

Marina Gibbs
Group Director for Competition
Ofcom

By email only

13 March 2015

Dear Marina,

Business Connectivity Market Review – Passive Access Group

1. We refer to the meeting between members of the Passive Access Group ('PAG') Towerhouse LLP, Frontier Economics and Ofcom on 9 March 2015. The PAG members are grateful for the opportunity to discuss their views that passive remedies will offer substantial benefits for competition and consumers in the UK, and that the potential implementation questions can be readily addressed.
2. During the meeting, Ofcom asked the PAG to follow up with its views on a number of issues related to the introduction of passive remedies. The PAG's responses are set out below.
3. The PAG would of course be very happy to discuss these responses, or provide any additional information, if that would be helpful.

Yours sincerely,



Lucas Ford

1. Implementation timeframes

- 1.1. Ofcom requested a summary of the implementation timeframes for introducing passive remedies in other countries.
- 1.2. From the PAG's perspective, we are very keen to see passive remedies implemented as soon as possible. In particular, we believe that a dark fibre remedy could be developed and industrialised with very few changes to existing BT processes (and those mostly around repair processes), since it is fundamentally no more than a cut-down version of existing active products. With regards to a ducts and poles remedy, we would note that BT already offers PIA. While there are significant shortcomings in the specification and process for consuming this product, its existence means that duct and pole access is already available and can be offered to the business market by removing the artificial restrictions while work continues to make it scalable and fit-for-purpose. In both cases the PAG's preference is for Ofcom to require a product to be made available as soon as possible, with the acknowledgement that (particularly in relation to duct) a level of regulatory supervision and refining of the product may be required over time. The PAG will move swiftly to do what needs to be done internally, with BT and other stakeholders to develop the appropriate systems and processes, as soon as we have a clear message that passive access regulation will be implemented by Ofcom. As mentioned, in the short term, a clear indication of the likely legal framework and implementation timeframes is necessary for the PAG members to develop solid and extensive business plans.
- 1.3. The international experience is heavily dependent on the particular circumstances (eg, the extent to which the incumbent had already prepared for the decision, the existence of commercial offerings and the incumbent's existing internal processes for consuming passive inputs) but we think any implementation period need not be lengthy. For example:
 - 1.3.1. in Spain, in mandating access to duct for NGA purposes, the regulator provided a one month period for the incumbent to update its reference offer, given it already had a duct product in place that just needed to be scaled up;

- 1.3.2.the Danish regulator provided a 30 day period for the incumbent to prepare a reference offer (but the regulator signalled that additional time would be available depending on the degree to which the incumbent involved the rest of the industry in developing the offer);
 - 1.3.3.in Portugal, in mandating access to duct access, the regulator provided a 90 day period within which PT had to prepare and submit their reference offer (with a 30 day period following which that reference offer would enter into force);
 - 1.3.4.in the UK WLA market, Ofcom provided about 3 months for BT to prepare a draft reference offer for duct access (PIA), with a view to a product launch within eight months. However, prior to the final statement, BT had already agreed to provide the access and was in advanced discussions with access seekers about development of the reference offer; and
 - 1.3.5.the Italian regulator’s decision introducing duct and dark fibre obligations provided a 6 month period for guidelines to be developed on fibre access and the conditions for infrastructure sharing.
- 1.4. In countries with shorter implementation timeframes (in particular Spain and Portugal), there was ongoing regulatory supervision and tweaks to the remedy to ensure it was ‘fit for purpose’. However, these countries were also in some cases ‘first movers’. We see the potential for Ofcom to take advantage of the lessons learned in those jurisdictions: ensuring the remedy is appropriate and usable by CPs without significantly extending the implementation timeframes. More information can be found in paragraphs 6.54 to 6.66 in the report by Towerhouse LLP submitted by the PAG *“Implementing Passive Remedies in the UK”* (“**Towerhouse Implementation Report**”).

2. Geographic boundaries

- 2.1. We were also asked to consider the PAG’s position on the appropriate geographic boundaries of any passive remedy.
- 2.2. As set out in the Towerhouse Implementation Report (para 5.38), there is a clear distinction between:

- a. 'pure' geographic limits i.e., where remedies are available throughout an geographic sub market, or where remedies vary within a national market¹; and
- b. limits that flow from the nature of the network topology in the service description (such as requirements that a passive remedy may only be used between certain network locations and/or parts of BT's network). In some cases these have been described by Ofcom as geographic limits however they may be perhaps more accurately described as service description limits.

- 2.3. Setting pure geographic limitations is consistent with Ofcom's existing approach and may have theoretical justification. Where applied appropriately, such limitations should not impact demand for passive remedies. However setting such geographic limits introduces considerable additional regulatory burdens and provides additional opportunity for the incumbent to game access seekers and exercise discrimination.
- 2.4. Accordingly, the PAG members believe that too granular an approach to carving out particular submarkets or permitting such pockets to overshadow the implementation of an SMP based remedy for the whole market needs to be considered very carefully, taking into account any possible detriments to the likely reduction in overall benefits to competition.
- 2.5. Further, the report prepared by Towerhouse entitled "*Geographic market definition in the BCMR*" submitted to Ofcom on 20 February 2014 explores Ofcom's current approach to geographic market definition in the BCMR and recommends changes to the current analysis. The solutions proposed in the report may impact geographic boundaries.
- 2.6. Finally, the PAG does not consider that service description limits from the nature of network topology are necessary or appropriate. In particular, service description

¹ BEREC has acknowledged that 'In case of geographical variations in competitive conditions within this national market, it may be appropriate to vary remedies within that national market': BEREC, *BEREC Common Position on Geographical Aspects of Market Analysis (Definition and Remedies)* (2014) p 35.

limits could arbitrarily limit CPs' flexibility in deploying new types of network topologies, inhibiting innovation and allocative efficiencies.

- 2.7. Ofcom should be careful to ensure that the design of passive remedies does not constrain CPs simply to emulating existing services provided by BT. If passive remedies were restricted to specific downstream product markets where Ofcom finds that BT has SMP, then CPs will be limited to providing products that are based on the same technical parameters as BT's existing products. This turns the process of defining the relevant markets from being a tool to understand current market dynamics into an outcome: directing and limiting the path of future market growth and innovation. This would be putting the cart before the horse - an outcome that Ofcom seeks to avoid. The benefits of passive remedies will arise when CPs are in a similar position to BT in terms of the flexibility with which they can use BT's national passive infrastructure networks. Further, not imposing service description limits is consistent with the approach of other NRAs implementing passive remedies and is supported by the NGA Recommendation and the Commission.
- 2.8. Though service description limits have been used in the past (e.g., in relation to the PIA remedy) this was to prevent spill over into business connectivity markets. This will not be necessary if Ofcom regulates access to duct and dark fibre in relation to local access and business connectivity markets given that these together comprise the only applications that are contemplated for passive remedies. More information can be found in paragraphs 5.38 to 5.49 of the Towerhouse implementation report.

3. Product development

- 3.1. We understand Ofcom was interested to understand the PAG's view on whether, if passive remedies are introduced, Ofcom should continue to require BT to make any new fibre-based business connectivity products it may develop available to other CPs.
- 3.2. It is essential that BT makes any new access products available to all CPs on an Equivalence of inputs basis so long as it continues to have SMP.
- 3.3. Passive remedies may need to co-exist with active remedies but they may over time create the potential for reducing regulation in the long term (in areas where take-

up is strong). To the extent it might be necessary for passive and active remedies (or different types of passive remedy) to co-exist in particular areas, this is consistent with Ofcom's approach to remedies in other markets.

- 3.4. CPs may need to consume active products in parallel to passive products. Passive remedies will not immediately address BT's SMP's in the provision of BCMR products. CPs may need to consume active products in the meantime for example because CPs would need to road test any new passive remedy. Also, some forms of passive access may take longer to implement than others and in the meantime CPs may require access to active products instead. For example dark fibre in the form of "boxless" EAD can be made available first as it should require little more than an update to the ordering fields in the current systems and documents confirming repair processes. Duct access may follow once BT removes the restrictions on the current PIA product and makes it available on an industrialised basis and fit for purpose.

4. Position of non-PAG infrastructure-based competitors

- 4.1. As Ofcom observed, a small number of BT competitors that build their own infrastructure do not support the introduction of passive remedies in this market review round. The primary two we are aware of are Virgin Media and CityFibre.
- 4.2. The PAG's view is that CityFibre offers far more limited services than the PAG would wish and are seeking from BT, and on a scale that makes it very unlikely that it could implement a model that can adequately address the systemic problems that exist in UK business markets. For example, based on its May 2014 share placement documents,² the PAG's understanding is that CityFibre:
- 4.2.1. is small in scale, managing just 290km of fibre and duct access;
 - 4.2.2. only targets cities with a population of between 100,000 – 500,000 people; and
 - 4.2.3. seeks to secure up-front tenants who will provide 50-100% of the network construction costs. These are generally public authorities such as local

² See <http://static1.squarespace.com/static/50a0c308e4b081ffff792a0b/t/5385db70e4b040539be7abd9/1401281392694/Shareholder+Circular+23+05+14.pdf>.

councils, schools and hospitals. For example, CityFibre’s most extensive network (111km in length, or nearly 40% of CityFibre’s total network length) is in York, and its customer base for that network is dominated by 105 council sites and schools.

- 4.3. In this context, CityFibre views (other) business and consumer customers as helpful “add ons” to get further returns on its existing network investments – not as its core customer base. We understand that CityFibre does not offer the type of business-grade services designed for the needs of the private sector that could be delivered using passive remedies.
- 4.4. We would note, however, that there may well be benefits to CityFibre and similar businesses from the introduction of passive remedies, which CityFibre has not considered. Passive remedies would permit significant new investment in business-grade services throughout the UK. By creating a market and set of new business models, CityFibre may well find new opportunities to provide dark fibre access to other CPs, enabling those CPs to innovate.
- 4.5. Virgin Media argued in response to the Ofcom consultation paper that it provides dark fibre and this has not driven innovation. However, the PAG’s experience is that Virgin Media dark fibre is available on too limited a geographic basis for PAG members to develop commercial services. Further, there is uncertainty about the willingness of Virgin Media to continue to offer a commercial dark fibre product in future. Both of these factors pose significant difficulties for any new business case to invest in dark fibre based on leasing Virgin Media’s assets and mean that Virgin Media has not proposed a realistic alternative to passive remedies.

5. Complementary remedies

- 5.1. We were also asked to provide some information about jurisdictions with concurrent duct and dark fibre access available.
- 5.2. We note firstly that the PAG’s view that the remedies are complementary is based on (i) an analysis of how CPs use duct and dark fibre, which suggests that one remedy may be more favourable than the other in different circumstances and the benefits are greatest when CPs have the choice of either; and (ii) Ofcom’s reasoning when adopting both a duct access remedy (PIA) and a sub-loop unbundling remedy

in the 2010 WLA market review, which we felt was persuasive. This centred on the need to reflect that different remedies would be sustainable in different circumstances and that a 'mixed economy' of products would better reflect market uncertainties.

- 5.3. The Austrian telecoms regulator adopted this reasoning, in deciding to provide concurrent dark fibre and duct remedies.³ In addition, we found anecdotally that in some cases a duct access remedy led to commercial availability of dark fibre offerings, such that a separate dark fibre remedy may have been perceived as less necessary.
- 5.4. As is set out in sections 5.8-5.13 of the Towerhouse Report, there is significant support at the European level for concurrent regulation of duct and dark fibre as complementary remedies, in order to create the opportunity for competing investment at the deepest possible layer. For example, the EC's art 7(3) comments to the Austrian regulator in 2010 noted that in connection with SLU backhaul:

The Commission notes RTR's proposal to require TA to provide access to its unlit fibre only in circumstances where the provision of duct is technically not possible. However, RTR does not appear to analyse in detail the cost differences of using duct and dark fibre to backhaul traffic. It cannot, therefore, be excluded that in certain cases it might only be economically feasible for alternative operators to reach the street cabinet or in-premises distributor by accessing dark fibre instead of laying down own fibre lines in TA's ducts. In the Commission's view, it is important that SLU is supplemented by appropriate backhaul measures to make SLU effective and that access seekers should be able to select the solution best fitting their requirements. The Commission, therefore, invites RTR to ensure that the objectives laid down in Article 8 of the Framework Directive are met by re-defining the proposed remedies in a way that access seekers can opt for dark fibre even where there is spare duct capacity should cost considerations justify such a choice.

³ See https://www.rtr.at/de/tk/M1_1_12/30308_M_1.1_12_web.pdf - available in German only.

- 5.5. The EC has made a number of similar comments to other regulators (including the Romanian and Hungarian regulators) about the need to ensure CPs have different options available so that they can choose the most economic and efficient backhaul remedy.
- 5.6. As part of our research, we examined particular country case studies that addressed Ofcom's concerns rather than performing a comprehensive regional study. However, without this being a comprehensive list, we have observed other countries' regulators deciding to impose both passive remedies concurrently in certain circumstances:
- 5.6.1. the Norwegian regulator has imposed duct and dark fibre as concurrent remedies for backhaul in market 4;⁴
- 5.6.2. in Denmark, obligations were imposed in market 4 in relation to duct and dark fibre;⁵ and
- 5.6.3. the Italian regulator imposed obligations in relation to duct and dark fibre concurrently.⁶
- 5.7. Accordingly, the PAG considers that there is substantial international experience of concurrent regulation of duct and dark fibre.

6. Could dark fibre be sufficient?

- 6.1. Finally, we address the question raised about whether dark fibre with a reasonable build obligation would be an acceptable alternative to duct access.
- 6.2. As an initial point, a move towards using a dark fibre obligation to justify not introducing a duct access obligation would be unusual in light of international trends. The PAG's general observation is that duct access obligations are widespread, well understood and have been working well in many jurisdictions. The PAG believes that Ofcom could easily adopt the lessons learnt overseas to develop an efficient and effective duct access product – and, likewise, CPs are likely

⁴ See http://eng.nkom.no/market/market-regulation-smp/markets/market-4-and-5/_attachment/14152?_download=true&_ts=147f814db74.

⁵ See https://erhvervsstyrelsen.dk/sites/default/files/endelig_markedsafgorelse_tdc_marked_4.pdf - in Danish only.

⁶ See <http://www.agcom.it/documents/10179/539275/Delibera+731-09-CONS/d973467d-650d-498a-a81f-5f588a4c059a?version=1.0> – in Italian only.

to have greatest confidence in a product which is similar to those they use and are familiar with elsewhere.

- 6.3. Secondly, the potential usage cases of passive access remedies demonstrate that access to ducts and poles and to dark fibre are complementary forms of passive access. They are suited to different circumstances and all these types of access are likely to be necessary to optimise an investment business case in alternative network infrastructure. The benefits of a passive access remedy are maximised where access is available to both BT's ducts and poles, and to its dark fibre.
- 6.4. If Ofcom were to decide not to implement a duct access remedy, we believe there is some potential for a properly designed 'dark fibre with new build' obligation to enable CPs to design their own network topologies including where network segments do not currently exist, provided Ofcom makes the remedy available on this basis.
- 6.5. However, we understand Ofcom is considering the merits of a dark fibre with a 'new build' obligation that mirrors BT's existing obligation with respect to building new leased lines (subject to ECCs) on reasonable request. Unless the solution enables CPs to request new dark fibre on a segment-by-segment basis and on routes selected by CPs, this solution will offer very few additional opportunities for innovation over an existing active remedy. It will not enable CPs to enjoy the potential benefits of duct access and does not provide the flexibility that PAG members like Colt require in order to integrate passive remedies into their business plans.
- 6.6. Specifically, a 'new build' obligation for dark fibre that simply mirrored the 'new build' obligation for leased lines would:
 - 6.6.1. not enable CPs to use combinations of their own fibre segments and BT dark fibre segments in order to deliver a service as efficiently as possible given the CP's existing investments;
 - 6.6.2. not give CPs control over the network route in order to offer customers a network topology that best serves their needs (for example, by maximising redundancy);

- 6.6.3. not enable CPs to flexibly reuse network capacity, for example by redeploying particular dark fibre segments to serve different routes as customer requirements change. Instead, we understand Ofcom's proposal is that CPs could only order dark fibre to service a particular customer, rather than on a segment-by-segment basis; and
- 6.6.4. not facilitate efficient network expansion. Based on our understanding, dark fibre would be provided as a replacement for a single leased line, on a point-to-point basis.
- 6.7. To approximate the benefits of duct access, it is essential that any dark fibre remedy be provided on a segment-by-segment basis (that is, not just as a single leased line replacement) and the 'new build' requirement would need to provide not just for network extensions to specific customer access points where duct/dark fibre does not exist, but for CPs to request that BT 'break out' of existing duct/dark fibre routes mid-way in order to establish new network routes and topologies. It would need to do so in a manner and in timescales that are comparable to what could be achieved using duct access. Without these characteristics, the prospects for innovation will be severely constrained. Specifically, the types of innovative business models that have been adopted by PAG members like Colt in other jurisdictions (such as delivering fibre to business parks in order to deliver multiple services to different business customers) rely on passive remedies being flexible and adaptable to changes in customer demand. These business models are not viable with a dark fibre product where any 'new build' must be delivered to a customer end-point as a replacement for a single leased line.
- 6.8. The PAG members are not aware of a 'dark fibre with new build' solution in other countries in Europe that is commonly used, effective and has relieved the need for a duct remedy. While we believe a remedy of this type could work if it had the scope described above, it is relatively untested in comparison with the well-established models for duct. We would encourage Ofcom to consider the benefits of developing a regulated duct access remedy in the BCMR so that there is a clear regulatory framework before the EU Civils Directive is transposed. Nevertheless, if Ofcom does not proceed with a duct access remedy, dark fibre with a reasonable

new build and break-out obligations could offer an alternative way forward if it was available on the basis described above.