Universal service obligation

Department for Digital, Culture, Media and Sport

RPC rating: fit for purpose

Description of proposal

The universal service directive (USD), adopted in 2002 and revised in 2009, provides the framework within which a broadband universal service obligation (USO) must operate. The 2003 Communications Act transposed the directive into domestic legislation, and delegated a number of functions for implementation of a USO to Ofcom, including the designation of universal service providers (USPs). The Digital Economy Act 2017 included enabling powers to introduce a broadband USO of at least 10 megabits per second (mbps). The proposal concerns the specifications for such a USO, to be set out in secondary legislation.

The objective of the policy is to provide a ‘safety-net’ for homes and businesses in the ‘hardest to reach’ parts of the UK expected to remain without access to superfast broadband. The proposal is to give individuals and businesses the right to request a broadband speed of at least 10 mbps, and for the USP to be obligated to meet this request, providing it can do so within a reasonable cost threshold. The IA presently assumes this threshold to be £3,400. Whether there should be a cost threshold, and the level at which it should be set, will form part of the consultation.

The IA considers four options:

1. 10 Mbps connection with zero upload specifications or quality conditions.
2. 10 Mbps download and 1 Mbps upload. (preferred)
3. 20 Mbps download and 2 Mbps upload with some quality conditions.
4. 30 Mbps download and 6 Mbps upload with a 10 Mbps committed information rate.

The IA also states that government is exploring, in parallel, a voluntary solution with industry.
Impacts of proposal

USPs will incur costs, up to a threshold, of providing broadband to those exercising their right to request it. USPs are usually providers with the most extensive networks, since they are most likely to be able to extend their networks at the least cost. (The USD requires that a USO should be delivered in the most cost-efficient means possible). The IA states that the majority of the UK’s fixed broadband infrastructure is owned and operated by two suppliers: BT Openreach and Virgin Media. The IA also refers to there being a growing number of smaller providers.

The publicly-funded superfast broadband programme, Telecoms Delivery UK (TDUK), has an objective of ensuring that at least 95 per cent of premises (homes and businesses) in the UK will have access to superfast broadband by the end of 2017. It is estimated that the planned strategy for achieving this objective will leave approximately 1.1 million premises without access to download speeds of 10Mbps or higher. This is the central assumption for premises in scope of option 1, i.e. that 1.1 million premises will be able to demand faster broadband. It is estimated that 1.8 million premises will be in a position to request improved service under option 2, rising to 1.9 million for options 3 and 4. The proposal will benefit individuals and businesses that exercise their right to request, and subsequently receive, faster broadband services.

Costs

Costs have been estimated using a bespoke economic model created by consultants Analysys Mason for the Ofcom report ‘Achieving decent broadband connectivity for everyone’. The model uses postcode level data and ‘cabinet data’ to estimate the speeds currently available to premises, and the nature of the infrastructure connecting each premise. It then estimates the new infrastructure needed to increase the speed to meet specifications, such as those required under each of the four options. Combining this with data on the individual cost of each part of the infrastructure, the model provides an overall cost. The IA assumes a take-up of 80 per cent, based upon the long-term level of take up of broadband services. On this basis, it estimates that the preferred option (option 2) would cost £1.46 billion (undiscounted) without a reasonable cost threshold. The Department adjusts these costs for optimism bias, using Treasury Green Book guidance. This results in a cost of £1.75 billion (discounted). This reduces to £1.295 billion with a reasonable cost threshold of £3,400.

Benefits

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The Department’s assessment of benefits is based upon the report ‘UK Broadband Impact Study’, and associated integrated econometric model, which it commissioned in 2013. The report describes the avenues through which economic, social, and environmental benefits accrue as a result of improved broadband. The report modelled five ‘routes to impact’ of the economic benefits: productivity growth of broadband using enterprises; safeguarding of local enterprise employment; teleworker productivity, labour force participation; and network construction impacts. By far the most significant of these is the productivity gains, where a literature review suggested that doubling internet speeds increased productivity by 0.3 percent.

The IA presents an overview of the output of the benefits model (pages 29-30). This shows discounted benefits (‘gross value added’) of £3.54 billion for the preferred option. Deducting the £1.295 billion cost, gives an estimated net present value of £2.25 billion. This figure is the overall net impact on business, including indirect impacts. The Department has not been able to monetise impacts on wider society at this stage.

Business impact target (BIT) assessment

The Department has sought to classify the benefits to business as direct or indirect in line with the steer provided by the RPC in January 2016. This involves classifying the time savings in undertaking existing business activities as direct and further productivity gains, through innovation or changing business models, as indirect. DCMS has drawn upon previous research evaluating the BDUK connection voucher scheme, where companies reported on how access to broadband affected their companies. From this, the average amount of productivity benefits assumed to be direct is around 70 per cent. This proportion has been applied to the ‘enterprise productivity growth’ category in the benefits model for the USO (the other three categories in the benefits model are assumed to involve only indirect impacts). This results in an estimated £1.33 billion of the overall £3.54 billion benefit being classified as direct. Deducting the £1.295 billion cost (which is assumed to be all direct), gives a business NPV (direct impact only) of £37.0 million. This translates to an equivalent annual net direct cost to business (EANDCB) of -£2.4 million (2014 prices).

Quality of submission

The Department’s assessment is sufficient. The Department has provided a clear rationale for the proposal and detailed consideration of alternative options. This includes monetisation of all options, which is particularly welcome at the consultation
stage. The assumptions made will be tested during consultation. The IA also provides a good sensitivity analysis of costs (page 22-24), showing, for example, variation against different reasonable cost thresholds. The application of the optimism bias test is also good practice. There are a number of areas, however, where the IA could be improved significantly.

Wider consumer, social and distributional impacts

The IA includes only a very short section on the wider social benefits of greater access to broadband, referring the reader to a detailed discussion in the UK Broadband Impact Study report’s associated literature review. Given the very significant potential benefits to individuals, families and communities, the IA should include much more discussion of wider consumer and social benefits. More quantification of the impact on non-business consumers would help inform the consultation.

The IA would also benefit from further discussion of the distributional impacts of the proposal. This should include not just gains to individuals and businesses in the ‘hardest to reach’ (mainly rural) or otherwise underserved areas but also any negative impacts. For example, these could be on existing broadband customers from potentially paying higher bills to pay for the USO, or potential losses to shops and other businesses based in rural areas if their customers find it easier to buy online from outside the local area. The potential for the USO to distort competition in the market for providing broadband should also be considered.

Options

The IA considers two non-regulatory options (pages 17-18): voluntary industry and state-funded. (The USD allows a USO to be wholly, or partly, publicly-funded). The IA appears to rule out state-funding on the basis that £1.7bn of public funds is already committed to TDUK and that a demand-led, industry-funded scheme is intended to complement this funding and other interventions (pages 17-18). The IA could explain further why it is appropriate for industry rather than taxpayers to fund the present measure. The IA also states that government is exploring a voluntary solution with industry in parallel with this proposal. The IA would benefit from integrating further these options into the IA, particularly the voluntary industry solution. The Department could explain how industry might agree to a voluntary solution, given the limited commercial incentives facing providers described in the IA. The IA would also benefit from reflecting on discussions that have taken place.
regarding the feasibility of setting up a Universal Service Fund in the UK, funded by an industry levy.

Rationale for option choice

Option 2 is currently preferred even though it has only the third highest NPV. This is explained as “…the purpose of the regulation is to provide a safety-net in a proportionate manner rather than necessarily to maximise benefits” and option 2 “…generates significant benefit whilst imposing proportionate costs” (page 30). It is also stated that option 2 “aims to balance the cost to the designated provider(s) and industry, quality, and feasibility…”(page 16). The IA would benefit from providing more information on the basis for the judgment that the additional costs to providers under options 3 and 4 would not be proportionate. If a policy option without the highest NPV were to be chosen, the Department would have to provide a full justification of non-quantified benefits, costs or other factors it has taken into account when making that decision.

More generally the RPC notes that, where a decision about which policy option to choose is required, it should always be made with reference to robust evidence. All factors influencing that decision should be set out clearly in a fit for purpose IA. Thus, in order to be fit for purpose, the final IA must provide a detailed explanation of the rationale behind the policy choice.

Direct/indirect classification of benefits

The RPC welcomes the Department’s overall approach to classifying benefits as direct or indirect, which appears to be in line with the RPC’s advice to the Department in January 2016. This advice was that time savings in undertaking existing business activities would be direct, whereas wider productivity benefits are more likely to be indirect, particularly where these benefits result from businesses innovating or changing their business models. The RPC also welcomes the Department’s commitment to “…seek[ing] to develop a more robust method of segregating the direct and indirect benefits over the consultation period.” (page 31). The Department will need to explain how benefits to businesses from any increase in the volume of sales have been calculated and classified, and to justify its approach, at final stage. The IA would also benefit from demonstrating the appropriateness of the ‘read across’ of the evaluation of the connection voucher scheme to the USO.

For the final stage, the Department should also consider whether standard ‘readyreckoner’ type data exists on the time savings to business from faster internet
access. This might give greater precision than the application of the connection voucher scheme survey data. The IA could also consider whether existing Ofcom, EU and UNESCO broadband impact studies might contain useful additional information.

The IA would also benefit from discussing how far the UK Broadband Impact Study 2013 remains up to date. For example, whether any routes to impact considered “too speculative, or unsupported by the available evidence” (page 7) may now be more concrete, or if others, such as productivity gains, may be less significant in the light of recent overall UK productivity performance.

**Counterfactual**

The IA at final stage must also demonstrate clearly that it has taken into account the impacts of the Ofcom decision to separate BT from OpenReach, which analysts consider is likely to have major impacts on prices, availability/coverage and quality of service.

**Appraisal period**

The IA uses a 17-year appraisal period. It might be that this relates to the assumed economic life of the broadband infrastructure being provided, although this is not stated explicitly. The NPV and benefit cost ratio are sensitive to the appraisal period used. This is because costs are incurred over only the five-year period 2019 to 2023, whereas benefits are realised over the 15-year period 2020 to 2035. Although the appraisal period used does not distort the comparison across the options, the Department will need to justify the appraisal period used to calculate NPVs and EANDCBs at the final stage. In doing so, the Department should take account of guidance for the framework under the last parliament.\(^1\) It will need to demonstrate that assumptions around the economic life of the infrastructure or equipment being provided, and the period over which costs and benefits are incurred, are realistic. In addition, the Department’s spreadsheet appears to use 19 years to calculate the EANDCB. Since no costs or benefits are incurred in the first two years, 2017-18, this would appear to be inappropriate. The Department should reconsider the use in its spreadsheet of a 19-year period at the final stage.

**Transparency of overall benefit calculations**

\(^1\) For example, paras 1.2 8 and 2.3.32 of the Better Regulation Framework Manual, July 2016 refer to the time period in which the policy is active.
The IA would benefit from providing information on how the aggregate business benefit estimates on page 29 have been calculated. Further information on the calculations involved will be necessary at the final stage to enable validation against the BIT.

Clarification of definitions and number of premises in scope

The IA would benefit from explaining how ‘superfast’ broadband and its availability are defined, for example with reference to definitions used by the Government, Ofcom and the EU. The IA should also explain how its estimates of the number of premises in scope of each option is consistent with the Ofcom Connected Nations 2016 report, which states on page 23 that between 1.4 and 3.5 million premises may fall within the broadband USO.

Explanation and use of optimism bias adjustment

The Department uses the 66 per cent upper bound for ‘non-standard civil engineering’ projects from the Treasury Green Book guidance as the starting point for its optimism bias adjustment. This seems reasonable, although the IA would benefit from explaining more clearly how this adjustment has been applied. The IA could also explain why, as indicated by the table at the bottom of page 25, the optimism bias adjustment for options 3 and 4 are slightly lower than for the other options despite these options appearing to have higher delivery risk.

Departmental assessment

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<tr>
<th>Classification</th>
<th>Qualifying regulatory provision</th>
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<tr>
<td>Equivalent annual net direct cost to business (EANDCB)</td>
<td>-£2.4 million</td>
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<tr>
<td>Business net present value</td>
<td>£37.0 million</td>
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<tr>
<td>Societal net present value</td>
<td>£2,247.8 million</td>
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RPC assessment

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<tr>
<th>Classification</th>
<th>Under framework rules for the 2015-17 parliament: qualifying regulatory provision</th>
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<tr>
<td>Small and micro business assessment</td>
<td>Sufficient</td>
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**Michael Gibbons CBE, Chairman**

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