicles (broadband bonds?). Relevant funding lessons will surely have been learned from the Market Test Pilots. We are reassured by the recent realisation that State Aid restrictions are not appropriate where cross-border competition issues do not apply.
- Industry levies are complicated to devise, introduce and administer and should be a last resort if other funding approaches are inadequate.
- In all cases where public money is involved transparency of actual and forecast costs is paramount.

How could any potential market distortions of competition be minimised?

- There should be a continually updated published set of detailed maps showing actual and planned broadband infrastructure, together with homes and buildings beyond reach of that infrastructure.
- A “declaration” scheme could be considered, whereby non-dominant providers who declare (and then fulfil) an intent to serve a particular under-served area, unsubsidised, get a period of exclusivity in serving it.
- Any universal service scheme must work in harmony with (and may turn out to be a minor supplement to) continuing commercial investment plans, as boosted by intervention through the Universal Service Commitment, BDUK support for Superfast Broadband, and any similar programmes.

6. Review of the USO

When, and on what basis, should the USO be reviewed?

Review must centre on progress of adoption, rather than historical considerations of reliability, symmetry, bandwidth, latency, and stability. The chosen solution must be able to meet those considerations, and more. However, within that:

- There is likely to be scope in any scheme for contractors to shape their market to their advantage and to deter competition. Therefore operations should be fully transparent, include all relevant financial information, and open to public scrutiny and comment at all times.
- Minor changes in how the scheme is run could take place whenever warranted, following consultation.
- A formal review of how well the scheme has met its objectives should take place every 3 years.

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