



**CityFibre's response to Ofcom's request
for *“interest in serving as Universal
Service Provider for broadband”*.**

CityFibre

Contents

Executive Summary.....	2
Introduction	3
Full-fibre rollout.....	3
Issues	4
Technical Specification	4
Efficiency Requirements	5
Funding	5
Altnets' Pre-Existing Full-Fibre Infrastructure.....	6
Primacy of FF endeavours in USO areas.....	7
Conclusion	8
References	9
Table of Statutes	9
EU.....	9
UK.....	9
Reports.....	9
News Articles.....	10

Executive Summary

We at CityFibre welcome the opportunity to respond to Ofcom's request for expressions of interest in serving as a Universal Service Provider (USP).¹ CityFibre welcomes the opportunity to discuss the Universal Service Obligation (USO) and the eventual role of the USP, acknowledging the importance of the USO in the future of the UK's digital infrastructure and its place in a digital world. CityFibre shares Government and Ofcom's concern that certain parts of the country are being left behind by sub-standard digital infrastructure and supports the intent to adapt and extend the USO mechanism. However, CityFibre has some concerns with the USO in its current form, which it wishes to raise here with Ofcom.

CityFibre, as a wholesale provider of full-fibre (FF) products and services, has a range of FF products tailored to different types of consumers and their respective needs. The product portfolio ranges from: dark fibre and metro services for businesses, CP's and public organisations to (recently)² active FTTP lines for business and residential consumers. Due to CityFibre's business model, and the commercial viability of some areas, the majority of CityFibre's existing network infrastructure is concentrated into urban-metro areas. However, CityFibre have recently been able to expand their coverage to more rural communities using public subsidies like the Government's LFFN stimulus programme. On the 31st May this year, CityFibre were awarded the first contract under the LFFN programme to provide gigabit connectivity to nine communities in West Sussex.³

Whilst CityFibre acknowledges the broadband-inclusive expansion of the USO is a step-forward towards greater digital connectivity, CityFibre also believes there is a conflict between the current national plans for full-fibre rollout (FFR) and the current structure of the USO, which in our view, will inevitably slow down FFR. CityFibre believes there are issues which pertain to the specifics of the USO/USP proposals and their method of implementation. CityFibre suggests that these issues should be addressed by Ofcom considering these issues holistically. Specifically, Ofcom should have regard to the economic and logistical advantages of using alternative networks' (altnets) pre-existing full-fibre infrastructure (PEFFI) as the means to deliver the broadband USO. In Ofcom's analysis of the USP's deployment strategy it should encourage deployments in USO areas which use FF services, deployed either through private investment or public subsidy. Recognising that different public interventions for FF and the broadband USO should be operating in the same areas on similar timescales, greater care is needed to ensure that these interventions sum to the best possible outcome for consumers and the lowest aggregate economic cost.

This document will begin below by re-iterating Government and Ofcom's current position on FFR and in turn analyse the USO in its current form, with respect to achieving this and other relevant digital goals, providing recommendations at the end.

¹Ofcom. (2018) "Implementing the Broadband Universal Service Obligation – Request for expressions of interest in serving as Universal Service Provider". See: https://www.ofcom.org.uk/data/assets/pdf_file/0013/115042/implementing-broadband-uso.pdf

² In a joint venture with Vodafone, CityFibre has agreed to facilitate the provision of full-fibre services to 1 million premises by 2021 and a further optional 5 million by 2025. See: <https://www.cityfibre.com/news/milton-keynes-ftth-announcement/>

³See: <https://www.londonstockexchange.com/exchange/news/market-news/market-news-detail/CITY/13660688.html>

Introduction

Full-fibre rollout

At the time of writing, DCMS has recently released the Future Telecoms Infrastructure Review (FTIR)⁴ and Ofcom has released its corresponding statement on “Regulatory Certainty to Support Investment in Full-Fibre Broadband” (IFFB)⁵ which both go to great lengths to highlight the importance of full-fibre broadband (FFB) for the future of the UK’s digital infrastructure and both have set themselves goals and targets to realise this intent.

According to the FTIR, Government’s intent for FF coverage is to have 15 million premises covered by 2025 and for nationwide coverage to be achieved by 2033. The FTIR highlights the best way to do this is to incentivise infrastructure competition via an easing of access to passive telecoms infrastructure (unrestricted duct and pole access), long-term regulatory certainty, and the gradual removal of the existing legacy copper networks.⁶

In relation to rural coverage the FTIR outlines an “outside-in” approach to deployment. Although the details are to follow, we assume this will mean a focus on public subsidy of FF deployments in rural areas. No timescales are outlined for this in the FTIR but self-evidently to complete nationwide coverage of FF by 2033 would require that such an intervention programme is commenced as soon as possible. Hence, there is an awkward interplay between Ofcom’s focus on short-term measures to promote broadband USO and the prospect of a FF intervention in rural areas which also commences imminently.

In Ofcom’s IFFB statement the tone was similar to the FTIR. It echoes the need for FFB across the UK and realises the ambition of the Government to have nationwide coverage by 2033. It re-iterates the general mechanisms for incentivising investment, further elaborating on the need for unrestricted duct and pole access (DPA), long-term regulatory certainty and the transition from older copper networks to fibre.⁷

Both statements make a brief note of the existence of the USO framework, stating it may have a “complementary” role, but both however fail to specify exactly how this complementarity will be achieved and the mechanistical aspects of its role in the context of FFR.⁸ It is CityFibre’s opinion in order to achieve national FF coverage, the USO must not conflict in any way with this intent and where it does so it should be subject to reasonable change, amendments and/or clarification that recognises the primacy of the FF goals in both Government and Ofcom strategy.

CityFibre is concerned there has been an excessive focus on the “safety net ambitions”⁹ of the USO, which has meant the current framework detracts from Government and Ofcom’s primary ambitions for FFR. This stopgap means of dealing with the UK’s issues with broadband coverage and quality are a concern, as whilst acknowledging in and of itself the USO is not a broadband rollout programme, it encourages rollout of the most minimum of standards. It is our view that the USO in its current form and present ambiguity hampers the realisation of this general intent and at some points run counter to the specific mechanisms (mentioned above) for incentivising investment.

⁴ Department for Digital, Culture, Media and Sport. (2018) “Future Telecoms Infrastructure Review”. 23rd July 2018. Find: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/727889/Future_Telecoms_Infrastructure_Review.pdf

⁵ Ofcom. (2018) “Regulatory certainty to support investment in full-fibre broadband”. 24th July 2018. Find: https://www.ofcom.org.uk/data/assets/pdf_file/0025/116539/investment-full-fibre-broadband.pdf

⁶ *Supra note 4.*

Duct and Pole access: *Page 6; Section 2.5.1, Paragraphs 67-68, Page 32; Section 4.2.3, Paragraph 242, Page 71.*

Regulatory Certainty: *Section 2.6.1, Paragraphs 93-94, Pages 37-38.*

Outside-in Approach: *Page 8; Section 2.3.3, Paragraphs 44(4), Page 28; Section 2.7.2, Paragraphs 129-135, Pages 44-45.*

Legacy Network Removal: *Page 8; Section 2.8, Page’s 46-47.*

⁷ *Supra note 5.*

Duct and Pole access: *Paragraph 1.16, Page 7; Paragraph 3.16, Page 19; Paragraph 4.20, Page 24.*

Regulatory Certainty: *Paragraph 1.34, Page 10; Paragraphs 2.19-2.20 Page 17; Paragraph 2.24 Page 17.*

Legacy Network Removal: *Paragraph 5.3, Page 29; Page 30.*

⁸ *Supra note 4.* Paragraph 133, Page 45; Page 75.

⁹ *Supra note 1.* Paragraph 1.3 Page 3; Paragraph 2.4, Page 6

Issues

Technical Specification

CityFibre are concerned with the real-world utility and copper-centricity of the technical specification. This stems from our concern that the specification, taking the provisions individually and holistically, is unsatisfactory when additionally taken with the current *needs* and *uses* of general households.¹⁰ Furthermore there is reasonable concern it will, if not already, certainly be outdated by the set implementation date (2020).¹¹ This specification in its current form, raises concerns there is a conflict of interest in plans for FFB, and the standard imposed by the USO. FF services can currently deliver speeds up to 1Gbps however, the technical specification under the current USO framework implies the network would be best facilitated and provided by the pre-existing, aged, copper network.

Other EU countries with similar USO obligations, whilst having lower thresholds for their respective technical specifications, have a significant number of caveats which are worth mentioning. The general standard of their residential broadband services is much higher than our own if we observe their average broadband speeds and FF coverage.¹² This may be attributed due to the ease with which they can roll out FFB, and more importantly the primacy of FF objectives to their respective national digital ambitions.

CityFibre also wishes to draw particular significance to the *digital exclusion areas* provision within the impending European Electronic Communications Code¹³ (EECC), due for implementation in 2020, and the convergence of these areas with possible USO areas. The digital exclusion area provision within the EECC requires said areas to be covered by *very high capacity networks* providing a speed of at least 100Mbps, by a volunteering undertaking. Notwithstanding our issue with this speed in itself, due to the convergence of these areas, this higher threshold for minimum speed should provide further emphasis to the fact the technical specification in its current form is and will not be up to the standard required for national domestic use.

The lack of specifics with regards to the prescribed technology, in tandem with the apparent focus on cost-saving approaches (explored below), does tend to suggest that fibre to the cabinet (FTTC) will be the primary solution for rural areas. CityFibre would like to draw Ofcom's attention to the recent findings in the FTIR (annex B) which implied the use of technically neutral language when prescribing connection requirements has meant FFR efforts were hampered.¹⁴

In addition, CityFibre would like to urge Ofcom to reconsider the significance of wireless networks serving the more hard-to-reach rural areas covered within the remit of the USO. The FTIR acknowledges the significance of 5G technology in serving these areas when applying its outside-in approach.¹⁵ There are a small number of rural deployment scenarios where a wireless solution will be the only practicable means of delivering adequate broadband services. Essentially, the deployment hierarchy ought to be: 1) FF where practicable; 2) High-specification wireless where FF is impractical; 3) FTTC only where neither of the other options are practicable. This is consistent with the general approach set out in the FTIR and would make the

¹⁰ Lord Stevenson of Balmacara. HC Deb 19 July 2018, Volume 792. Find: <https://hansard.parliament.uk/lords/2018-07-19/debates/DD1D536B-3673-4B4D-8B8C-ABBDC98CCC5D/BroadbandSpeed>

See also: House of Commons Library briefing, Superfast broadband coverage in the UK, 2017. Find:

<http://researchbriefings.files.parliament.uk/documents/SN06643/SN06643.pdf>

See also: Borders Community Broadband (DCS0028), find:

<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/scottish-affairs-committee/digital-connectivity-in-scotland/written/77288.html>

Cordelia Galley (DCS0075). Find: <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/scottish-affairs-committee/digital-connectivity-in-scotland/written/77736.html>

¹¹ *Digital Connectivity in Scotland*. HC Scottish Affairs Committee, Volume 654. Page 19. Paragraph 41.

¹² *Supra note 4*. Page 15.

See also: Wakefield, Jane. (2018) 'Broadband speeds in UK slip down global league table'. BBC News.

<https://www.bbc.co.uk/news/technology-44778017>

See also: <https://www.cable.co.uk/broadband/research/worldwide-broadband-speed-league-2018/>

¹³ Proposal for a Directive of the European Parliament and of the Council establishing the European Electronic Communications Code (Recast). Article 22. See latest draft: <http://data.consilium.europa.eu/doc/document/ST-10692-2018-INIT/en/pdf>

¹⁴ *Supra note 4*. Annex B. "Telecommunications Infrastructure International Comparison. A Report For the Department for Digital, Culture, Media and Sports." 30th March 2018. Page 62.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/727891/FTIR_Annex_B-NERA_Telecommunications_Infrastructure_International_Comparison.pdf - The case of Germany and VDSL.

¹⁵ *Supra note 4*. Section 2.7.2, Page's 44-46.

USO intervention less likely to lead to deployment of obsolescent technology that cuts across the FF and 5G objectives of both the Government and Ofcom.

With reference once more to the EECC, the draft document appears to encourage the use of *very high capacity networks* in its provisions on co-investment¹⁶ and as highlighted before, in digital exclusion areas¹⁷. This should once more serve as a form of impetus for Ofcom to consider the significance of prescribing particular forms of technology in areas where these endeavours are likely to converge and as such are likely to lose out on from an ambiguous prescription.

Efficiency Requirements

CityFibre realises Ofcom would like for the USO to be delivered in the most economically and logistically efficient manner. Ofcom has requested the USP, upon the request of a valid tender for connection, deliver the said connection within a one-year period.

CityFibre acknowledges the rationale of such an approach is to ensure the disparity in coverage and broadband quality is not prolonged, however it is concerned in the pursuit of time and economically-driven interests the efficiency guidelines may become a bottleneck to FFR, subsequently encouraging the use of copper-based and -inclusive technology (FTTC). The FTIR has also mentioned the significance of an outside-in approach when incentivising FFB investment in more rural areas, articulating public funding will be made available so as not to leave these areas behind. CityFibre encourages Ofcom to consider this mechanism, which will involve public funding in areas also possibly covered by the USO.

In this context, the one year forward assessment is particularly troubling. It is quite possible for example that this would mean publicly subsidised FF deployments already in train could not be taken into account because the actual deployment to a customer otherwise eligible for the broadband USO could not be taken into account. This seems perverse.

CityFibre urges Ofcom to consider interpreting these efficiency requirements and taking them holistically with the main national aim of FFB in mind, this can include providing an extended time frame for certain points within the USP design, for a deployment involving FF.

Funding

Whilst Ofcom have stated, within their preliminary call for USPs, that the mechanics of an industry fund will be discussed at a later date, it is problematic for a wholesale fibre provider like CityFibre to contribute to a fund which (as described above), on the face of it, can be exploited as a copper prolongation and/or extension scheme. As it is currently understood, it appears Ofcom would impose a flat rate charge to all consumers of broadband to facilitate this endeavour. Needless to say, the consumer would arguably be aggrieved by such a choice, in essence having the burden of facilitating the prolonged existence of an outdated copper network. CityFibre urges Ofcom to consider the issue that the industry fund should not be used to extend the shelf-life of an expired network.

Ofcom appears to acknowledge the possible cross-over of Government subsidy and rollout schemes which may indeed cover some of the areas in the USO. It also appears to acknowledge that the designated USP would be required to know if any of these schemes are available to a *valid* requesting end-user. However, it is CityFibre's view that more work needs to be done in ensuring the FFB program obtains primacy over any USO endeavour, noting in particular the timing problem referred to above.

¹⁶ *Supra* note 14 – Article 74 and 76bis

¹⁷ *Supra* note 14.

Altnets' Pre-Existing Full-Fibre Infrastructure

As noted, CityFibre is a wholesale provider of FF products and services, with networks in both urban and (now) rural areas. It is CityFibre's view many of the conflicts stated above between the current USO framework and the national plan for FFB may be overcome with greater attention being served to the use of an altnets' pre-existing FF infrastructure.

The mechanism which CityFibre proposes would require the USP show Ofcom they have reasonably considered the use of an altnets PEEFI and if in line with the USO's financial viability requirement¹⁸, have requested its use. Altnets, like CityFibre, may have pre-existing core and spine networks, or may be deploying them in areas which the USP may have within its remit. The USP should be encouraged to seek commercial agreements with the altnet, in order to use and/or itself extend these networks, for local access use. The use of this pre-existing infrastructure may provide synergies in being the most economically and logistically efficient solution to serving these said areas and ensure these areas do not lose out on a FF service where it was reasonably possible to serve them with such.

CityFibre proposes the month which the USP has to respond to a valid requesting customer¹⁹ be expanded, where the USP can provide reasonable evidence they are in negotiations with the altnet for the use of their infrastructure in serving these areas, to a maximum of 40 working days. Whilst CityFibre acknowledges the concern Ofcom may have on the delivery of the requested connection within the year from request, it is CityFibre's view this mechanism will in fact speed up the delivery process by removing the bulk of construction-related time constraints. We believe the timescales, both for meeting the request and the one-year forward view stem not from the relevant EU law but from its implementation into UK law. If this is indeed the case then it is open to Ofcom to argue for changes to the legislation (or to adopt the most permissive interpretation possible) given that the risk is that the USO intervention undermines a more recent statement of Government policy in respect of national FFR.

CityFibre in continuing to acknowledge the rationale of such an approach wishes for Ofcom to consider that the most efficient solution for the designated USP may be in certain instances to procure network in areas where other fibre CP's and/or fibre wholesalers have a presence or very close point of presence. CityFibre would like to encourage Ofcom to consider this in its analysis, as doing so serves the dual-purpose of (a) possibly being the most efficient solution in certain areas or regions and (b) due to the network build and technology used by some CP's, like ours, allows the synergistic realisation of FFR and the USO.

However, CityFibre would also like to stress when considering this approach Ofcom consider the balance between seeking the most effective solution to implementing the USO whilst ensuring the grander scheme of investment into infrastructure is not hampered and disincentivised by an over-eagerness to synergise the USO, FF and other logistical provisions. Therefore, CityFibre reaffirms that the request the USP makes to use the altnets infrastructure would not render it mandatory for the altnet to provide under the current USO framework and stresses in protecting future infrastructure investment (and subsequent competition levels) that the framework continues with this non-mandatory position for altnets.

Furthermore, with continued relevance in the future needs of end-users, the benefit of prescribing this mechanism of altnets PEEFI or at least focusing on mechanism which give primacy to FF deployment, allows the USO to future proof, anticipating consumers' needs and prevents extra spend on revisiting these locations for the inevitable upgrade the infrastructure would require.

This solution would ensure the primacy of FF over the USO, and in turn avoid situations where the industry fund is misallocated through double-jeopardy investment and the slowing down of Government and Ofcom's plans for FF coverage by 2033.

¹⁸ accounting for the £3,400 cost per premises. The Electronic Communications (Universal Service) (Broadband) Order 2018 No. 445. Schedule 1. Paragraph 2 (d)(i). See: <http://www.legislation.gov.uk/ukxi/2018/445/schedule/1/paragraph/2/made>

¹⁹ *Supra note 1*. Paragraph 3.18. Page 13

Primacy of FF endeavours in USO areas

Ofcom appears to acknowledge the possible cross-over of Government subsidy and rollout schemes which may indeed cover some of the areas in the USO. It also appears to acknowledge that the designated USP would be required to know if any of these schemes are available to a *valid* requesting end-user. However, it is CityFibre's view that more work needs to be done in ensuring the FFB program obtains primacy over any USO endeavour.

The cross-over may include national broadband aid programmes, as they move into place. The broadband state aid programmes in Scotland, Northern Ireland and Wales will cover a considerable chunk of the USO area. The FTIR makes note a further subsidy of £3 billion to £5 billion will be needed and made available to support FF in the areas considered commercially unviable.²⁰ Many of these larger programmes come with delivery timetables significantly beyond 12 months.²¹

This becomes an issue, where an end-user in exercising their rights under the USO, create a negative externality whereby their area either no longer qualifies for the subsidy and/or make it commercially unviable for a communication provider (CP) awarded with the subsidy to invest in said area. This problem is most prominent where the USP for a given geography is not the CP awarded with the state aid contract across the said location.

Furthermore, many programmes and contracts which are to operate in rural areas face builds of longer than twelve months, which would in effect make these areas subject to the issue presented in the paragraph above and/or could mean a development underway may be subject to overbuild, most likely by a copper-based service. The build time for these areas, is often due to operational issues faced when building a core network from scratch, a problem particularly prominent in rural areas. This is often due to fibre delivery in rural areas requiring substantial works activity with an often-finite labour supply, absence of viable backhaul and a capped delivery speed due to highways access restriction.

CityFibre would like to once more draw Ofcom to its specific success with the LFFN scheme, highlighting the benefit of allowing these schemes to flourish in areas possibly covered by the USO framework. In addition, CityFibre would also like for Ofcom to consider the outside-in approach, accounting for rural areas in pursuit of FFR and the convergence of these geographical areas with the USO. CityFibre encourages Ofcom to consider the implications of the cross-over, ensuring no end-user loses out on FF, in place of a quick USO fix.

It is CityFibre's view further regulatory forbearance should be provided where these crossovers arise. CityFibre's concern is in an eagerness to implement the USO, these areas may lose out on the more long-term and higher quality provision of FF services. It is CityFibre's view where these conflicts arise, the USO mechanism must include a mechanism so as to allow the primacy of these projects to take place and/or the use of the infrastructure which has won the state aid contract, using the mechanism for altnets PEFFI defined above.

²⁰ *Supra* note 4. Paragraph 135, Page 45.

²¹ <https://www.gov.scot/publications/2017/12/2810/1>

Conclusion

In summary, CityFibre's concern over the current USO framework include issues with the technical, logistic and financing mechanisms which it believes will impede the roll-out of FFB. To best address these issues CityFibre have recommended two mechanisms which it believes will work effectively, both independently and in tandem with one another, to overcome the concerns raised. CityFibre, to re-iterate, strongly believe the use of an altnets PEFFI will help overcome issues with the technical specification and still either exist within the efficiency and funding parameters of the current USO framework and/or can do so with no or little detailed change to the respective requirements in the framework.

It also believes having greater regard for the primacy of state aid projects, will allow converging areas to benefit from a higher quality connection and ensure the awarded entity does not lose from a commercially viable investment either from fear of the ship sailing and/or fear of overbuild where the project is likely to go over twelve months.

References

Table of Statutes

EU

- Proposal for a Directive of the European Parliament and of the Council establishing the European Electronic Communications Code See latest draft: <http://data.consilium.europa.eu/doc/document/ST-10692-2018-INIT/en/pdf>

UK

- The Electronic Communications (Universal Service) (Broadband) Order 2018 No. 445. Schedule 1. Paragraph 2 (d)(i). See: <http://www.legislation.gov.uk/uksi/2018/445/schedule/1/paragraph/2/made>

Reports

- Borders Community Broadband (DCS0028), find: <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/scottish-affairs-committee/digital-connectivity-in-scotland/written/77288.html>
- Cordelia Galley (DCS0075). Find: <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/scottish-affairs-committee/digital-connectivity-in-scotland/written/77736.html>
- Department for Digital, Culture, Media and Sport. (2018) “Future Telecoms Infrastructure Review”. 23rd July 2018. Find: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/727889/Future_Telecoms_Infrastructure_Review.pdf
- *Digital Connectivity in Scotland*. HC Scottish Affairs Committee, Volume 654
- House of Commons Library briefing, Superfast broadband coverage in the UK, 2017. Find: <http://researchbriefings.files.parliament.uk/documents/SN06643/SN06643.pdf>
- Lord Stevenson of Balmacara. HC Deb 19 July 2018, Volume 792. Find: <https://hansard.parliament.uk/lords/2018-07-19/debates/DD1D536B-3673-4B4D-8B8C-ABBDC98CCC5D/BroadbandSpeed>
- Ofcom. (2018) “Implementing the Broadband Universal Service Obligation – Request for expressions of interest in serving as Universal Service Provider”. See: https://www.ofcom.org.uk/_data/assets/pdf_file/0013/115042/implementing-broadband-uso.pdf
- Ofcom. (2018) “Regulatory certainty to support investment in full-fibre broadband”. 24th July 2018. Find: https://www.ofcom.org.uk/_data/assets/pdf_file/0025/116539/investment-full-fibre-broadband.pdf
- Annex B. “Telecommunications Infrastructure International Comparison. A Report For the Department for Digital, Culture, Media and Sports.” 30th March 2018. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/727891/FTIR_Annex_B- NERA_Telecommunications_Infrastructure_International_Comparison.pdf

News Articles

- <https://www.gov.scot/publications/2017/12/2810/1>
- <https://www.cable.co.uk/broadband/research/worldwide-broadband-speed-league-2018/>
- <https://www.cityfibre.com/news/milton-keynes-ftth-announcement/>
- <https://www.londonstockexchange.com/exchange/news/market-news/market-news-detail/CITY/13660688.html>
- Wakefield, Jane. (2018) *'Broadband speeds in UK slip down global league table'*. BBC News. <https://www.bbc.co.uk/news/technology-44778017>