
Designing the Broadband Universal Service Obligation
SFT Response, June 2016

Introduction

The following paper seeks to capture the response of Scottish Futures Trust ('SFT') to the Ofcom broadband universal service obligation ('USO') consultation published on 7th April 2016: Designing the Broadband Universal Service Obligation. As part of this response, we have sought to consider the basis and application of any USO and the form of the consultation. Consequently, our response does not follow the format of the headings used in the consultation document, but rather captures what we believe the underlying principles and mechanisms of the USO should be. Our key observations are that:

- the underlying principle of the USO should be that it ensures a genuinely universal right of access.
- the user experience should be considered in relation to download and upload speeds, alongside other factors such as resilience, latency and current and future contention rates.
- the USO should also not deliver a 'one time only' solution, and the performance and requirements of a USO should be benchmarked and updated on a regular basis.
- a USO could be delivered through many different technologies, fixed or wireless, depending on the underlying nature of existing and future infrastructure as well as geographic and localised considerations.
- the funding of the USO could be met in different ways as set out below, however, our initial viewpoint is that the majority of cost should be distributed across the widest baseline possible.
- as part of assessing the basis of any broadband USO, Ofcom should consider how other regulated industries such as electricity and postal services apply universal service obligations and what approaches and / or lessons can be learnt from the application in these sectors.

The Digital Role of SFT

SFT is working with Scottish Government ('SG') to develop an implementation strategy to deliver Scotland's world class digital vision as described in SG's Scotland's Digital Future - Infrastructure Action Plan¹. For this vision to be delivered, it is imperative that both consumers and enterprises in Scotland have access to digital services and mobile connectivity to enable connection and content. This requires both infrastructure and devices to achieve:

- Seamless delivery across fixed and wireless platforms;
- A quality of service and experience commensurate with other leading and modern digital economies; and
- Investment into Scotland's digital infrastructure that will guarantee the country's future competitiveness, as well as its ability to provide enhanced public services and opportunity to its citizens.

A key aspect of this work is to assess the wide range of potential interventions that could be considered to enhance the opportunity for investment in digital infrastructure across Scotland. This includes UK and Scottish Government policy and regulation, as well as establishing the drivers that will stimulate efficient and effective private and public sector investment.

¹ <http://www.gov.scot/Resource/0038/00386525.pdf>

In Scotland the demand for data has increased significantly in recent years and with it the demand for seamless broadband and mobile connectivity. Anecdotal evidence, together with Ofcom and other studies, indicates however that the customer quality of experience is a mixed one. For some, there has been significant improvement in terms of superfast broadband and 4G coverage, alongside growth in the number and types of connected devices; it is this experience that needs to be replicated across the country not just in largely urban and economic centres. For many however, regardless of geography, the experience is still one of unreliable, slow broadband and mobile connectivity services; this experience is replicated in both the consumer and business connectivity markets. There is therefore a strong case to establish how adequate investment and innovation can be delivered into those, primarily regional markets. Convergence has also changed how people access services, and indeed OTT content has grown exponentially over the last few years for some, but far from for all.

As we highlighted in our recent response to Ofcom's Strategic Review of Digital Communications², it is recognised that Ofcom has applied certain remedies, however based upon consumer outcomes we suggest that there is significant scope for both Ofcom and the wider public sector to be increasingly proactive as regards driving market change and performance. We believe such approaches should be part of an overarching UK regime, but should also address the needs and requirements of regional businesses and consumers.

The ability to deliver an efficient, competitive telecommunications market for all will deliver significant benefit. To assess these potential benefits, SFT commissioned Deloitte³ to consider the impact of Scotland achieving its world class digital vision (the "SFT Impact Report"). The findings of the report captured the potential of such a vision in fiscal, economic and social terms. The report identified that the potential benefits arising from achieving such a vision could deliver an estimated annual GDP uplift of £13bn in Scotland by 2030. The report also highlighted the potential to improve a number of social dimensions such as access to public services (including healthcare and education) greater social cohesion and inclusion and a reduced cost of living, amongst others.

As highlighted, the 'prize' of enhanced digital communications offers significant benefit, and indeed has the potential to significantly improve competitiveness, productivity and innovation across all user groups; it is within this context that we have considered USO design and requirements.

The USO: Key issues to consider

Fundamentals of a USO

We believe that the underlying principle of the USO should be that it ensures a genuinely universal right of access to a reliable, affordable and 'usable' broadband services, underpinned by a good quality user experience. This user experience should not necessarily be focused on a minimum speed on a set day at a set time; whilst speeds are important to users, this should be considered in the widest sense of download and upload speeds, alongside other factors such as resilience, latency and current and future contention rates, amongst others. Both the "reasonableness" test and cost cap of delivery will likely have a disproportionately significant impact in large areas of Scotland as well as other parts of the UK, and would result in a higher threshold in those areas where the implementation of a

² http://stakeholders.ofcom.org.uk/binaries/consultations/dcr_discussion/responses/Scottish_Futures_Trust.pdf

³ http://www.scottishfuturestrust.org.uk/files/publications/Impact_of_digitalisation_in_Scotland.pdf

genuine USO is most needed as there are likely to be more challenging terrains than many other parts of the UK. These factors need to be given full consideration in the design of a USO in the UK.

A USO for the long term

The USO should also not deliver a 'one time only' solution which is then left to degrade in its applicability for users over time. As the SFT Impact Report highlighted, the potential impact of digital across different regions and situations in Scotland could be fundamental to driving change and success. By definition the basis of the USO should be as an enabler to achieving such outcomes for all over a prolonged period of time.

To achieve these outcomes and delivery of the USO, there is a need for the right infrastructure to be in place: this includes providing new infrastructure, where needed, but it also means utilising and ensuring the ongoing upgrading / future proofing of existing infrastructure to maintain its fullest potential. In remote and rural Scotland, infrastructure competition would not be an effective use of funding, nor cost effective from an investment point of view. As discussed below, the UK's regulatory approach also needs to reflect these local conditions and the development of local remedies to support digital communications investment and availability.

The USO therefore needs to be evolutionary, whether through the workings of the USO itself or the wider regulatory environment. Either approach could enshrine a requirement that the performance of any infrastructure cannot degrade as additional users are added. Effectively, a minimum level of performance would be set which could then evolve in the future. This captures the consultation sentiment and wider UK Government views of a potential 10Mb/s USO as an initial starting point. Whilst this level may be considered appropriate based upon current usage, as we go forward however this benchmark will quickly become obsolete. On this basis, thought should be given to mechanisms which look to review the minimum requirements on a regular ongoing basis: this could be based upon a national average, a defined urban reference rate or an independent review of needs at set junctures of time. Likewise, as mentioned earlier, the USO should not just be about a minimum download speed, but as much about other factors such as: upload, resilience, contention, and so on to reflect a wider "user experience" measure.

A technology neutral USO

A USO could be delivered through many different technologies, fixed or wireless, depending on the underlying nature of existing and future infrastructure as well as geographic considerations. However, any alternative approach(es) will still have a need to be underpinned by the fixed elements of any network, ensuring adequate backhaul and supporting infrastructure is in place to deliver a high quality of experience for all. Such an approach will likely provide spill-over effects for all, improving wider broadband and mobile coverage, underpinned by a future-proofed core network. This will ultimately enhance access and services for citizens, businesses and visitors alike. That said, the above would create a need for wireless rural and social tariffs to ensure products and services are affordable and available. It may be that such tariffs can be enshrined within MNO coverage obligations if the USO can be provided by wireless means.

Establishing the infrastructure needs of a USO

In terms of the need for a USO, rather than trying to flag cost parameters in advance of the design of a USO, we believe that Ofcom should consider what the likely need for a USO might be in a given geography. There is currently significant private and public sector investment in telecommunications infrastructure and capability such as the significant investments by fixed providers such as Virgin, CityFibre holdings and BT, the BDUK/Digital Scotland Superfast Broadband programme, the

Emergency Services Mobile Communications Project, MNO coverage obligation investments, further programmes and projects being developed by Scottish Government and SFT. Elements such as these need to be factored in to any assessment of need; we believe OFCOM should be ideally placed to do this, and should be developing the means to hold information on future intentions or investment from network providers. This could be used to inform any assessment; if Ofcom does not consider that it has the powers to secure such information, it should work with Government to consider how these powers could be developed.

In terms of determining infrastructure need, OFCOM should look to recommend how implementation could build upon recent major part-public funded programmes such as the BDUK framework and the ESMCP, and to determine how these could be most effectively utilised to deliver the USO and other interventions and /or investment. When linked to thoughts around how to drive efficiencies and pooling of demand – this may provide choice and greater flexibility, and negate a need to duplicate infrastructure in areas where this may not be cost effective or where competition does not, and is unlikely to exist. The viability of this approach will need to be carefully reflected in terms of how it is to be funded and how access to that infrastructure for providers can be regulated.

A further requirement of any future USO related infrastructure would be mapping (as an overall minimum mapping requirement by Ofcom) and regulated access to the USO funded infrastructure. Consideration would need to be given as to how such approaches could be delivered and regulated, and indeed how they would comply with any State Aid or procurement requirements. Likewise, Ofcom needs to consider the above issues from a competition perspective, although, as highlighted above, competition based upon infrastructure provision has largely failed to materialise across much of Scotland. The regulatory aspects, would therefore be more about locational approaches and remedies and how competition and efficient pricing can be driven within the overall UK regulatory framework.

Funding of a USO

The funding of the USO could be met in different ways as set out below, however, our initial viewpoint is that the majority of cost should be distributed across the widest baseline possible. In the event that a specific end user bears the burden of cost, we believe there is a risk that there will be limited impact on extending coverage and performance through the introduction of a USO. Based on this principle, a USO could be funded via a range of approaches including:

- General taxation, which given the importance of the UK's digital network to future productivity and competitiveness, such a case could be made for funding;
- At an industry level, with a related industry levy / regulatory obligation to deliver; and
- A Consumer levy, which would see the application of a small sum on all of those purchasing digital services to meet the cost i.e. all those purchasing broadband access in the UK would see a universal levy applied via an incremental increase in the wholesale cost of broadband - thus not distorting competition and applying a levy to all in the UK.

Given the potential nature and location of any USO related additional infrastructure, it is probable that this infrastructure will be utilised by a wide range of users (even if on a transient basis) and enable other activity such as access to public services, business transactions or tourism. There is therefore a greater reach and benefit of the USO beyond the base in-situ population. Thought should therefore be given as to how to capture this user market in relation to any funding mechanism.

In order to establish the indicative costs and quantum of funding required to deliver any infrastructure requirements resulting from the introduction of a USO, as indicated above, we believe Ofcom should develop a comprehensive mapping of the infrastructure baseline to assist in this exercise.

Performance and review of a USO

It may be that any of the above approaches would be time limited – with an ongoing regulatory requirement post initial introduction of the USO used to fund ongoing performance and evolution. This would ensure a continued quality of experience for USO recipients. Regardless, of the above approaches, SFT believes that it is acceptable for the cost of the USO to be spread rather than targeted specifically at those utilising the approach.

In terms of review, the basis and performance of any USO should be frequently reviewed, as much to understand demand and performance and ensure the USO's mechanics are effective, as well as assessing outputs against forecasts and expectations. This will allow lessons to be learnt and acted upon. The basis of any review can be lengthened and / or amended as time passes to make sure the USO remains relevant, if needed.

Looking to other regulatory examples

Finally, as part of assessing the basis of any broadband USO, Ofcom should consider how other regulated industries such as electricity and postal services apply universal service obligations and what approaches and / or lessons can be learnt from the application in these sectors. Whilst they will not provide a 'one-size' fits all approach, different elements could translate to digital communications and the provision of universal broadband services. For instance, postal services in the UK are deemed to be critical, particularly for rural areas. This has led to a universal pricing regime designed to ensure a level playing field, regardless of location. Arguably in the future, broadband will become more important than postal services, with it likely to be a direct replacement for some types of one to one communication, whilst providing additional functionality in terms of access to public services, education and commerce.

Next Steps

The above summarises SFT's response to the Ofcom consultation: Designing the Broadband Universal Service Obligation. SFT would welcome the opportunity to discuss any aspect of this response and work with Ofcom more generally in this area going forward.