

Response to Ofcom's *Business Connectivity Market Review Consultation Paper* and *Leased Line Charge Controls and Dark Fibre Pricing Consultation Paper*

Joint submission by the Passive Access Group: Colt Technology Services, Sky, TalkTalk, Three UK and Vodafone

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Introduction

- 1.1 The Passive Access Group (“PAG”) is a group of the UK’s major communications providers, consisting of Colt, Three UK, Sky, TalkTalk and Vodafone. The PAG was established because of the group members’ shared view that passive remedies are essential to promote competition in the business connectivity market. Representing a cross section of some of the largest providers of fixed, mobile, public and private network providers in the UK, the PAG members are very significant consumers of business connectivity products and services and consequently fully support Ofcom in its proposals to introduce a dark fibre remedy.
- 1.2 This submission sets out the PAG’s joint response to the:
 - 1.2.1 *Business Connectivity Market Review: Review of competition in the provision of leased lines* consultation paper (the “BCMR Consultation Paper”); and
 - 1.2.2 *Business Connectivity Market Review: Leased lines charge controls and dark fibre pricing* consultation paper (the “CC Consultation Paper”).

Summary

- 1.3 The PAG strongly supports Ofcom’s proposed introduction of passive remedies as the much needed next step in promoting infrastructure based competition and fibre investment in the UK. The introduction of passive remedies will open up communications markets in the UK to greater competition which will drive innovation, higher speed and reach networks and result in lower prices and better service for consumers. However, the PAG has some significant concerns with Ofcom’s proposals including that:
 - 1.3.1 The PAG believes that Ofcom’s approach to pricing dark fibre is flawed; and
 - 1.3.2 The PAG considers that Ofcom should also mandate access to BT’s duct.
- 1.4 In order to inform its response and assist Ofcom to improve the chance of achieving the potential benefits from a dark fibre remedy and better meet its objectives, the PAG has commissioned a report from Frontier Economics “*Ofcom’s proposals on regulated dark fibre*” (the “Frontier report”, attached at Annex A) which is to be read as part of this response. This is summarised below at pages 15 to 18.
- 1.5 While we believe that the PAG and Ofcom agree that dark fibre is a necessary remedy for the market, our difference lies with how that product is priced.
- 1.6 Ofcom has proposed a wholesale minus approach, deducting the pure long run incremental cost (“LRIC”) of the active service from the price of BT’s active 1Gbit/s LA wholesale service (described in this submission as “active minus”).
- 1.7 The PAG considers that flaws in Ofcom’s approach to dark fibre pricing have emerged because Ofcom has applied its assessment criteria through a particular lens which we consider does not reflect the evidence. This approach is likely to fail to achieve Ofcom’s objectives if the dark fibre remedy is imposed in its current form. The Frontier report reviews Ofcom’s assessment criteria and concludes that – applying the appropriate

weighting factors, having particular regard to economic theory, the facts and Ofcom's duties and objectives –, pricing dark fibre by reference to a "cost plus" methodology is clearly superior for the purpose of meeting Ofcom's duties and objectives.

- 1.8 The PAG considers that the active minus pricing proposal risks failing to promote competition throughout the Contemporary Interface Symmetric Broadband Origination ("CISBO") market in accordance with Ofcom's statutory duties and objectives because the remedy proposed will not adequately address issues of BT's market power in the active services markets taken as a whole, in particular for the lower bandwidth market segments where BT's market power is strongest. The PAG also considers that the active minus proposal may be inconsistent with the general competition law of margin squeeze given it does not effectively enable a dark-fibre based competitor which was equally efficient as BT to viably compete in the majority of the market that comprises services below 1Gbit/s.
- 1.9 The PAG strongly urges Ofcom to reconsider its pricing proposal in light of the PAG's review of Ofcom's assessment methodology, set out in the Frontier report.
- 1.10 In addition, the PAG considers that Ofcom should introduce a duct access remedy. The PAG considers that duct access and dark fibre are highly complementary remedies and that, if introduced, duct access would generate significant efficiencies and benefits for consumers. Further, the PAG considers that any perceived problems generated by the introduction of duct access are without proper basis. The PAG disagrees with Ofcom's conclusion that the imminent introduction of the Civil Infrastructure Directive is not relevant to its provisional assessment not to impose a duct access remedy as part of this BCMR and, indeed, believes it is essential that Ofcom establish a clear ex ante pricing rule for duct ahead of the implementation of the Directive.
- 1.11 In the rest of this introduction we deal with the background to the current response and highlight a key factual issue. Subsequent sections of our response are as follows:
 - 1.11.1 Our views regarding Ofcom's decision not to impose a duct access remedy;
 - 1.11.2 A short summary of the PAG's concerns with "active minus" pricing, including a summary of the Frontier Economics report which details the PAG's view that "cost plus" is the most appropriate methodology for pricing dark fibre;
 - 1.11.3 Our views regarding Ofcom's quality of service proposals;
 - 1.11.4 A summary of usage cases for passive remedies;
 - 1.11.5 Our responses to Ofcom's consultation questions;
 - 1.11.6 Annex A – Report by Frontier Economics regarding "cost plus" pricing for dark fibre; and
 - 1.11.7 Annex B – Detailed drafting comments in relation to Quality of Service ('QoS').

Background

- 1.12 On 6 November Ofcom published the *Preliminary consultation on passive remedies* (the "passives consultation"). On 19 January 2015 the PAG submitted its joint response to

the passives consultation setting out its support for duct and dark fibre passive remedies to address BT's significant market power ("SMP") in the provision of business connectivity. The PAG's response attached a report by Frontier Economics setting out the PAG's view of the approach to costing and pricing passive remedies that will best achieve Ofcom's objectives ("PAG costing and pricing of passive remedies report") and a report by Towerhouse LLP on the demand and regulatory implementation issues identified by Ofcom in the passives consultation ("PAG demand and implementation report") (together the "passives consultation response").

- 1.13 The PAG's response to the passives consultation in January 2015 set out its view that passive remedies are a necessary next step in access regulation in the UK having regard to, amongst other things:

1.13.1 the exponential growth in demand for broadband at higher speeds;

1.13.2 the failure to meet the needs of SMEs;

1.13.3 the business cases of CPs;

1.13.4 the requirements of the Common Regulatory Framework ("CRF");

1.13.5 international experience; and

1.13.6 the maturity of the markets and stakeholders in the UK.

- 1.14 The PAG's response to the passives consultation also detailed the substantial and wide ranging benefits that would likely follow from imposing both duct and dark fibre passive access as remedies. In particular, that duct and dark fibre remedies together were complementary and that providing both remedies concurrently will realise the greatest benefits for competition and consumers. In support of this view, the PAG provided:

1.14.1 empirical evidence from other countries with experience in imposing passive remedies. The evidence showed that passive remedies have resulted in significant benefits in those countries, including new high speed networks, innovative products and investment;¹

1.14.2 empirical evidence that, in other countries, whether duct access or dark fibre or a combination was imposed, there was no cost recovery 'Armageddon' for the incumbent operator;² and

1.14.3 an assessment of Ofcom's proposed potential pricing methodologies that could be applied to duct and dark fibre. The Frontier report set out the PAG's detailed view that:

1.14.3.1 duct access may involve more complex pricing but would result in the most significant opportunities and benefits for network configuration and innovation;

¹ PAG demand and implementation report, paragraph 5.31.

² PAG demand and implementation report, paragraph 5.31, 6.67 to 6.80.

1.14.3.2 active minus pricing may theoretically require less rebalancing however would require detailed monitoring and would restrict innovation by consigning dark fibre to a substitute of existing active services;³ and

1.14.3.3 cost plus pricing offers significantly higher benefits overall than active minus, including a straightforward way to implement a dark fibre remedy with minimal economic risk to BT in terms of cost recovery. On that basis the PAG proposed that cost plus pricing is a clearly superior pricing option.⁴

1.15 In the BCMR consultation, Ofcom agreed with many of the PAG's findings including that it was appropriate to impose a dark fibre remedy. However, despite what appears to be a 'close race' based on Ofcom's scoring against its objectives, Ofcom has nevertheless proposed to introduce dark fibre based on active minus pricing, pegged to the price 1Gbit/s EAD circuits ("the active minus pricing proposal"). The PAG continues to consider that active minus pricing is clearly inferior to cost plus pricing and, further, that the particular design of Ofcom's pricing proposal renders the remedy even more seriously flawed.

Ofcom appears to have been operating under a factual misunderstanding

1.16 The PAG has an additional serious concern that when Ofcom was considering which pricing methodology would best meet its objectives, it was operating under a misunderstanding that:

1.16.1 there are very few (if any) economies of scale and scope required to enter the market, purchase dark fibre and become a serious competitor to BT's EAD Ethernet services; and

1.16.2 if granted, CPs would use dark fibre primarily to supply an "EAD replacement" for services under 1Gbit/s.

These two points underpin Ofcom's concern about what it terms "arbitrage" which it considers will not materialise if the dark fibre pricing structure is "compatible" with active services pricing.

1.17 Ofcom's main concern with arbitrage is that it will cause "inefficient entry"⁵ and that it is the biggest risk to BT's recovery of its costs.⁶ Indeed section 26 is dedicated to:⁷

"...consideration of the pricing approach that could be adopted for our proposed passive (dark fibre) remedy and how these might be used to minimise the potential distributional impacts and arbitrage effects discussed in Annex 24"

³ PAG costing and pricing of passive remedies report, paragraph 2.4.

⁴ PAG costing and pricing of passive remedies report, paragraphs 4.1.1 to 4.1.6 and throughout.

⁵ 7.49, footnote 202.

⁶ A24.47.

⁷ A26.1.

- 1.18 Ofcom therefore provisionally concludes that setting an active minus approach pegged to the price of 1Gbit/s EAD circuits was appropriate to prevent “arbitrage” of BT’s active product offering for services under 1Gbit/s.⁸
- 1.19 It therefore appears that Ofcom has misunderstood the facts about CPs’ use cases for dark fibre, and therefore has proposed a pricing rule for dark fibre which is flawed. Further the PAG considers that Ofcom’s use of the term “arbitrage” is unnecessarily emotive and its concerns are misplaced.
- 1.20 First, any so called “arbitrage” would be addressed by a Fully Allocated Cost approach to setting the dark fibre price, which would allow Openreach’s prices for both active and passive products to reflect cost attribution in the medium term. Given the payback on dark fibre investment will occur over a number of years, inefficient entry is simply not a feasible business case given any short run differences in the recovery of fixed and common costs between active and passive services would be ironed out before the required investment could be paid off. Ofcom’s fears about mass inefficient entry by CPs seeking to provide active services in competition with BT by purchasing dark fibre and ‘a couple of boxes’ are therefore unfounded.
- 1.21 Secondly, as set out in some of the PAG members’ separate submissions to Ofcom, the business case for fibre investment and the economies of scale and scope required to provide active services if dark fibre was available is challenging. That scale requirement to serve the market exists today and will continue to exist in the same way with dark fibre available.
- 1.22 PAG members, individually and/or as part of the PAG, and other industry participants, have also previously set out the varied and numerous use cases they have for passive remedies – from building and reconfiguring networks, to fixed and mobile backhaul, to developing new product offerings in response to consumer demand. The PAG sent a further letter to Ofcom reiterating this point on 17 July 2015 and provides a fuller detailed response beginning at page 25 below. The PAG do not believe that Ofcom can have legitimately reached the conclusion that the PAG members intend a narrow EAD replacement use case given Ofcom summarised the responses from industry for the proposed uses for dark fibre at A23.197 to A23.249 of the BCMR and provisionally concluded:

“A23.250....the responses to the November Consultation make it clear that there is an appetite to use passive remedies for a wide range of applications in the business connectivity market, and not only for mobile and fixed backhaul. Therefore, we consider that the benefits from having control over the choice of electronic equipment and a greater responsiveness to the end users’ needs including differentiation in their product offering are likely to be realised across all market segments.

A23.251 As such, our preference would be not to restrict the use of passive inputs for any specific applications within the business connectivity market. Although, as we discuss in Annex 24, the restrictions in the use of passive remedies could help

⁸ 9.87, A24.63 b).

minimise some of the unintended consequences of introducing them such as disruption to common cost recovery, they could also significantly reduce the usefulness of a remedy. In particular, any restrictions may not allow CPs to maximise the scale and scope efficiencies of their investment and as such undermine the business case for using passive remedies. In addition, any usage restrictions would limit the scale of potential to relax downstream regulation given that active remedies are used across a range of applications.

A23.252 The type and scale of the benefits that could be delivered using passive inputs are not only dependent on the applications they are used to supply, but also on the form of a remedy...” [our emphasis]

- 1.23 The PAG have again set out their intended uses for dark fibre below at paragraphs 5.1 to 5.20. The PAG are also concerned that Ofcom has been acting under a misapprehension that PAG members have little or low demand for dark fibre at levels under 1Gbit/s. This is also not the case. Almost all of the PAG’s use cases apply equally to services under 1Gbit/s – the PAG members are not about to ignore over 70% of the market with their network investment, product developments and offerings. The PAG’s emphasis on higher bandwidth services has come about due to the clear mismatch between the cost to BT of providing those services and the prices charged to other CPs for using those services. While there is less of a mismatch of prices for services under 1Gbit/s, that does not mean that the same efficiency considerations would not apply to dark fibre offered below this bandwidth level.
- 1.24 Notwithstanding this,⁹ it is not necessary for Ofcom to require CPs to detail a threshold of use cases before it decides it should grant dark fibre with a pricing rule that enables broad use of dark fibre. New innovative use cases will only naturally evolve from actual demand volumes once a legal framework to make it possible is in place. As the PAG has already emphasised in the demand and implementation report it submitted to Ofcom:¹⁰

“...if Ofcom were to restrict the use of ducts to particular the downstream product markets where Ofcom finds that BT has SMP, then the effect will be to limit CPs use of duct access to products and services that are based on the same technical parameters as BT’s existing products. This will not solve the problems that exist in today’s business connectivity market, with its ‘black spot’ of small to medium businesses that require higher quality services than residential broadband but which cannot currently afford the price of dedicated leased lines. It will also turn Ofcom’s market definitions from being a tool to understand current market dynamics into a self-fulfilling prophecy that directs the path of future market growth and innovation, by allowing SMP remedies to introduce competition in the market only where it falls within the neat market categories and segmentations already identified by Ofcom. Such an outcome clearly cannot hope to emulate the effect of a truly competitive marketplace, where growth is likely to emerge through enabling CPs to produce innovative, ‘category-busting’ and bespoke services tailored to meet the requirements

⁹ In a similar way that it is not necessary for Ofcom to require industry to demonstrate a demand threshold as a precondition for imposing passive remedies: see PAG demand and implementation report, paragraph 5.13ff.

¹⁰ Paragraph 5.36.

of individual customers. Significant market growth and development can only be expected 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. Accordingly, passive remedies offer the prospect of substantial growth and development in the market – but this is only if passive remedies allow CPs to deliver innovative new services that disrupt settled product categories and market structures. This is consistent with BEREC's common position on best practice in remedies for wholesale leased lines, which emphasises that access to colocation and associated facilities should not be 'artificially segregated by product or market'."

- 1.25 Ofcom appears to have recognised and adopted this reasoning by providing a broad product description for dark fibre. It is all the more puzzling, in this context, that a pricing model has been proposed which consigns dark fibre to an EAD replacement and only enables CPs to use it as such profitably at higher bandwidths. Therefore the PAG considers that such restrictions on use of SMP remedies i.e., a remedy with a pricing model that only enables competition for services over 1Gbit/s, may also in fact be inconsistent with the CRF.
- 1.26 All else aside, if Ofcom has misunderstood the PAG and wider industry on its intended use cases and this has had a significant impact on Ofcom's weighting of the factors for its scoring of pricing methodologies (which it seems to have), the PAG considers that Ofcom should revisit its assessment. The PAG understands this change in proposal may require a further short consultation, which it provides its full support for.

Ofcom's decision not to impose a duct access remedy

- 2.1 Ofcom has declined to require BT to provide access to its duct, on the basis that:
- 2.1.1 the additional benefits of requiring access to ducts over access to dark fibre alone are likely to be limited;
 - 2.1.2 a duct access remedy would not allow Ofcom to as effectively “mitigate the risks” of introducing passive remedies;
 - 2.1.3 dark fibre would use BT's infrastructure more efficiently than duct access; and
 - 2.1.4 a dark fibre remedy alone therefore achieves the most “appropriate balance”.¹¹
- 2.2 The BCMR Consultation Paper significantly understates the benefits of a duct access remedy and overstates the risks of its introduction. Further, Ofcom's emphasis on efficient use of BT infrastructure does not reflect a full assessment of the efficiency benefits that concurrent regulation of duct and dark fibre would offer.
- 2.3 Accordingly, the PAG strongly believes that Ofcom would maximise the benefits to competition by introducing duct and dark fibre as complementary and co-existent remedies.

The additional benefits of a duct remedy are substantial

- 2.4 The PAG considers that the incremental benefits of regulating both duct and dark fibre, over a dark fibre remedy alone, would be substantial. Ofcom puts forward two bases for its view that the incremental benefits of duct over dark fibre are “limited”, both of which are flawed and do not support Ofcom's conclusion.
- 2.5 First, Ofcom contends that there would be less take-up of duct access than of dark fibre. However, as was outlined in the PAG demand and implementation report,¹² it is not necessary for Ofcom to require evidence of demand – or to “second guess” the expected level of demand – as a prerequisite to implementing a new SMP remedy. A key benefit of passive remedies is their ability to facilitate experimentation and innovation which create conditions for new investment – which means that the level of demand cannot be known in advance. Further:
- 2.5.1 the Access Directive specifically rejects the notion that it is appropriate to link the terms of access to CPs' degree of investment;¹³ and
 - 2.5.2 Ofcom's reasoning is inconsistent with its past, well established practice of not requiring evidence of demand before implementing a new SMP remedy. Ofcom has referred to willingness to invest as simply a ‘cross-check’ to apply when weighing its approach to SMP remedies,¹⁴ and has said its approach is to get

¹¹ BCMR Consultation Paper, paragraph 7.71.

¹² PAG demand and implementation report, section 5.

¹³ Access Directive, Recital 7.

¹⁴ PAG demand and implementation report para 5.19 (referring to Ofcom's submissions in *Colt v Ofcom* [2013] CAT 29 at 93).

*“physical remedies to the position where CPs have sufficient information to determine whether or not to use them”.*¹⁵ For example, Ofcom’s observation that demand for PIA was ‘limited’ did not preclude it from imposing it as a passive remedy, on the basis that it should give passive remedies ‘an opportunity’ to work.¹⁶ The benefits of this approach over the longer term – for example, in relation to the LLU remedy where initial uptake was low but the long-term effects have been profound – are well recognised. This is particularly pertinent for consideration of a duct access remedy because, while it requires higher levels of investment and take-up may therefore be more gradual,¹⁷ the overall benefits are likely to be even greater than for dark fibre alone, suggesting very high levels of benefits and hence take-up over time.

- 2.6 Second, Ofcom contends that the potential benefit of enabling CPs to invest in areas underserved by BT *“is likely to be less relevant to leased lines than to residential broadband, because BT currently offers fibre leased lines anywhere in the UK”*.¹⁸ However:

2.6.1 there are important sectors of UK consumers – including, as Ofcom recognises itself, small and medium business customers are “underserved”¹⁹ – they do not have the scale or scope to pay for a dedicated leased line, but equally do not have access to broadband speed and quality sufficient for business needs. Ofcom recognises in its current Strategic Review Digital Communications this as a key issue:

“1.69 ...we are concerned at an apparent lack of retail competition to deliver business-class broadband to SMEs.

4.17 ...there are also high levels of dissatisfaction among small and medium sized enterprises (SMEs) with some aspects of broadband quality of service, with 42% of SME internet users reporting experiencing issues with internet connectivity. Poor service reliability was the biggest problem, with 29% citing it as an issue.

13.37 Many SMEs are more willing to pay for higher quality services than residential consumers. However in many cases they are consuming services provided over the same network as residential consumers, rather than a dedicated business line.”

- 2.6.2 BT may offer leased lines to such customers, but this does not mean that such products are appropriate for their needs. Duct access offers CPs – including members of the PAG – the opportunity to develop innovative solutions to serve these customer segments. The experience of PAG members such as Colt is that duct access in other countries has enabled these types of innovative solutions

¹⁵ PAG demand and implementation report para 5.22 (referring to Ofcom, *Review of the Wholesale Local Access Market* (7 October 2010) (‘2010 WLA Statement’), p 160).

¹⁶ 2010 WLA Statement, pp 101 and 108.

¹⁷ BCMR Consultation Paper, paragraph A23.189.

¹⁸ BCMR Consultation Paper, paragraph 7.71.

¹⁹ Strategic Review Digital Communications, paragraph 13.28.

(such as shared leased line solutions delivered to business parks), to give new options for customer segments that are currently missing out;

- 2.6.3 Ofcom's analysis appears to pay insufficient regard to the different types of benefits of duct access. These include the benefits of CPs having greater flexibility to configure and reconfigure their networks to reflect changes in demand; greater economies of scope (as duct can be repurposed to serve different customers and different routes); better opportunities for cost-effective network expansion; and greater pricing innovation. It is not simply a matter of providing services equivalent to those offered by BT in currently underserved areas. Duct access could unleash significant innovation in the market (for example, the building of new fibre networks with network architectures that differ to BT's, such as fibre rings), which could in turn create compelling new product offerings for consumers even to customers that currently use BT leased lines.²⁰ It is not simply the case that CPs will create products that mimic BT's existing active services; and
- 2.6.4 finally, to the extent Ofcom acknowledges the benefits of duct access, it dismisses them on the basis that:

"the additional benefits of duct access cited by CPs are more relevant to encouraging investment in fibre infrastructure generally, rather than to addressing specific competition problems in the business connectivity market".

However, how this reasoning relates to Ofcom's statutory duties and the tests for imposing SMP conditions is unclear. The benefits of duct access, in markets where BT has SMP, clearly are relevant to determining whether a duct access remedy is proportionate and appropriate, regardless of whether they also have relevance in relation to increasing investment generally.

- 2.7 Accordingly, the PAG remains firmly of the view that a duct access remedy would substantially improve effective competition and could offer substantial benefits to UK consumers.

A duct remedy does not pose significant risks

- 2.8 Ofcom appears to have taken the view that dark fibre better limits the risks of inefficient entry, reduced investment incentives and undesirable distributional impacts.²¹ But Ofcom has reached this conclusion without consideration of different pricing approaches for duct access which would address these risks.
- 2.9 The PAG accepts that passive remedies may lead to BT changing its pattern of cost recovery; such disruption is common when new parts of the value chain are opened to competition. However, there is no evidence that BT's existing pricing reflects Ramsey efficient pricing and deserves to be protected. As has been clearly set out in the PAG costing and pricing of passive remedies report, an appropriate pricing model could

²⁰ BCMR Consultation Paper, paragraph 7.44.

²¹ BCMR Consultation Paper, paragraphs 1.32 and 1.34.

ensure there is no material risk of BT being unable to recover its common costs (and should address any risk of BT over-recovering) or of inefficient investment. Essentially, this is a question of how passive remedies are introduced and not a question of whether any particular passive remedy should be introduced.

- 2.10 Further, these risks will arise in any event due to the EU Civil Infrastructure Directive, under which the PAG understands that duct access will be regulated without up-front terms and with disputes resolved on an *ex post* basis. Ofcom has concluded only that the Directive is not likely to have a material impact on its proposed findings of market power.²² The PAG fully agrees with that conclusion. However, Ofcom does not appear to have considered the consequences of the Directive on the risks of introducing passives (since it makes a duct access remedy effectively inevitable) – and the opportunity that the SMP framework offers to mitigate those risks, prevent duplication and avoid stranding investment by CPs in dark fibre by providing transparent, ex ante pricing. In the PAG’s view, many of the implementation questions raised by Ofcom will need to be dealt with in the short to medium term. Delaying consideration of these issues now will only lead to more difficult implementation challenges down the track. The desire to avoid dealing with these issues in the short term is not an appropriate reason for failing to introduce a duct remedy at this point.

Duct access provides no less efficient use of infrastructure overall than a dark fibre remedy

- 2.11 Third, Ofcom argues that a dark fibre remedy would provide for a more efficient use of infrastructure:

*“to the extent that CPs would use duct access to lay their fibre cables alongside BT’s cables, which could contain substantial capacity of unused fibres”.*²³

- 2.12 However, Ofcom’s duties relate to promoting efficiency generally – not just in relation to use of BT’s unused fibres. A duct access remedy provides its own efficiency advantages, namely, it would avoid the need for CPs to invest in duplicative underground infrastructure such as ducts to the extent that there is substantial capacity in BT’s own ducts and which is usable for the CP’s intended purposes. Such duplication would be the only option for a CP seeking to exploit the advantages that duct access offers (including those of flexibility, adaptability, scale and opportunities for innovation) and which are not available by relying on BT active products or dark fibre. Further, a remedy that included both duct and dark fibre remedy would provide scope for CPs to develop a range of mixed usage cases that would allow them to develop a far wider range of innovative products and network topologies.
- 2.13 Therefore, efficiency considerations do not all lead in the same direction and an assessment needs to be made about which options maximise overall efficiency. However, Ofcom has not sought to perform any quantitative analysis of the comparative efficiency benefits of a combination of duct and dark fibre remedies, over dark fibre alone. Given that the cost of building duct can comprise up to 80% of total deployment costs, the efficiency benefits of avoiding duplication of underground

²² BCMR Consultation Paper, paragraph 1.36.

²³ BCMR Consultation Paper, paragraph 7.71.3.

infrastructure would appear to be significant (particularly in a context where Ofcom has rightly avoided artificial restrictions on how passive remedies may be used, in order to allow CPs to deploy such remedies as part of their overall network design in combination with self-build and active products). Without a quantified assessment, it simply not appropriate for Ofcom to proceed on the basis that a dark fibre remedy alone offers the greatest efficiency benefits.

The appropriate conclusion is that duct and dark fibre are complementary remedies

- 2.14 For these reasons, Ofcom has not undertaken an appropriately thorough analysis to conclude that a dark fibre remedy alone (i.e., without a duct access remedy) is the most appropriate and proportionate approach to introducing passive remedies.
- 2.15 The PAG considers that Ofcom's analysis is insufficient to support its view that the incremental benefits of duct access are minimal, that the risks of a duct access remedy cannot be appropriately managed and that providing only a dark fibre remedy is an approach that is overall more efficient. Consequently, the PAG urges Ofcom to conduct a full and comprehensive analysis and revisit its conclusions.
- 2.16 The PAG's view is that the introduction of duct and dark fibre access as SMP conditions in the business connectivity market is likely to promote competition and investment which will lead to significant benefits for UK businesses and, in turn, consumers.

“Cost plus” is the most appropriate pricing model for dark fibre

- 3.1 In relation to dark fibre, the PAG strongly supports Ofcom’s intention to impose a dark fibre remedy. An appropriately designed and implemented dark fibre remedy could open up communications markets in the UK like never before, resulting in greater competition which drives innovation, higher speed and reach networks and lower prices and better service for consumers. However the PAG has serious reservations about Ofcom’s decision to adopt “active minus” rather than “cost plus” pricing. This is dealt with in the Frontier report, the findings of which are summarised in this section.

Ofcom’s proposal to allow CPs to compete for services of 1Gbit/s and above severely limits the contestability of the market.

- 2.17 By using 1Gbit/s EAD services as a reference product, Ofcom’s proposed dark fibre remedy will only be a commercially viable solution for a small proportion of the market. Ofcom itself recognises that the dark fibre product could not be used to compete for services below 1Gbit/s, which Ofcom forecasts will represent around two-thirds of the market by the end of the charge control period. However, by allowing BT to set the margin based on BT’s LRIC, it is unclear whether dark fibre will be commercially viable even for all 1Gbit/s services. The Frontier report sets out that, based on Ofcom’s estimates, this will mean the remedy may be viable for less than 10% of the market. However, if Ofcom’s estimate is accurate, this is a conservative estimate. In either case, BT’s market power will not be addressed in the 1Gbit/s and below segment of the market which is the largest proportion and where BT’s market power is strongest which means that Ofcom’s dark fibre remedy will fail to have any material impact.
- 2.18 In addition to the economic analysis set out in the Frontier report, the PAG also believes there are legal risks with the approach Ofcom is proposing to adopt, such that it risks failing to promote competition in accordance with Ofcom’s statutory duties and may not be consistent with the principles of competition law. These concerns arise because Ofcom’s proposed active minus pricing might inhibit a competitor which was equally as efficient as BT, and relying on BT dark fibre as an input, from viably competing in the CISBO market as a whole:
- 3.1.1 Because Ofcom uses LRIC instead of ‘LRIC plus’ as the ‘minus’, no contribution to common costs will be deducted in the simple scenario where a CP switches from an active BT product to dark fibre – meaning that the price of dark fibre will make a disproportionate contribution to such costs. This may well have the effect of distorting competition: when an active circuit is ‘lost’ to BT through competition by a rival using dark fibre, because BT does not suffer any reduction in the contribution to its common costs in that scenario. A competitor migrating to dark fibre must make the full contribution to BT’s common costs associated with an active service, as well as a contribution to its own common costs associated with delivering that active service.

- 3.1.2 This, together with the choice of reference product, means that, as noted above, a CP relying on dark fibre is only likely to be able to use dark fibre to compete for a minor part of the CISBO market by the end of the market review period.
- 3.2 This gives rise to potential margin squeeze concerns because:
- 3.2.1 The 'market' determined for the purpose of ex ante SMP regulation will not necessarily be the same as the market for the purposes of determining whether a margin squeeze is occurring – it may be limited to sub-1Gbit/s services. Even assuming the market was the same, there is clear jurisprudence that a margin squeeze may still occur if competitors are only being excluded from part of the market (i.e. on the assumption that they will not seek to compete for lower-margin services²⁴).
- 3.2.2 It seems unlikely that a viable competitor in this market would be able to compete purely on the basis of supplying high-bandwidth dark fibre services. This includes because customers typically issue tenders to supply services across a portfolio of sites, with services provided at different bandwidths depending on the needs of the site. Indeed, we understand that a number of members of the PAG will provide evidence to Ofcom that it is not practicable to enter the market using dark fibre solely competing for active services of 1Gbit/s and above. To supply such a portfolio, CPs would have to invest in both dark fibre and active products. This would deny CPs the same opportunity granted to BT of developing economies of scale.
- 3.2.3 Accordingly, even if it was assumed that the appropriate question is not whether a CP can compete with BT at each bandwidth, the only plausible alternative test is whether a CP with the same pattern of services as BT could compete using dark fibre – and the dark fibre remedy does not allow them to do this.
- 3.3 There are equally concerns with the extent to which the proposed pricing rule is consistent with Ofcom's statutory duties and objectives applying under the CRF. The price squeeze concerns suggest that Ofcom's proposed rule will not enable competition. But an SMP condition must meet a higher objective because unlike competition law (which in the margin squeeze context is narrowly concerned to avoid an abuse of dominance – that is, to enable competition), Ofcom has a broader duty to actually promote competition. Ofcom's statements in the BCMR suggest that Ofcom's pricing remedy was not in fact directed at promoting competition. To enable and, indeed, actively promote competition, Ofcom should move away from a proposed rule that only allows CPs to efficiently deploy dark fibre in a small proportion of the market, and to instead adopt pricing that enables CPs to enjoy the same economies of scale enjoyed by BT.

²⁴ The *Deutsche Telekom* case makes it clear that 'It cannot be supposed that all of [the] competitors compete with the established operator only in a defined region, and want to deal only with customers in the most attractive market segment'.

An active minus charge control will suffer from a lack of transparency

3.4 Ofcom's proposed active minus pricing will allow BT to set the margin between active and passive services. Rather than determining the margin in advance, Ofcom will provide guidance about how BT should calculate the margin based on LRIC and will ensure compliance by assessing disagreements and formal disputes by CPs. This is the wrong approach. Alternative operators will still face considerable uncertainty about the value of LRIC because:

3.4.1 The input cost data will not be available to CPs; and

3.4.2 Ofcom does not provide sufficient guidance on how LRIC would be calculated.

These factors are likely to lead to complex regulatory disputes, deter investment and use. In addition, Ofcom's proposed guidance risks leading to too low a margin and could further limit take-up of dark fibre.

A cost based charge control performs far better than an active minus approach under Ofcom's scoring system and will better meet Ofcom's objectives.

3.5 Ofcom's main argument in favour of its proposed active minus approach is that it enables BT to partially maintain the existing tariff gradient. Ofcom believes that this will lead to improvements in allocative efficiency and infrastructure investment. Ofcom accepts that a cost based approach performs better in terms of productive efficiency and dynamic efficiency but, on balance, prefers an active minus approach.

3.6 In Frontier's view, Ofcom overstates the improvements in allocative efficiency for two reasons:

3.6.1 First, BT will have no incentive to set efficient prices under Ofcom's proposals and will have little ability to set such prices even if it did; and

3.6.2 Secondly, the likely allocative efficiency gains even if wholesale Ethernet prices were set according to Ramsey pricing principles would be small. This is because of the complex relationship between Ethernet wholesale services and the consumption of goods and services by end-users. An active minus approach will maintain the current tariff gradient between 1Gbit/s and 100Mbit/s services. Frontier agrees that a cost based approach will lead to a flatter wholesale pricing structure, but any reduction in demand will be immaterial because demand is likely to be inelastic. Flattening the tariff gradient will allow CPs to offer higher data volumes in downstream markets – increasing retail demand.

3.7 Frontier agrees with Ofcom that a cost based approach will achieve greater gains in productive efficiency than active minus. This is due to increased competition in the active layer, more appropriate build-or-buy signals for potential entrants and less duplication of passive assets. Frontier considers that Ofcom may have overstated its score for the active minus approach because it is based on the assumption that 1Gbit/s services will be contestable. This is unclear. Finally, the increased certainty under a cost-plus approach could further stimulate uptake of dark fibre and lead to greater innovation in the active layer.

- 3.8 Frontier considers that Ofcom has understated the dynamic efficiency benefits of a cost based approach and overstated the benefits of active minus. In the passive layer, Ofcom is concerned that a cost based approach may lead to stranded assets for alternative CPs. However, the distinction between the two approaches is relatively small, as the overall level of revenues available in downstream markets for investors in infrastructure would be similar in both cases. On a forward-looking basis, Frontier considers that a cost based charge control will send appropriate build-or-buy signals and would provide greater certainty than active minus.
- 3.9 Finally, Frontier agrees with Ofcom that an active minus approach results in a greater risk of gaming than cost-plus because it provides BT with a greater opportunity to distort prices. Frontier notes that Ofcom's low score for ease of implementing the cost based approach is based on a bottom-up model. However, Ofcom itself recognises that a top-down approach would be a "relatively mechanical" exercise.²⁵ Frontier proposes that the cost based approach rely on the same model and data used for the charge control for active services, therefore Frontier has given the cost based approach a complete score for ease of implementation. In terms of compatibility with active pricing, by setting cost based and active charge controls on a CPI-X basis, it will be possible to ensure that both sets of prices are consistent in the medium term.

The evidence suggests that a cost based approach will better meet Ofcom's efficiency objectives than active minus, will be far simpler to implement and will provide greater transparency in the long-run for stakeholders.²⁶

- 3.10 Our proposed cost based approach outperforms an active minus approach on every criterion, except allocative efficiency which is comparable.

Criterion	Ofcom's assessment		Frontier's assessment	
	Cost based	Active minus	Cost based	Active minus
Allocative	0	2	0	1
Productive	4	2	4	2
Dynamic – Active	4	2	4	2
Dynamic – Infra	0	2	3	2
Active compatibility	0	2	3	1
Gaming Risk	4	2	4	2
Ease of implementation	2	4	4	3
Total	14	16	22	12

Source: Adapted from the Frontier report, adapted from Table A26.8, BCMR May 2015

- 3.11 The weight of evidence based on Ofcom's own scoring mechanism is that a cost-plus pricing approach to dark fibre is clearly superior.

²⁵ A26.140

²⁶ See: page 5, section 5.

Ofcom's quality of service proposals

- 4.1 The PAG is pleased that Ofcom has imposed more rigorous quality of service ("QoS") requirements on Openreach. As Ofcom recognises, there are long-standing and industry-wide concerns about Openreach's QoS²⁷ which required resolution – and Openreach itself acknowledges that its recent provision performance has not been acceptable.²⁸
- 4.2 While some headline metrics appear to have improved over the last year, these apparent improvements continue to mask underlying issues about Openreach's ability to game the existing regime – including by using "deemed consent" – and believe the real life experience of CPs that service is not improving.²⁹ Ofcom's overall conclusion that provisioning "has been in decline for a significant period of time"³⁰ accurately reflects this experience.
- 4.3 In this context, Ofcom's intention to significantly strengthen the QoS regime is welcome. The strengthening of the regime has two primary elements:
- 4.3.1 first, Ofcom is seeking to address key ways in which Openreach has "gamed" the regime and reduced timing certainty for CPs and their end users – by assessing targets against the initial CDD in most circumstances; and
- 4.3.2 secondly, Ofcom is applying stricter targets that (while conservative) are more representative of the performance that Openreach should achieve at a minimum.
- 4.4 As preliminary but important points:
- 4.4.1 In terms of scope, it is important that all relevant services in the defined market which are provided by Openreach are covered. The PAG is concerned, for example, that services such as OSA are not covered by the minimum standards and KPIs since they are not "Relevant Ethernet Services" (despite the SLG applying to such services). The exclusion of non-Ethernet services seems to be assumed but is never fully explained in the BCMR Consultation Paper. The PAG's view is that, absent compelling reasons to the contrary, all of the QoS regime should apply to all services falling within the relevant market.
- 4.4.2 In terms of transparency, it is unclear to the PAG why:

²⁷ BCMR Consultation Paper, paragraph 13.18.

²⁸ BCMR Consultation Paper, paragraph 13.20.

²⁹ In some cases, where Ofcom's conclusion is that performance has deteriorated somewhat, the degree of that deterioration is also understated. For example, at paragraph 13.51 Ofcom notes that the percentage of orders subject to a SLG payment and the total value of such payments has risen since 2011. This is correct, but in June 2014, Openreach instigated an aggressive "deemed consent" initiative (which in many cases was found by audit to have been inappropriately relied upon) coupled with a period of setting extremely long lead times. SLG payments fell significantly with no parallel improvement in performance.

³⁰ BCMR Consultation Paper, paragraph 13.111.

4.4.2.1 no publication of KPIs for dark fibre services is being proposed;³¹ and

4.4.2.2 only a subset of the KPIs (namely, KPIs (i)-(v)) for Ethernet services is required to be published (and not KPIs (vi)-(xix)).

In relation to Ethernet services, Ofcom explains that this reflects “key service issues identified by end users”. In relation to dark fibre services, is unclear why Ofcom has not applied the transparency requirements. The reasons why Ofcom has proposed to require publication of KPIs – namely, “to provide transparency to end-users and other interested parties as to the performance achieved by Openreach”³² – apply equally to all KPIs and to both active and passive services. The PAG considers that additional transparency will be helpful to CPs to increase confidence in the QoS regime. Given Openreach will need to prepare such data for Ofcom in any event, the PAG believes it would be proportionate and appropriate for Openreach to be required to publish such information.

4.4.3 In terms of reporting and enforcement, the PAG believe that Openreach should be required to subject to a compliance assessment on a quarterly basis, with fines automatically imposed for failure to comply with the service standards. The PAG is concerned that a failure to impose automatic fines will allow Openreach the opportunity to continue to avoid penalties for performance it acknowledges is sub-optimal, and is necessary to ensure that Openreach faces strong incentives to comply.

4.5 The focus of the remaining part of the PAG’s submission is the concerns the PAG has about details of the proposals – including that there remain options for Openreach to circumvent the regime, and that Openreach is being granted too lengthy a transition period to achieve the new standards. A list of more detailed suggestions regarding the drafting of the legal instruments relating to QoS is set out in Annex C. Despite the PAG’s concerns and suggestions, the PAG acknowledges that the proposed standards represent a positive step in addressing Openreach’s poor performance.

A focus on initial delivery dates is key

4.6 A core element of Ofcom’s proposal is the treatment of delivery dates and the measurement of SLAs against the initial customer delivery date (“CDD”) in most circumstances. This is essential to provide CPs with greater certainty about provisioning – given the vast majority of Ethernet orders remain subject to at least one non-agreed change to the CDD³³ and, as Ofcom observes, such changes have become “commonplace rather than exceptional”.³⁴ It is also essential to ensure overall improvements in provisioning timeframes are actually achieved – since CPs are

³¹ BCMR Consultation Paper, Annex 7, Schedule 3.

³² BCMR Consultation Paper, paragraph 13.230.

³³ Ofcom observes that, between 2011 and 2014, 71% of all provide and regrade orders for Ethernet products completed by Openreach, were subject to at least one deemed consent change to their CDD: BCMR Consultation Paper, paragraph 13.45.

³⁴ BCMR Consultation Paper, paragraph 13.44.

concerned that Openreach's use of the "deemed consent" mechanism has allowed Openreach to "game" the quality of service regime and avoid out-payments.³⁵

- 4.7 Ofcom's proposal to assess service levels against *initial* delivery dates (except in relation to customer caused delay³⁶) therefore has the potential to be a game-changer for the industry. There is significant CP concern that Openreach uses "deemed consent" to minimise out-payments including in relation to its own failures.³⁷ PAG members have been subject to "deemed consent", for example, in relation to blocked or congested duct or due to Openreach's own records being incorrect. Clearly it is inappropriate for Openreach to obtain relief for these types of factors, over which CPs have no control and where Openreach should be able to develop policies and procedures to eliminate or minimise the impact of such factors.
- 4.8 Therefore, Ofcom's decision to exclude only "customer caused delays" from the minimum standards should in principle:
- 4.8.1 ensure that Openreach is responsible for significant causes of delay that were previously treated by Openreach as an excuse to change the CDD; and
- 4.8.2 incentivise Openreach to do everything it reasonably can to minimise the extent of delays for delays caused by Openreach or third parties.
- 4.9 As Ofcom recognises, "most of these delays are wholly or partially within Openreach's control".³⁸ Further, in light of the tougher performance standards Ofcom proposes to impose, the PAG strongly endorses the inclusion of "matters beyond our reasonable control" ("MBORCs") within the minimum standards. Any other approach would incentivise Openreach to rely on MBORC declarations in a broader range of circumstances, as a new pathway to avoiding SLG out-payments.
- 4.10 Accordingly, the PAG agrees with Ofcom's approach here and its primary concerns are to ensure that Ofcom's proposals work as intended. In this regard, there are a number of important changes that are necessary to ensure the proposals are effective:
- 4.10.1 first, parts of the BCMR Consultation Paper create confusion by suggesting Openreach is being allowed to continue to use "deemed consent" to circumvent the QoS regime. For example, paragraph 13.118 states that Ofcom declined to specify specific rules as to use of deemed consent from a fear of "unintended consequences" or the potential impact on new industry processes. We understand Ofcom's intention is not to impose rules on the use of "deemed consent" as a contractual mechanism, but that this should not affect Openreach's standards, because the QoS regime (including SLGs) will be based around the initial CDD (except for customer caused delays). It would be helpful if Ofcom could clarify that this is its intention;
- 4.10.2 secondly, while the intent of Ofcom's proposal is laudable, past experience shows that the QoS requirements need to be tightly drafted to ensure they do

³⁵ BCMR Consultation Paper, paragraphs 13.27 and 13.108.

³⁶ BCMR Consultation Paper, paragraphs 13.126 and 13.127.

³⁷ As Ofcom acknowledges: BCMR Consultation Paper, paragraph 13.103.

³⁸ BCMR Consultation Paper, paragraph 13.128.

not provide Openreach with new opportunities for circumvention. For example, it would be helpful for Ofcom to (i) provide more clarity about the definitions of the various deemed consent codes in Table 17.9 of the BCMR Consultation Paper; (ii) include a specific obligation on Openreach to use these codes and apply the associated definitions; (iii) ensure the deemed consent codes for customer caused delay are defined objectively rather than applying in Openreach's reasonable discretion (noting that the exclusion applies to delays "reasonably attributed by Openreach"³⁹ to its customer) to avoid potential abuse;⁴⁰ and (iv) require that Openreach not introduce new deemed consent codes without Ofcom's prior approval. While these are issues of detail, past experience suggests that addressing such issues of detail is essential to ensure that Openreach does not continue to "game" the system, and that the new QoS regime is robust;

- 4.10.3 thirdly, Ofcom recognises the risk that Openreach will be incentivised to deliberately under-promise and then over-deliver (by setting a CDD as late as possible consistent with the minimum standards, and which is not a realistic estimate of how quickly Openreach could provision the service). While the PAG agrees with Ofcom's proposal to require CDDs to broadly follow the distribution curve of mean time to provide, the actual effect of this new metric on Openreach's performance is not yet known. The PAG considers, for example, that inclusion of a new KPI, setting out the proportion of orders that enjoyed early delivery by category, would be helpful to provide transparency about whether the new SLA metrics are working. The purpose of such a KPI would be to identify any such strategic and systematic 'under-promising' by Openreach so that behaviour can be addressed going forward; and
- 4.10.4 fourthly, it would significantly improve the incentive for Openreach to comply if failure to comply with the minimum standards included an automatic sanction. Openreach is far less likely to take the proposed minimum standards seriously if it considers that it will be able to explain away any failure to comply and therefore avoid any substantial sanction. As it stands, the QoS Direction may only have teeth if sufficient contractual SLGs apply to each and every order.

The transition to the minimum service standards is too conservative

- 4.11 The eventual end points proposed by Ofcom appear generally to be sound and to represent a substantial improvement over CPs' experiences today. However, the PAG believes the generous transition period granted to Openreach is in some respects unjustified. In relation to mean time to provide, in particular, a target of 46 days in year 1 represents no improvement at all over current levels for another 12 months, in circumstances where Ofcom has acknowledged that 2014 performance has been unreasonably low. To allow Openreach to continue to provide services based on the

³⁹ BCMR Consultation Paper, paragraph 13.126.

⁴⁰ For example, one PAG member has previously retained an auditor to investigate the application of "deemed consent", which led to findings of consistent abuse of the "deemed consent" process to reduce SLG payments. The use of subjective language that protects Openreach by reference to its own judgements and discretion is likely to assist these types of abuses to occur.

worst performing year on record, and allow Openreach up to the middle of the 2017/18 period to improve back to the performance standards it was already meeting in 2011, is an extremely conservative approach. Rather, the PAG expects the contract to reflect higher ambitions and SLGs paid against failure to higher targets.

- 4.12 In relation to Ofcom's explanation that "we have taken into account the uncertainty in the timescales of Openreach's necessary process and systems developments", the PAG's view is that a number of the 'improvements' being developed by Openreach to meet these new targets are simply common sense and do not warrant an extended transition period. For example, the 'Differentiated Order Journey' referenced in the consultation paper introduces the concept of 'left to right' working (ie, a step in the provisioning process commences as soon as the previous step is completed). This compares to Openreach's pre-existing Ethernet provisioning process, which operates backwards from the CDD (ie, each step takes place a certain number of days out from the CDD, even if preceding steps were completed a significant period beforehand). The new approach is already allowing 'quick wins' in category 1⁴¹ and it is inexplicable that Openreach has not implemented it previously. A number of other service initiatives have or are being introduced by Openreach to, amongst other things, facilitate better contractor management, bring test rodding in-house, and reduce the number of wayleave applications it needs to make. These are in many cases already producing performance improvements.
- 4.13 In this context, it is unclear why Openreach should be permitted a substantial period of time to improve its mean time to provision Ethernet services. This is particularly the case where Ofcom is not challenging Openreach to achieve new levels of performance, but simply to address the decline that has occurred since 2011.

Ofcom's understanding of the provisioning process

- 4.14 The points above reflect the PAG's major concerns regarding the substantive aspects of the QoS regime. As a broader point, in some respects it appears that Ofcom's understanding of Openreach's processes (or its interpretation of what they mean in practice) is not consistent with experiences of the PAG members. While this does not affect the PAG's views regarding the substantive targets and minimum standards, the PAG considers that it would be helpful to outline for Ofcom its views on how the existing Openreach practices differ from Ofcom's understanding.
- 4.15 Accordingly, the PAG notes the following:
- 4.15.1 In relation to the provisioning process generally, Openreach currently have three Ethernet provisioning processes, and Ofcom has indicated that there may now be a fourth. The legacy provisioning process differs significantly from the EMP provisioning process that will be introduced as from 2016. These in turn differ from the Differentiated Order Journey (**DoJ**) process. There is a lack of clarity

⁴¹ Category 1 'quick wins' average 12 days and category 1 overall averages 19 days. As Category 1 makes up around 40% of order volumes, this would allow Openreach to easily achieve a mean time to provide of 46 days with potentially no improvement on Category 2 orders which are the orders that have the widest variance of mean time to provide.

about which process Ofcom is using when determining the appropriate targets and standards to apply in the QoS regime.

4.15.2 The “provisioning journey” described by Ofcom in paragraphs 13.34 onwards is based on the framework in Openreach’s contracts, which differs from actual practice. For example:

- 4.15.2.1 in 2013, Openreach introduced the “Day 19” process which was intended to be utilised for complex orders only and redefined certain milestones in terms of the information provided to CPs at those points. Openreach now apply the “Day 19” process as a de facto policy across all orders;
- 4.15.2.2 Ofcom notes in paragraph 13.39 that the current product lead time for Ethernet is 30 days. However, in practice, all Ethernet lead times are subject to survey which renders the 30 day figure meaningless for all orders except Category 1 'quick win' orders; and
- 4.15.2.3 In relation to the DoJ initiative, Ofcom states that “Openreach is proposing an initial CDD percentage compliance level of 80%.”⁴² In the PAG’s view, this is not correct. The PAG understands that 80% is the metric against which Openreach has agreed not to apply “deemed consent” for Openreach-caused delay. It should be noted, in any event, that the lead times for the DoJ initiative were designed with Openreach and customer caused delay already factored into the mean time to provide. By continuing to apply “deemed consent” within DoJ for customer caused delay (and for some Openreach-caused delays within the final 20%), Openreach is “double dipping” in order to give the impression of improved performance. PAG members have considerable concerns with the DoJ process overall and with the “conclusions” that Openreach may seek to derive from the initiative. The PAG’s view is that – in light of Ofcom’s new proposals regarding QoS – the initiative needs to be re-scoped if it is to continue.

⁴² BCMR Consultation Paper, paragraph 13.150.

Usage cases for passive access remedies

- 5.1 As Ofcom recognises setting the price for dark fibre by reference to 1Gbit/s EAD circuits limits the use of dark fibre remedy by CPs to 1Gbit/s and above uses. As set out in the Frontier report, purchasing dark fibre for use for 1Gbit/s circuits is may not be economically viable given Ofcom's approach to pricing.
- 5.2 As detailed above at paragraph, the PAG has a serious concern that Ofcom is under a misapprehension that may have been a significant contributor to Ofcom's approach in developing the 1Gbit/s active minus pricing proposal. These include a misapprehension that:
- 5.1.1 there are very few (if any) economies of scale required to purchase dark fibre and provide Ethernet services in competition with BT; and
- 5.1.2 if granted, CPs would use dark fibre primarily to supply an "EAD replacement" for services under 1Gbit/s.
- 5.3 The PAG wish to re-emphasise that both of the points referred to above are not consistent with the evidence that has been provided to Ofcom in its response to the BCMR consultations leading up to the BCMR Consultation and Ofcom's own provisional conclusions.
- 5.4 The PAG strongly agrees with Ofcom's provisional conclusions in the BCMR Consultation that the use of passive inputs in the business connectivity market should not be restricted in any way.⁴³
- 5.5 In the May 2015 Consultation, Ofcom recognised that:

*"there is an appetite to use passive remedies for a wide range of applications in the business connectivity market, and not only for mobile and fixed backhaul."*⁴⁴

We strongly support this view. Ofcom went on to state that any restrictions in the use of passive remedies:⁴⁵

"[...] could also significantly reduce the usefulness of a remedy. In particular, any restrictions may not allow CPs to maximise the scale and scope of efficiencies of their investment and as such undermine the business case for using passive remedies. In addition, any usage restrictions would limit the scale of potential to relax downstream regulation given that active remedies are used across a range of applications."

- 5.6 We strongly support Ofcom's view and reiterate our response to Ofcom's passive remedies consultation that:⁴⁶

⁴³ BCMR Consultation Paper, paragraph A23.251.

⁴⁴ BCMR Consultation Paper, paragraph A23.250.

⁴⁵ BCMR Consultation Paper, paragraph A23.251.

⁴⁶ PAG, Response to Ofcom's Business Connectivity Market Review – Preliminary consultation on passive remedies (January 2015) (January Response), page 12.

“The market innovations that will result from investment in passive access cannot be known and identified in advance – and the PAG considers that an attempt to quantify the value of innovation ex ante (or design remedies or usage restrictions to reflect where demand is likely to lie) will inevitably be futile. Passive remedies and the use of market mechanisms to exploit them are a way to discover that value.”

- 5.7 In this section, we remind Ofcom about the different usage cases put forward by CPs in their responses to the Preliminary Consultation.

Usage restrictions risk stifling innovation and restricting market growth

- 5.8 Ofcom is right to conclude that usage restrictions will reduce the usefulness of any passive remedies implemented.
- 5.9 The PAG reiterates its view that the benefits of passive remedies will be greatest if they are not constrained by usage restrictions. This view is well supported by PAG members and other CPs. For example:
- 5.10 Vodafone argued that usage restrictions will “[...] *destroy the opportunity for innovation and destroy the opportunity for market growth and new market development. Product usage restrictions would make the passive access product a substitutional product and bake in the concerns that Ofcom has with passive access.*”⁴⁷
- 5.11 Sky stated that unconstrained remedies will allow CPs to develop a broad suite of services in order to maximise the scale and scope efficiencies of their investment using passive access. Sky went on to contrast the success of LLU, under which there are no constraints placed on downstream usage, and PIA which is constrained.⁴⁸
- 5.12 While focusing on backhaul specifically, MBNL noted that passive remedies “[...] *would increase innovation by allowing CPs to configure and deploy their own equipment to better suit customer’s needs. The availability of better quality products in the market also puts pressure on all operators (including BT Openreach) to innovate, driving greater dynamic efficiency.*”⁴⁹
- 5.13 Finally, TalkTalk emphasised that Ofcom does not need to identify specific innovations but rather that there are potential innovations that could be brought to market earlier by introducing dark fibre. In TalkTalk’s view, “[a]ny *reliance on specific innovations inevitably involve speculating on CPs’ commercial strategies and market outcomes.*”⁵⁰

Backhaul is important but it is not the only application

- 5.14 Across the market, CPs strongly supported the use of dark fibre to service mobile backhaul and fixed broadband backhaul. However, CPs agreed that mobile backhaul and fixed broadband backhaul is only one use of many potential uses. Ofcom’s survey of CP

⁴⁷ Vodafone, January Response, paragraph 62.

⁴⁸ Sky, January Response, pages 9-12.

⁴⁹ MBNL, January Response, pages 1-2.

⁵⁰ TalkTalk, January Response, paragraph 4.7.

responses provided very strong evidence that the range of applications for passive remedies in the business connectivity market is wide and should not be limited.

5.15 In its response to the Preliminary Consultation, Telefónica stated that:⁵¹

“Mobile backhaul and fixed broadband backhaul are the main areas utilising higher bandwidth fibre based access services from BT, however given the broad usage of Openreach infrastructure for all manner of connectivity it could be seen as unfair to limit passive remedies to specific applications.”

5.16 Similarly, Level 3 argued that although mobile backhaul and fixed broadband backhaul are likely to be the applications with significant demand, any passive remedy should not be restricted in its use as many CPs would be very interested in using passive remedies for business connectivity.

5.17 TalkTalk considered that the initial focus of dark fibre would be for both backhaul and access for higher capacity circuits (i.e. 1Gbit/s and 10Gbit/s). However, over time TalkTalk expected that dark fibre will be used more widely. This is because “[t]he innovation, flexibility and electronics cost reduction opportunities are sufficient such that even if Openreach rebalanced its Ethernet prices [...] then using dark fibre would be still attractive over the full range of active products and across all geographies.”⁵²

5.18 Vodafone considered that backhaul is likely to be a large user of passive remedies, but it also thought that many business customers require high bandwidth connectivity (classified as AI).

5.19 Colt argued that the construction of new fibre networks covering broad areas such as city centres and outlying business parks would be the primary application of passive remedies. Once in place, the fibre network can be used for any purpose including business connectivity and backhaul.⁵³

5.20 Finally, Sky stated that “[f]or purchasers to backhaul in particular, passive access will bring more effective competition and deliver solutions that are more efficient in keeping pace with the rapid growth in data consumption.”⁵⁴ Sky considered three specific usage cases: FTTP network deployment; LLU/NGA backhaul; and mixed usage of duct and poles, and of dark fibre.

5.21 While many of the examples provided by CPs have seemingly focussed upon 1Gbit/s, it was not the intention of any PAG member to claim that there is no demand for lower bandwidths. As Ofcom show, most of the market uses bandwidths below 1Gbit/s. The PAG obviously would not wish for a remedy that limited application. All of PAG’s use cases also apply equally for services under 1Gbit/s – the PAG are not about to ignore 70% of the market with their product developments and offerings. The PAG’s emphasis on higher bandwidth has come about due to the clear mismatch between costs and price at higher levels. While there is less of a mismatch of prices for services under

⁵¹ Telefónica, January Response, paragraph 25.

⁵² TalkTalk, January Response, paragraph 7.11.

⁵³ Colt, January Response, page 5.

⁵⁴ Sky, January Response, paragraph 3.2.

1Gbit/s that definitely does not mean that the same efficiency considerations would not apply to dark fibre offered below this level.

- 5.22 Nevertheless CPs have also previously separately identified various use cases for dark fibre for under 1Gbit/s. In its response to the passive remedies consultation GTC identified⁵⁵ that it would use dark fibre “for the purpose of connecting new local networks constructed by OCPs (either from pure housing developments, or from mixed-use developments) to core backhaul networks.”
- 5.23 In its response to the passive remedies consultation TalkTalk⁵⁶ stated that “*The innovation, flexibility and electronics cost reduction opportunities are sufficient that even in Openreach rebalanced its Ethernet prices [...] then using dark fibre would be still attractive over the full range of active products and across all geographies.*”
- 5.24 Telefonica⁵⁷ set out that it considered “*the operational burden of existing EAD 100/1000 products, the use of equivalent equipment and associated differences (including pricing) that ensue. Telefónica believe that a flow through of balanced pricing (focussed on fibre cost) driven by competition and targeted to address BT’s SMP is necessary and favourable for all.*”
- 5.25 Finally, Sky provided its view that the risk of so called “*cherry picking...is small when compared to the wider long term benefits that passive inputs could provide.*”
- 5.26 As the Frontier Economics report makes clear,⁵⁸ Ofcom’s concerns about ‘arbitrage’, i.e. CPs choosing between active and passive services depending on which services implicitly make a lower contribution to fixed and common costs, are misplaced given that a cost based price for dark fibre would ensure that dark fibre and its equivalent active service would have the appropriate level of common costs attributed to them. This would address any ‘arbitrage’ or inefficient entry the regulated price for both active and passive products would reflect cost attribution.

⁵⁵ Paragraph 6.46.

⁵⁶ Paragraphs 7.10-7.11.

⁵⁷ Paragraphs 12, 25.

⁵⁸ Paragraph 4.2.1.

Responses to consultation questions

The PAG provides the following responses to Ofcom's consultation questions, in addition to the responses these questions already provide elsewhere in this response. The PAG has responded only to those questions (and in relation to each question, only to the extent) to which the PAG members as a whole have an agreed position. The fact that this submission does not address a question posed by Ofcom does not indicate that all PAG members are in agreement with Ofcom's proposed approach on that topic, and even where this submission does respond to a question, individual PAG members may have additional views which will be set out in their separate submissions.

Remedies: Approach and Structure

Question 7.1: Do you agree with our approach to assessing what remedies are appropriate to address the competition problems we have identified in the markets in which we propose to find that BT and KCOM have SMP? If not, please explain why, and what alternative approach you consider we should take.

The PAG generally agrees with Ofcom's overall approach to assessing which remedies are appropriate to address the identified competition problems. In particular, we support Ofcom's recognition that it must consider the need to ensure effective competition in the long term. We agree with the factors that Ofcom considers it must take into account – such as the different types of efficiency. However, for the reasons set out in this submission, we do not think the implementation of Ofcom's stated approach has been adequately robust or comprehensive. We believe a detailed review of the evidence that has been submitted is required before Ofcom can properly determine that it is not appropriate to regulate duct access as part of the package of passive remedies.

Question 7.2: Do you agree with our assessment of the benefits that a package of passive and active remedies can offer relative to a package of active remedies only? If not, please explain why, giving your views on our assessment of these benefits, and providing any relevant evidence in support.

Yes. The PAG agrees with Ofcom's conclusion that a package of passive and active remedies offers superior benefits to a package of passive remedies only. The PAG agrees that passive remedies offer greater dynamic efficiencies (in the form of scope for innovation and differentiation); productive efficiency (in the form of lower prices from greater competition in more of the cost stack); and the potential to relax downstream regulation over time. However, passive remedies will take time to implement, require significant investments by CPs and may not be economic in all areas. Therefore, it would be appropriate for active and passive remedies to co-exist for the period of this market review.

However, the PAG disagrees with Ofcom's view that duct offers fewer advantages than dark fibre. Its two reasons for reaching this view are both flawed:

- First, Ofcom contends that there would be less take-up of duct access than of dark fibre. However, it is not for Ofcom to "second guess" the expected level of demand, particularly when a new SMP remedy is being introduced precisely to enable innovation. Ofcom has not previously required evidence of demand, and should not

do so now. LLU is an excellent example of a remedy where initial uptake was low but the long-term effects were profound.

- Second, Ofcom notes that while duct access could encourage investment, the effect is “less relevant to leased lines” because BT offers those lines anywhere in the UK. But this ignores the evidence that significant segments of UK consumers (such as small to medium businesses) are clearly not obtaining services of the quality they need. Duct access offers CPs the opportunity to develop innovative solutions to serve these customers more cost-effectively. Using duct, CPs could develop innovative solutions, which could in turn create compelling new product offerings for consumers even to customers that currently use BT leased lines.⁵⁹ CPs will not simply create products that mimic BT’s existing active services and therefore the geographic reach of BT’s existing services cannot be determinative.

Question 7.3: Do you agree with our assessment of the risks associated with imposing passive remedies? If not, please explain why, giving your views on our assessment of these risks, and providing any relevant evidence in support.

The PAG believes the risks associated with imposing passive remedies will be manageable in practice and are not a good basis on which to decide not to implement a duct access remedy. In relation to the risks identified in Table 7.1 of the BCMR Consultation Paper:

Dynamic efficiency	As Ofcom recognises, whether incentives to invest or returns on existing investment are affected is highly dependent on the design of the passive remedy. This is a question of <u>how</u> passive remedies should be introduced (and in particular the choice of pricing regime) rather than <u>whether</u> they should be introduced.
Allocative efficiency	Rebalancing of prices is inevitable each time a new part of the value chain is regulated. There is no evidence that BT’s existing pricing structure maximises efficiency and deserves Ofcom’s protection. The impact of rebalancing will likely be limited given demand is concentrated on lower bandwidth services.
Productive efficiency	Ofcom recognises that if prices are set appropriately, “it is not clear that the risk of inefficient entry would be significant”. The PAG agrees.
Structure of competition	The PAG agrees that any impact from changes to the structure of the market (eg, consolidation) due to passives is unlikely to be large or detrimental in light of the benefits that passive remedies offer.
Implementation costs	The PAG agrees that implementation costs are likely to be minimal (given dark fibre is merely a cut-down version of an Ethernet leased line, and Openreach already offers a duct access remedy).

Accordingly, the risks Ofcom appear to give most weight to are those of dynamic and allocative efficiency. Importantly, the PAG considers these risks would be more severe without a duct access remedy. Under the EU Civil Infrastructure Directive, duct access will be regulated without up-front terms and with disputes resolved on an *ex post* basis. This means that all of the above risks will materialise – but Ofcom will have to deal with them on a case-by-case basis rather than with up-front terms that offer clear investment signals to all

⁵⁹ BCMR Consultation Paper, paragraph 7.44.

parties. The desire to avoid dealing with these issues in the short term is not an appropriate reason for failing to introduce a duct remedy at this point and will create greater risks down the track.

Elsewhere in the BCMR Consultation Paper, Ofcom also argues that a dark fibre remedy would also provide for more efficient use of infrastructure “to the extent that CPs would use duct access to lay their fibre cables alongside BT’s cables, which could contain substantial capacity of unused fibres”.⁶⁰ However, a duct access remedy provides its own efficiency advantages: namely, it would avoid the need for CPs to invest in duplicative underground infrastructure where there is substantial capacity in BT’s own ducts. Therefore, efficiency considerations do not all lead in the same direction – and a duct access remedy may well be more efficient overall in terms of use of infrastructure, particularly when part of a package including a dark fibre remedy. Ofcom has not sought to perform any quantitative analysis of these efficiency benefits.

Question 7.4: Do you agree that our proposal of a dark fibre remedy priced and designed in the way we have described in this consultation provides the best balance between the benefits and risks that we have identified? If not, please explain why, providing any relevant evidence in support, referencing specific aspects of our proposed remedy design where appropriate, and taking into account any comments you have made in response to questions 7.2 and 7.3.

The PAG agrees with the proposal to introduce a dark fibre remedy designed in the way the consultation provides, but disagrees with the pricing model Ofcom proposes to adopt and disagrees that the most efficient approach is to regulate only dark fibre and not duct access.

In terms of a dark fibre product description, leaving aside the impact of Ofcom’s proposed pricing (which is described below) the PAG believes Ofcom’s proposal should offer significant flexibility for CPs to use dark fibre for innovative purposes. It would, however, be helpful for Ofcom to provide greater clarity on how dark fibre may be used. Ofcom states in certain places that it proposes to require BT to provide dark fibre access to junction boxes and other termination points that are not customer premises. In this sense, the remedy goes beyond what BT currently provides at the active layer. However, elsewhere, Ofcom explains that it is not looking to provide an “access network extension” solution, on the basis that “it is unlikely to be proportionate to impose regulatory requirements on BT which would require it to change the architecture of its physical infrastructure”.⁶¹ It also describes the scope of the remedy as being that CPs “should be able to obtain dark fibre circuits in similar configurations to some of the current range of BT’s active services”.⁶² In order to allow dark fibre to be used for innovative purposes (e.g., to deliver a link within a fibre ring, of which other links may be made up of BT Ethernet products, third party links and/or self-build by the CP) it is important that Ofcom clarifies that “consistency with BT’s network architecture” is not intended to be a substantive limit on the availability of dark fibre.

In relation to dark fibre pricing, the PAG believes Ofcom’s approach is seriously flawed and undermines much of the potential innovation opportunities promised by the product description. The PAG’s views are set out in detail in sections 3 of this submission, and are

⁶⁰ BCMR Consultation Paper, paragraph 7.71.3.

⁶¹ BCMR Consultation Paper, paragraph A25.110 and A25.111.

⁶² BCMR Consultation Paper, paragraph 9.34.

supported by the attached report from Frontier Economics. In summary, the PAG considers that active minus pricing is a clearly inferior pricing model when compared with cost plus pricing, and will not adequately address issues of BT's market power across the active services markets taken as a whole, in particular for the lower bandwidth market segments where BT's market power is strongest. Cost plus pricing is clearly superior at achieving Ofcom's stated objective. See the Frontier Report for more detail.

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Finally, for the reasons above, the PAG believes the most appropriate and efficient approach to passive remedies is to regulate dark fibre and duct access concurrently. Such an approach would enable competition at the lowest possible step in the value chain, promoting dynamic efficiencies (in the form of scope for innovation and differentiation – particularly in the form of new network architectures that would be more difficult to establish without relying on BT duct); productive efficiency (in the form of lower prices from greater competition in more of the cost stack); and the potential to relax downstream regulation over time. It could also represent more efficient use of infrastructure as CPs could use (and reuse) BT's spare duct capacity for different purposes rather than build their own passive housing infrastructure. Ofcom has not shown that it would be impractical to design a pricing model which would send appropriate investment signals to address the risks it perceives. The success of passive remedies in many other countries in Europe and elsewhere demonstrates that such pricing models can be designed and can encourage significant investment.

Question 7.5: Do you agree with our assessment of passive remedies, and our proposal to include dark fibre in the package of remedies we propose to impose on BT? If not, please explain why.

As noted above, the PAG agrees with the proposal to include dark fibre in the package of remedies, but does not agree with the decision not to impose a duct access remedy. See the PAG's response to question 7.4 above.

General remedies for wholesale leased line markets

Question 8.1: Do you agree with the general remedies that we propose for BT in the wholesale TISBO and CISBO markets? If not, what alternative remedies would you propose and why?

The PAGs joint comments are contained in this submission and are limited to passive remedies and quality of service; they address only specific issues on which the PAG have a joint agreed position. Accordingly, this submission does not make any general comments on the remedies Ofcom proposes for the wholesale TISBO and CISBO markets.

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Specific remedy for the CISBO markets – dark fibre access

Question 9.1: Do you agree with our proposals in relation to the dark fibre remedy? If not, what alternative dark fibre remedy would you propose and why?

The PAG generally agrees with Ofcom's proposal in relation to the dark fibre service description. See question 7.4 above for more detail.

Question 9.2: Do you agree with our proposals in relation to the pricing of dark fibre? If not, please explain why, and what alternative approach you consider we should take.

The PAG firmly disagrees with Ofcom's proposed approach to pricing dark fibre, and considers that a 'cost plus' approach would be clearly superior in achieving Ofcom's statutory duties. See the responses to question 7.4 above for more detail.

Specific remedy for the CISBO markets – active remedies

Question 10.1: Do you agree with the specific active remedies that we propose for BT in the wholesale CISBO markets? If not, what alternative active remedies would you propose and why?

The PAGs joint comments are contained in this submission and are limited to passive remedies and quality of service; they address only specific issues on which the PAG have a joint agreed position. Accordingly, this submission does not make any general comments on the remedies Ofcom proposes for the wholesale CISBO markets.

Specific remedy for the TISBO market

Question 11.1: Do you agree with the PPC Direction that we propose for BT in the wholesale TISBO market? If not, what alternative would you propose and why?

The PAG considers that three years notice for withdrawal is required. Therefore assuming closure in 2020 the formal final notice needs to be given in 2017.

Remedies – interconnection and accommodation services

Question 12.1: Do you agree with the interconnection and accommodation remedies that we propose for BT in the wholesale TISBO and CISBO markets? If not, what alternative remedies would you propose and why?

The PAGs joint comments are contained in this submission and are limited to passive remedies and quality of service; they address only specific issues on which the PAG have a joint agreed position. Accordingly, this submission does not make any general comments on the remedies Ofcom proposes for the wholesale TISBO and CISBO markets.

Remedies – quality of service

Question 13.1: Do you agree with our assessment of Openreach's Ethernet provisioning process, how it has been working in practice, the root causes of performance deterioration and process developments? Does our assessment reflect your experiences and understanding of Openreach's wholesale Ethernet provisioning performance? If not, please explain why and provide us with any supporting evidence.

The PAG firmly agrees with Openreach's overall conclusions that Openreach's performance has been unacceptable. As set out above, the PAG's understanding of the provisioning process, how it works in practice and Openreach's process developments differs in a number of key respects to the description provided by Ofcom in the BCMR Consultation Paper. Key examples include that:

1. There are a number of different provisioning processes in play or in development and it is unclear which processes the QoS regime is designed around.
2. The “provisioning journey” described by Ofcom in paragraphs 13.34 onwards is based on the framework in Openreach’s contracts, which differs from actual practice (for example, the “Day 19” process is not used for virtually all orders).
3. Certain details about the DoJ initiative do not accurately reflect the extent to which Ofcom is applying “deemed consent” in the initiative, or the fact that the DoJ lead times already factored in almost all causes of “deemed consent” into the mean times to provision.
4. Many of the process improvements currently being introduced reflect basic business processes that would be expected of any reasonably efficient operator. For example, the DoJ initiative is the first time Openreach has adopted ‘left to right’ working (ie, a step in the provisioning process commences as soon as the previous step is completed, rather than not being commenced until a specified period before the CDD). This means there is considerable scope for significant improvements in performance to be realised quickly and at relatively low cost.

The PAG is not able to definitively comment on the root causes of Openreach’s performance deterioration but considers that it is reasonable to conclude that the factors outlined in paragraph 13.58 of the BCMR Consultation Paper contributed to that deterioration.

Question 13.2: Do you agree with our provisional conclusions on Openreach’s performance? If not, please explain why, and provide us with any further supporting evidence.

The PAG agrees with Ofcom’s provisional finding that there has been a clear deterioration in performance, especially in relation to certainty about delivery timeframes, and the actual length of time for services to be provisioned. Ofcom’s provisional finding is consistent with PAG members’ experiences of the provisioning process. The inclusion of “right when tested” within the overall repair statistics gives a false impression of BT’s performance. When this is removed BT’s performance would be lower than 90% and so does not meet minimum standards. The PAG propose that the minimum standard should not include “right when tested”. Some of the PAG members have responded to this issue in more detail their individual responses.

Question 13.3: Have we accurately captured the reported impact of poor performance? If not, please explain why and provide us with any further supporting evidence.

The PAG agrees that Ofcom has captured many of the costs and impacts of Openreach’s poor performance. PAG members suffer from both direct costs (such as fees payable to their end users) and indirect costs (such as loss of business and general lack of confidence by end users in leased line services) as a result of Openreach’s performance. The PAG agrees that there is likely to be a detrimental effect on downstream competition, hindering the ability of service providers that rely on Openreach Ethernet leased line services to compete.

Question 13.4: Do you agree with our assessment of Openreach’s incentives to deliver acceptable Ethernet provisioning quality of service? If not, please explain why and provide us with any further supporting evidence.

The PAG generally agrees with Ofcom's assessment of Openreach's incentives, subject to the other comments in this submission. In particular, the PAG agrees that the current regime provides certain perverse incentives on Openreach, such as incentives to agree a later initial CDD than might reasonably be achievable, and to use "deemed consent" rather than expend significant efforts to achieve on-time delivery.

Question 13.5: Do you agree that it is appropriate to exclude customer caused delays from the minimum standard performance measures for provision activities? If not, please explain why.

The PAG does not oppose the exclusion of customer-caused delays from the minimum standard performance measures in principle. However, it is essential that Ofcom's legal instruments are tightly drafted to ensure Openreach does not exploit the definition of "customer-caused delay" and apply it in inappropriate circumstances to again circumvent the policy intent of the SLA regime. For example, it would be helpful for Ofcom to (i) provide more clarity about the definitions of the various deemed consent codes in Table 17.9 of the BCMR Consultation Paper; (ii) include a specific obligation on Openreach to use these codes and apply the associated definitions; (iii) ensure the deemed consent codes for customer caused delay are defined objectively rather than applying in Openreach's reasonable discretion (noting that the exclusion applies to delays "reasonably attributed by Openreach" to its customer) to avoid potential abuse; and (iv) require that Openreach not introduce new deemed consent codes without Ofcom's prior approval.

Question 13.6: Do you agree that it is appropriate to include the "non-customer" delays (also including Third Party delay in Openreach data) in the minimum standard performance measures for provision activities? If not, please explain why.

Yes. Ofcom's decision to exclude only "customer caused delays" from the minimum standards should in principle:

- ensure that Openreach is responsible for significant causes of delay that were previously treated by Openreach as an excuse to change the CDD; and
- incentivise Openreach to do everything it reasonably can to minimise the extent of delays for delays caused by Openreach or third parties.

Question 13.7: Do you agree that it is appropriate to include delays due to events covered by MBORC declarations in the minimum standard performance measures for provision and repair activities? If not, please explain why.

Yes. For the reasons set out in response to question 13.6 above, the inclusion of events covered by MBORC declarations will provide appropriate incentives to Openreach to minimise the extent of delays. As Ofcom recognises, "most of these delays are wholly or partially within Openreach's control". Further, in light of the tougher performance standards Ofcom proposes to impose, any approach that excluded events covered by a MBORC would incentivise Openreach to rely on MBORC declarations in a broader range of circumstances, as a new pathway to avoiding SLG out-payments.

Question 13.8: Do you agree that it is appropriate to apply the minimum standards nationally? If not, please explain why.

The PAG does not oppose the application of minimum standards on a national basis but agrees with Ofcom that it is desirable to have transparency about any variation in service standards across regions. Accordingly, the PAG supports the reporting of KPIs on a regional basis.

Question 13.9: Do you agree with our proposals regarding the application of minimum standards over the three year period of this review? If not, please set out your reasons and alternative proposals.

No. The PAG considers that the “glide path” to the new targets is inappropriately conservative in a number of cases.

In relation to mean time to provide, in particular, a target of 46 days in year 1 represents no improvement at all over current levels for another 12 months. It allows Openreach to continue to provide services based on the worst performing year, and would not require it to revert to its previous performance until the middle of the 2017/18 period.

As noted above in response to question 13.1, Openreach is only now implementing basic business improvement practices that would be expected of any reasonably efficient business. It is to be expected that Openreach can significantly improve performance relatively quickly and at low cost, and the target set by Ofcom is in any event based on performance that Openreach has achieved in the recent past. Accordingly, a conservative transition period is not appropriate.

Question 13.10: Do you agree that it is appropriate to use a combination of initial CDD and TTP as the basis around which to set the new delivery date certainty minimum standards? Please provide reasoning for your answer. If you do not agree, please also give your proposed alternative including reasoning

Yes. The PAG considers that Ofcom’s approach appears to be an appropriate mechanism to address the risk that Openreach’s initial CDDs will become meaningless (because Openreach will be incentivised to provide initial CDDs that enable systematic early delivery) and will not provide industry with the certainty it needs.

While the PAG agrees with Ofcom’s proposal to require CDDs to broadly follow the distribution curve of mean time to provide, the actual effect of this new metric on Openreach’s performance is not yet known. The PAG considers that inclusion of a new KPI, setting out the proportion of orders that enjoyed early delivery by category, would be helpful to provide transparency about whether the new SLA metrics are working. The purpose of such KPI would be to identify any such strategic and systematic ‘under-promising’ by Openreach so that behaviour can be addressed going forward.

Question 13.11: Do you agree that it is appropriate to set the metrics for the delivery time certainty minimum standard to the initial value of 80% and final value of 90%? Please provide reasoning for your answer. If you do not agree, please also give your proposed alternative.

Yes. As Ofcom recognises, delivery date certainty is highly valued by CPs and their end customers. This metric is therefore one of the industry’s core concerns but one that is balanced with reasonable provisioning timescales. The PAG welcomes Ofcom’s proposed

metrics, and considers that those metrics reflect the extent to which industry values date certainty; should incentivise Openreach to develop its processes in ways that improve certainty; but provides appropriate recognition that exceptional circumstances may, in rare cases, prevent Openreach from delivering an order by the initial CDD.

Question 13.12: Do you agree that it is appropriate to apply limits to mean TTP and upper (97%) and lower (40%) percentiles as the basis for the lead time minimum standard? Please provide reasoning for your answer. If you do not agree, please also give your proposed alternative.

Yes. The PAG generally agrees with Ofcom's proposal to apply limits to mean, upper and lower percentiles as the basis of the lead time minimum standards.

Question 13.13: Do you agree that it is appropriate to set the upper percentile initial and final values to 159 and 118 working days and the lower percentile initial and final values to 30 and 29 working days for the lead time minimum standard to the values? Please provide reasoning for your answer. If you do not agree, please also give your proposed alternative.

Yes. The PAG generally agrees with Ofcom's proposed upper and lower percentile initial and final values.

Question 13.14: Do you agree that it is appropriate to set the repair time minimum standard to 94%? Please provide reasoning for your answer. If you do not agree, please also give your proposed alternative.

No. This simply reflects Ofcom's current performance. The PAG would emphasise that Ofcom's figure should be treated by Openreach as the bare minimum standard of performance, and that the contractual standards that Openreach should be able to agree with its wholesale customers would be expected to be significantly more ambitious. In particular, as set out above, the inclusion of "right when tested" within the overall repair statistics gives a misleadingly positive view of Openreach's current performance, and wholesale customers will expect these concerns to be addressed in contractual negotiations.

Question 13.15: Do you agree with our proposal to set a new SMP services condition which provides for Ofcom to direct BT to comply with all such quality of service requirements in relation to network access provided by BT pursuant to our proposed general and specific network access requirements? If not, please explain why.

Yes. The PAG agrees that there needs to be a condition requiring BT to comply with quality of service requirements. PAG members' experience as customers of Openreach's Ethernet services demonstrates that Openreach will identify and exploit any ambiguities or gaps in the SLA regime. Furthermore, given the significant changes to the SLA regime Ofcom is proposing, it is possible that Ofcom's changes to the SLA regime (while they are welcomed by the PAG and should lead to more appropriate incentives on Openreach to improve its performance) may introduce unintended consequences or may not turn out to be as effective as hoped. Accordingly, the PAG considers it essential that the SMP conditions provide a mechanism for Ofcom to respond to such issues by varying the quality of service requirements if Openreach is not responding appropriately.

Question 13.16: Do you agree that it is appropriate to assess compliance with the proposed minimum standards on an annual basis? If not, please explain why.

No. The PAG considers assessment should be quarterly and fines should then be automatically applied rather than investigation driven. This ensures that BT has the appropriate resources year round.

Question 13.17: Do you agree with our proposals to direct BT to comply with minimum performance standards for setting initial contractual delivery dates, delivery against initial contractual delivery dates, fault repair performance and overall mean time to provide? If not, please explain why, and set out your proposed alternative.

Yes. The PAG broadly agrees with Ofcom's proposed approach, except in relation to the proposed improvements set out elsewhere in this submission.

Question 13.18: Do you agree with our proposals to direct BT to provide the KPIs we have specified? If not, please explain why, and set out your proposed alternative.

Since the effectiveness of Ofcom's proposal to require CDDs to broadly follow the distribution curve of mean time to provide is not yet known, inclusion of a new KPI, setting out the proportion of orders that enjoyed early delivery by category, would be helpful to provide transparency about whether the new SLA metrics are working. The purpose of such KPI would be to identify any such strategic and systematic 'under-promising' by Openreach so that behaviour can be addressed going forward.

Second, it is unclear to the PAG why:

- no publication of KPIs for dark fibre services is being proposed; and
- only a subset of the KPIs (namely, KPIs (i)-(v)) for Ethernet services is required to be published (and not KPIs (vi)-(xix)).

The reasons why Ofcom has proposed to require publication of some KPIs – namely, “to provide transparency to end-users and other interested parties as to the performance achieved by Openreach” – apply equally to all KPIs and to both active and passive services. The PAG considers that additional transparency will be helpful to CPs to increase confidence in the QoS regime.

Question 13.19: Do you agree with our proposals to maintain the existing SLG Direction? If not, please explain why, and set out your proposed alternative.

The PAG agrees with the maintenance of the existing SLG Direction.

Question 13.20: Do you agree with our proposals regarding the conduct of, and principles and criteria to be applied from now on, to contractual negotiations concerning SLAs/SLGs for the provision of Ethernet services? If not, please explain why, and set out your proposed alternative.

The PAG agrees that Ofcom's proposed timeframe of 6 months for industry to reach an agreement on implementing the SLG framework is reasonable. While the PAG notes that the OTA process has already begun, the PAG considers that 6 months is a reasonable timeframe to impose on a forward looking basis.

Annex A: Ofcom's proposals on regulated dark fibre – Frontier economics

(Attached)

Annex B: Detailed drafting comments in relation to QoS

The following comprise the PAG's detailed drafting comments relating to Annex 7 of the BCMR Consultation Paper.

Provision	Comment
Part 1, section 12, definition of "Relevant Regions"	The PAG's view is that Scotland and Wales should be identified as separate regions, so that Openreach is required to report separately on its performance in those areas.
Part 1, section 12, definition of "Third Party"	Alternative terminology, such as the term "Customer", would be more consistent with "plain English" drafting.
Schedule 1, para 1.2.1.3, "average Time to Provide"	A more specific definition of "average" should be provided to ensure it is clear how it is to be calculated (for example, is it "mean"?)
Schedule 2, para 1	Schedule 2 refers to monthly KPIs but Schedule 1 provides for annual performance targets. It will not necessarily be straightforward to correlate the two. Accordingly, Openreach should be required to publish a rolling average for each Relevant Year.
Schedule 4, para 1(d)	The references to Backhaul Extension Services, Wholesale Extension Services and Wholesale End-to- End Segments are references to legacy products. The terminology should be updated, by referring to Ethernet Services generally.