

ICBAN response to DCMS Broadband USO Consultation, 14 April 2016

Thank you for the opportunity to respond to the Broadband USO consultation. Irish Central Border Area Network Ltd. (ICBAN) has been charged by its three local authority members in Northern Ireland to begin seeking answers and solutions to the gaps in service left by an over reliance on a fibre to the cabinet solution (FTTC) deployed and subsidised in Northern Ireland. We are a local authority development organisation which works in the cross-border areas of Northern Ireland and Ireland. The three local authorities member Councils from Northern Ireland area: Armagh City, Banbridge and Craigavon Borough Council; Fermanagh and Omagh District Council; and Mid-Ulster District Council, which are located on the border with the Republic of Ireland.

Located in the border Region of Northern Ireland / Ireland the area has a very low population density, so a FTTC without the effective ability to order extensions to the service is limiting.

Summary

ICBAN has outlined a more comprehensive alternative, building upon the good work that has occurred in the last four years by BDUK while working to extract the most from the very large remaining funds available and the potential to extend further what is now a heavily subsidised data transport infrastructure owned by BT. There has been greater transparency achieved on costs and related issues, and it would be vital that this must now be built upon.

The proposal outlines that BDUK states there are a 1m lines that need to be covered by USO. A full cost reconciliation of the BDUK/LA programme would reveal sufficient funding to support the wide scale use of FTTdp (Fibre to the distribution point or manifold) to most of these locations, supporting as few as 5 premises per location. This seems too big and obvious a factor to fail to reference in this proposal.

Q1: Do you have any concerns about the approach that has been set out here?

1.1 The stated approach is politically pragmatic, but falls short in outlining what seems to be possible.

1.2 The political aspiration and the sentiment of 10 Mbps 'speed' at the edge of the network is understood. It is a reasonable way for those without technical knowledge to consider that 2Mbps may not be enough and thus more is needed. However the aspiration of 10 Mbps is not nationally ambitious enough and this should not be lost from the consideration. However, converting a sentiment into a piece of legislation is highly problematic.

1.3 The USO for the telephone service was defined well after the engineers had finished defining and building a network to support a 'telephone' service. Legislators took something that was relatively stable and wrote law around an engineering specification and a set of features that could be described in detail.

1.4 Using the telephone network to deliver access to the internet is not governed by any regulation or definitions, a contributing factor to a nomenclature unrelated to how the service actually works. The underlying access component used for the telephone service is a Metal Path Facility, which is defined in a manner that supports a telephone service and which does not guarantee the metal path will support the higher frequencies used by Broadband. These are distance (signal attenuation) and quality issues.

1.5 Access to the internet, using the best effort principles of IP networking and a mix of mediums to support a flow of data in the form of encoded zeros and ones (bits) continues to be a work in progress. It can be shown that the capacity issue for connectivity is but one of the challenges facing internet based services as we understand them today. The security of transactions, naming and addressing functions, scalability, even the software languages used in some key network elements, are in significant flux and will

continue to be so. Yet none of these developments which will have a profound impact on the user experience, can be considered as part of the intended USO. The latter cannot be contained in a USO because the internet is a networks of networks and this includes the users own home network.

1.6 Thus the notion of creating a USO for the access component of a national data transport service, that we call 'Broadband', is highly problematic. The term 'Broadband' refers to a frequency range allocated in a copper access network and used to establish an electromagnetic path upon which the data we wish to have transferred is encoded. It would be easy to state the USO incorrectly in the form of some 'nominal' access speed, when what is in fact required is the right to order an access product which is capable of using all the potential connectivity made possible, even if we are not ready to exploit it all.

1.7 Even the term 'speed' is problematic. The speed of light is constant so the USO when defined cannot use 'speed', it will need to describe 'throughput' and avoid populist terms.

1.8 The proposed approach by DCMS could be enhanced at several levels to take advantage of the substantial groundwork done by BDUK. Particular attention should be paid to what are FTTP Hamlets, where it is cheaper to offer FTTP than it is to fund an FTTC solution.

1.9 The current approach is lacking any link to the original goal of being best in Europe, as opposed to being marginally better than the larger economies.

1.10 More detail could be outlined on what a Broadband service actually is. As implied but not described, the USO is a product which will enable access to what it is a best effort data transport service. The capacity available from such a core network is measured in Terabits per second, while the access networks can support Gigabit throughputs. Thus some effort should be made to begin to define what a national data transport service looks like, how it works, and how best to licence such an operator. Writing a USO in a way that such a facility can be accessed anywhere where the minimum throughput can be measured at 10Mbps is problematic and might be better served by focusing on what product needs to be ordered in order to achieve such an outcome.

1.11 There is no attempt to link the approach with a reconciliation of the £1.7bn of subsidies contracted by BDUK, particularly reporting underspends, clawback, and the payment by BT of its capital contribution. If BDUK Phase 1 and Phase 2 is little more than 25,000 cabinets and circa 40,000 FTTP connections, costing no more than £1bn in subsidies, then the management of the remaining public monies and BT capital contribution will have a profound impact on the quality of the service delivered in the final 5% and the gaps that exist in every town and area of Northern Ireland. The approach to subsidise BT was a decision to extend the access to be BT's core optical fibre network, which has sufficient capacity to support 10Tbps while some 3Tbps is currently lit. BDUK has funded new handover points, aggregation nodes, fibre spines to cabinets and these can be extended further, and this was and remains a condition of the state aid measure SA33671. While the state aid measure has lapsed for new public subsidy, the conditions of the measure are there to be applied for at least the next 4 years. This aspect should be fully referenced and its significance explained in progressing a design for the USO.

1.12 There is no mention of the provision of fibre on demand, including fibre to the distribution node (or manifold) and fibre to the node (mini-DSLAM) as possible contributors to meeting the USO. These products were described in outline form in the BDUK requirements of 2012 and their role in helping to establish the USO should at least be referenced.

1.13 While technical neutrality is referenced, no mention is made that different technologies have different service levels. So called technology-neutrality is only upheld if published service parameters ignore the key differentiating properties of delay, jitter and packet loss during congested periods of the different technological options. Yet these cannot be ignored if a USO utilising a codified data transport service is to be set in a manner needed to support critical services.

1.14 DCMS continue to use BT's publicity on costs without stating BDUK's experience in delivering the FTTC elements at costs significantly under BT's estimates and before any examination has been done on the presence of BT's capital contribution in the BDUK programme. It should not be acceptable to use the 2008/9 BSG costs of £29bn for a FTTP transition when the unit costs for urban areas are being quoted at less than £300 a premise to connect. Even rural areas are managing to receive FTTP connections at less than a £1,000.

1.15 ICBAN recommends that the 2012 DCMS Vision and Strategy for Broadband is updated to include any changes in Government thinking. The 10Mbps line access speed could, in a simple way, be met with a satellite service. But the satellite industry will admit that satellite is designed as an in-fill solution where others services cannot reach. The delay characteristics and cost of peak hour capacity means while playing a valuable role in the nations data transport fabric, it is not a panacea. Should the quality of the USO therefore be sacrificed by seeking a lowest common denominator which has not been designed to have national capacity?

1.16 Similarly, fixed wireless solutions have different service level parameters and by their nature need more reconfiguring and capacity as customer volumes are added. Should the USO be bound by the limitations of fixed wireless services?

1.17 There is a '95% coverage obligation by nation' contained in the licence condition attached to 02's licence. 4G is an IP based data transport service and thus the 4G coverage obligation and the intended USO should be aligned or interworked in some way.

1.18 While stating the need for a USO is easy, defining it in suitable terms and how it is to be met is another matter.

1.19 ICBAN is suggesting that any USO needs to reference the full potential of the BDUK investment of £1.7bn in BT's network. Particular reference should be made to the clauses that support the extension of the service and right of individuals to seek extensions of the service. If examined DCMS could not at least reference the full expectations of the BDUK Framework requirements and the consequences of the state aid measure being enforced. The proposal as it stands ignores the possibilities arising from the <£1bn subsidy spent so far. The remaining funds plus clawback, the BT capital and the recovered proxy costs from the early contracts, can have an even more significant impact on shaping the delivery of a meaningful USO. The proposal as it stands ignores this potential and misses the opportunity to report on some real achievements by Government, which includes the potential to go much further and deeper.

1.20 This would suggest, just as the USO for telephony can be reduced to a conditional right to order a telephone line defined in the form of a metal path facility, 'Broadband' could be defined as a right to order a medium (Wireless or fibre) capable of supporting the desired throughput. In this context limiting the USO to 10Mbps makes little sense.

1.21 Just passing the USO to Ofcom is probably not the answer, as Ofcom is principally a competition authority. Ofcom has a variety of roles, which need to be balanced.

1.22 Some definitions and guidelines are needed as to what services are expected to work and when. The latter needs to be the function of a licence of a 'data transport network provider'. Such an approach would be new and would need to be subject to peer review and public consultation. The USC of 2Mbps arose from the need to provide sufficient resources for one home worker (within a household) to be able to work from home. This definition would exclude a family of teenagers video streaming sites of their choice.

1.23 Clarity is required on the 10 Mbps referenced? How has this been calculated? Is it 5 home workers per premise pursuing work related activity, or it a more generous allowance for a household to do as it pleases? What happens if its 20 workers in an architectural practice in rural Northern Ireland? Is that now 20 times 10 Mbps for that location?

1.24 Perhaps we cannot define what the 10Mbps is for and how it was derived and thus we should not be bound by the limitation this implies.

1.25 Does this adequately consider the potential of various other technologies, including the options for FTTP in several forms? Are we realistically considering the future and our competitiveness in a digitally connected world?

1.26 ICBAN believe the capacity to order a direct fibre access service must feature for those who cannot get a 10Mbps service from the interim FTTC solution. The USO cannot be bound by any limit to access from heavily subsidised infrastructure – this has the capacity to be stretched even further.

1.27 In brief the proposed approach is not comprehensive enough, given the investments the Government has made and the very great potential to extract a great deal more from the existing BDUK initiative.

Q2: We do not propose to specify speed in primary legislation. Should speed be specified in primary or secondary legislation?

2.1 Access 'speed' be it described in 'superfast' or 'ultrafast' terms cannot adequately be used in any legislation of any sort. Legislation should firstly define broadband as a data transport capability and make clear that operators should be licensed for this purpose. This appears to be a necessary step and a pre-condition to describing the medium to access this resource.

2.2 It needs to refer to investment Government has made in extending BT wholesale data transport facility, including the number of components added, handover points, aggregation nodes, splitting locations, cabinets. It should report on the monies remaining to further extend this facility using the clauses of the BDUK contract and the conditions of the state aid measure supporting that investment.

2.3 The legislation could refer to this minimum throughput figure but also refer to customer's right to order and pay for a direct fibre access connection should they wish.

2.4 Why would the Government make available £1.7bn of taxpayers money unless the contracts permitted the network to be extended? Why would a proposal on the USO ignore the detail of what the Government has paid for and the conditions under which that investment was allowed?

2.5 Perhaps the legislation would make explicit reference to customers not being bound by the properties of the existing Metal Path Facility supporting telephony, when a superior medium with a lower term cost is available. Perhaps the legislation could make specific reference to customers not being denied access to this potential. Expediency and short terms interests should not prevent this potential to be fully exploited.

2.6 In this context therefore the legislation should be defined by the properties of the best available medium and not around the convenience of what a dominant supplier might wish to provide.

2.7 ICBAN suggests the legislation could be used to instruct Ofcom to make provision to define and licence a wholesale data transport provider(s).

2.8 The legislation should also seek to support provision of the best medium. This would include the provision of fibre access product, and a customer's conditional right to order such a product.

2.9 The Legislation could grant Ofcom some discretion as to how and when such measures come into force, including the nature of the conditional right to order such a service.

2.10 The same legislation could also clarify and limit the use of commercial confidentiality, to ward against any withholding of basic project data on costs and coverage.

Q3: In terms of giving the Secretary of State a power to direct Ofcom to review the USO, should Government have a continuing role in the USO, or should this be a matter for Ofcom?

3.1 The Government must own the ambition and the policy to fulfil that ambition and not just pass a USO to Ofcom to define and enforce without instructions.

3.2 There is a fundamental issue with the information being used to inform public policy on this matter. The investment data for next generation access must be independently verified. BT claimed investment typically includes 10 years of future operational costs. BT bid data supporting requests for state aid was found by the NAO, BDUK and several Parliamentary Select Committees as unreliable. The latter has been a significant factor in the calls for BT to be broken up.

3.3 The Government should have the courage to enforce the BDUK requirements and the lapsed state aid measure as a contribution to realising the USO. This would build upon the work of local authorities where future proof connectivity is being included in their planning guidelines. The USO can build upon this practice and include support for a future proof product that can at least be ordered.

3.4 Ofcom's strategic review supporting dark fibre provision and orchestrating improved access to BT's duct and poles can increase competition. Ofcom can also use its powers to amend operators licences to capture, if needed, the requirement to codify a 'data transport service', its properties and any need for a minimum standard. Through government and Ofcom working together, this means a USO can be written to overcome any considerations to over rely upon a cheap interim solution, by establishing for customers the right to replace their telephone lines with an access line capable of much greater throughputs with a lower long term cost. Ofcom can use its powers to define what is a new market and then promote access to foster more competition. The Government should set the policy, and Ofcom then help determine the pace at which that policy is applied and enforced.

3.5 Ofcom on its own is unlikely to be able to bring to pass the requirement and ambition Parliament is seeking on behalf of the electorate. It needs to be a joint effort to counter the commercial considerations which limit the provision for rural Broadband.

Thank you again for the opportunity to reply to this consultation.

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