Response to Ofcom's Business Connectivity Market Review – Preliminary consultation on passive remedies

Joint submission by Colt Technology Services, EE, Sky, TalkTalk, Three UK and Vodafone ('Passive Access Group')

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Introduction

- 1. The Passive Access Group ('PAG') is a group of the UK's major alternative communications providers. As fierce competitors, each of us has our own, individual ambitions and plans to secure the benefits that passive access will bring to our customers and help us win new ones. But we have come together to speak with one voice to emphasise the clear and unequivocal case that we see for introducing passive access in business connectivity markets. It is the next logical step to promoting competition in UK telecoms markets.
- 2. We believe that passive access would benefit competition in business connectivity markets, such as for backhaul for mobile and broadband networks. The introduction of both dark fibre and duct access¹ will bring substantial benefits to UK communications markets: greater opportunities for innovation and product differentiation; in turn stimulating cost efficiencies and lowering prices; and allowing scope for future deregulation of active markets. Together, these benefits will enable the development of a market that is more responsive to the communications needs of UK business and consumers. Achieving such outcomes correlates entirely with Ofcom's statutory duties and objectives.
- 3. The PAG therefore welcomes Ofcom's preliminary consultation on passive remedies ('Consultation Paper') and is pleased to respond. In order to assist Ofcom's work we have commissioned the following specialist input to inform the debate on some key aspects of passive aspects:
 - a) a report by Towerhouse LLP on the demand and regulatory implementation issues identified by Ofcom (the 'Towerhouse Report'). The Towerhouse Report is set out in Annex A; and
 - b) a report by Frontier Economics on the economic issues identified by Ofcom (the 'Frontier Report'). The Frontier Report is set out in Annex B.
- 4. The rest of our response is structured as follows:
 - a) Background;
 - b) Summary of the PAG's views;
 - c) Answers to Ofcom's consultation questions;
 - d) Annex A Report by Towerhouse LLP; and
 - e) Annex B Report by Frontier Economics.

¹ In this submission we use the term 'duct' to refer to all the civil infrastructure used to support the distribution of telecommunications cables including duct, poles, footway boxes and chambers.

Background to this paper

- 5. Ofcom's established approach, established in the Telecommunications Strategic Review, is to provide access to BT's infrastructure at the deepest levels where competition will be effective and sustainable – exposing more activities and assets to competition in order to promote greater efficiency and enable innovation and hence differentiation. This innovation and differentiation provides a wider range of choices to customers, which in turn can stoke further demand for services, creating further appetite for investment, and fuelling the virtuous circle of competition.
- 6. This approach has created substantial long term benefits for UK residential customers. For example, in the wholesale local access market, Ofcom's perseverance in developing passive remedies such as LLU ultimately enabled substantial deregulation at the active layer, thereby stimulating competition.
- 7. But the experience for UK businesses, and with respect to backhaul, has lagged.² This growing gap in the degree of competition in residential and business markets is increasingly likely to have consequential impacts for the economy as a whole. The PAG views the introduction of passive remedies in business connectivity markets as the logical next step to unlock a new competitive landscape in communications markets in the UK.
- 8. The research commissioned by the PAG provides concrete evidence supporting our view that there are no material barriers to implementing passive remedies. Indeed, the experience of implementing those remedies elsewhere in Europe (including in France, Portugal, the Netherlands, and in Stockholm³) shows that, although passive remedies inevitably require some regulatory oversight, they open the door to competition at a deeper level of infrastructure than active remedies and allow the future prospect of downstream deregulation. The regulatory work and policy choices required are not profoundly different to the challenges Ofcom has already faced in introducing new SMP remedies across a range of markets, including LLU and passive infrastructure access in the wholesale local access market ('PIA'). Facing those issues in the past has led to successes such as the widespread adoption of LLU as a passive remedy in the wholesale local access market.
- 9. The members of the PAG agree with the overall conclusions in the Towerhouse and Frontier Reports.
- 10. Given that Ofcom is at an early stage in the business connectivity review, we anticipate the reports may help Ofcom develop and inform its assessment of different packages of SMP remedies that could include duct and/or dark fibre access.

² See SPC Network, *30 Years After Privatisation: Is the Telecoms Market Working?* (2014) and Federation of Small Businesses, *The Fourth Utility: Delivering universal broadband connectivity for small businesses across the UK* (July 2014).

³ See, for example, paragraph 5.31 of the Towerhouse Report.

Summary

- 11. <u>Passive remedies deliver proven benefits in the long term.</u> These benefits include lower prices, greater efficiency, increased scope for innovation and the potential for future downstream deregulation. Overseas experience (for example, in France, Portugal, the Netherlands, and in Stockholm) show that, although passive access can require some regulatory oversight, passive access opens the door to deeper levels of competition and improves the responsiveness of the communications sector to the needs of business customers. In comparison, there is increasing evidence that the UK market for business connectivity is failing to meet the needs of many business customers. See section 2 of the Towerhouse Report and section 2 of the Frontier Report.
- 12. <u>These benefits will be maximised if duct and dark fibre are both available as</u> <u>complementary remedies</u>. Both remedies have distinct use cases and economic considerations. The greatest efficiencies are created where CPs can choose between them and concurrent regulation of both remedies is consistent with the common regulatory framework. See paragraphs 5.2–5.12 of the Towerhouse Report.
- 13. <u>Take-up of passive remedies is likely to be substantial but does not need to be fully</u> <u>quantified in advance.</u> Rightly, Ofcom has not previously required evidence of demand before deciding to implement a new SMP remedy. Demand can arise from experimentation and innovation which is facilitated by passive remedies. So while some evidence of future demand may be relevant to Ofcom's impact assessment, it should not be a requirement before passive remedies can be adopted. It is also important that Ofcom does not 'second guess' the uses for which passive remedies could be put – for example, by disregarding duct access on the belief that dark fibre is sufficient for CPs' needs. See paragraphs 5.13–5.32 of the Towerhouse Report.
- 14. The benefits of passive remedies will be greatest if they are not constrained by usage restrictions. CPs will not use passive remedies solely to replicate existing active services offered by BT the most exciting opportunity offered by passive remedies is to develop differentiated services that are designed to meet the varying needs of heterogeneous business customers. Usage-specific restrictions put this opportunity at risk, by limiting CPs to delivering services that fall within the existing market structure. See paragraphs 5.33–5.56 of the Towerhouse Report.
- 15. The implementation challenges for passive remedies are similar to those Ofcom has successfully resolved in other contexts, and have been addressed by regulators overseas. The implementation challenges Ofcom has identified reflect issues that are similar to (and no more difficult to resolve than) those that Ofcom has dealt with successfully when introducing new SMP conditions in the past. Overseas examples show that they can also be dealt with in a straightforward manner in the context of implementing passive remedies. See section 6 of the Towerhouse Report.
- 16. <u>Price rebalancing does not militate against implementation of passive remedies.</u> The PAG accepts that passive remedies may lead to BT changing its pattern of cost recovery. This type of disruption is common when new parts of the value chain are opened to competition. There is no evidence that BT's existing pricing reflects efficient price

discrimination and should be perpetuated. Instead, it is likely to be efficient for BT to alter the balance of prices in the same way that it has in previous regulatory phases. Any increase in prices will be spread across a large number of customers – and must be balanced against potential price reductions for other services, and the benefits of better quality and more efficient services to businesses: benefits that should ultimately be passed through to all UK consumers, including those customers that may pay higher prices in the short term. See section 4.1 of the Frontier Report.

- 17. <u>Suitable pricing models can be designed without generating significant difficulties</u>. 'Cost plus' pricing offers a straightforward way to implement a dark fibre remedy with minimal economic risk to BT in terms of cost recovery. Duct access could require more complex pricing, but the greater innovation benefits for CPs (over and above dark fibre) are likely to justify any complexity. In either case, an appropriate pricing model could 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. See section 4.3 of the Frontier Report.
- Duct access and dark fibre offer significant benefits both on a standalone basis and taken together. The correct approach is that the costs and benefits of the two solutions should be assessed as follows:
 - a) The costs and benefits of duct access alone;
 - b) The costs and benefits of dark fibre alone; and
 - c) The costs and benefits of both duct access and dark fibre together.

Responses to the consultation questions

Question 1: Do you agree with our preliminary framework for considering the case for passive remedies?

The PAG generally agrees with the preliminary framework outlined by Ofcom, in particular its emphasis on assessing different combinations of remedies and taking a long-term view of the benefits of passive remedies.

- Of com should focus on facilitating competition in upstream markets for infrastructure, given the well-understood benefits this will have in downstream markets.
- Regulating at multiple points in the value chain may be appropriate. Passive remedies enable future deregulation at the active layer and therefore lower the regulatory burden in the long term.
- Ofcom should take into account the desirability of technology neutral regulation and the promotion of investment and innovation. Passive remedies should be designed as a platform for experimentation and innovation not limited to specific uses.
- The EU Civil Infrastructure Directive does not address the need for passive remedies and it is unsuitable for the purpose of addressing an operator's SMP.
- Further assessment of the potential issues identified by Ofcom is needed.

The PAG generally agrees with the primary factors Ofcom has suggested it will take into account when considering the case for passive remedies. In particular, as was emphasised in the Colt appeal,⁴ the PAG supports Ofcom's intention to consider and assess various packages of remedies – including various combinations of <u>both</u> active and passive remedies. The PAG also supports Ofcom's intention to take a long-term view of passive remedies. While the PAG expects there to be significant demand for appropriately scoped passive remedies, Ofcom should be mindful of the experience with LLU, where (despite the latent demand for the product and its success overseas) BT was able to limit its usefulness as a remedy for a significant period. Following significant regulatory and industry attention, LLU has now become the predominant means of delivering competitive broadband services across the UK. The long-term view of the implementation challenges and treated passive remedies in the wholesale local access market as 'too hard' due to BT's obstructionism.

However, there are a number of issues the PAG does wish to raise with respect to Ofcom's proposed framework for considering passive remedies.

Competition should be facilitated in upstream markets

First, Ofcom should have due regard to the desirability of facilitating competition in upstream markets in order to deliver innovation and competition in retail markets. This is consistent with Ofcom's principal duty of furthering the interests of consumers 'where appropriate by promoting competition',⁵ and Ofcom's declared strategy in the *Strategic Review of Telecommunications*, where the ability of infrastructure-based competition to deliver product differentiation and innovation led Ofcom to propose promoting 'competition at the deepest

⁴ See COLT v Ofcom [2013] CAT 29.

⁵ Communications Act 2003 s 3(1)(b).

levels of infrastructure where it will be effective and sustainable'.⁶ The PAG firmly supports this strategy. The PAG believes that competition based on passive remedies would be effective and sustainable and believes that CPs' current reliance on BT's active products has hindered the market's ability to develop and innovate.

Accordingly, the PAG considers it important that Ofcom gives due regard to the importance of facilitating competition in upstream wholesale markets – including for leased lines and access to infrastructure – in order to ensure that the retail markets are as effectively competitive and innovative as possible. This emphasis on the need to address competition at deeper levels in the value chain is reflected in article 12 of the Access Directive, which expressly refers to the need for regulators to have regard to 'the need to safeguard competition in the long term, with particular attention to economically efficient infrastructure-based competition'.

Regulating at multiple points in the value chain may be appropriate

Ofcom has suggested that, 'over the longer term, it may not be desirable to regulate at multiple points in the value chain indefinitely'⁷ and that it may wish to focus on a single sustainable remedy. The PAG believes that passive remedies may over time create the potential for future upstream deregulation (in areas where take-up is strong), and their introduction is therefore more consistent with the objective of reducing regulation in the long term.

However, to the extent it might be necessary to for passive and active remedies (or different types of passive remedy) to co-exist in particular areas, this is consistent with Ofcom's approach to remedies in other markets. For example, in the wholesale local access market, Ofcom has imposed both LLU as a passive remedy alongside active remedies in some areas. While in other areas, Ofcom has considered competition to be sufficiently effective that active remedies can be removed, there is little realistic prospect that active remedies could ever be lifted on a national basis. However, if Ofcom had taken the view that it should not impose passive remedies on the basis that there was little prospect of ever withdrawing active remedies on a national basis, then the UK would have been denied the well-documented benefits that LLU has delivered in terms of infrastructure-based competition. Similarly, if Ofcom used this as a reason not to impose passive remedies in the business connectivity market, then the current failings of the UK business connectivity market (documented in section 2 of the Towerhouse Report), such as lack of choice and flexibility offered by BT's active products, would be perpetuated. In the jurisdictions where passive remedies have been a success, regulators have accepted that there would be the need for regulation at multiple layers in the short to medium term.

Further, a reluctance to regulate at multiple points in the value chain seems to be in tension with the 'ladder of investment' theory which has been adopted by BEREC. For example, BEREC has expressly acknowledged that 'regulated access at different rungs of the ladder promotes both competition and investment.⁸The PAG considers that Ofcom should be focussed on taking a long-term view towards removing downstream regulation to the greatest extent

⁶ Ofcom's Strategic Review of Telecommunications (22 March 2005) p 7.

⁷ Consultation Paper p 15.

⁸ BEREC, BEREC Common Position on Best Practice in Remedies Imposed as a Consequence of a Position of Significant Market Power in the Relevant Markets for Wholesale Leased Lines (26 November 2012) p 1.

possible *in any one geographic area*. The PAG considers that this approach would best reconcile the principles of reducing the burden of regulation where possible while promoting sustainable competition, rather than the more simplistic approach that would reduce Ofcom's workload by taking a 'one size fits all' approach.

Technological neutrality

The PAG believes Ofcom's proposed framework should also take into account the need for regulation to be (as far as possible) technologically neutral.

Technological neutrality is deeply embedded in the common regulatory framework. Article 8(1) of the Framework Directive provides that 'Member States shall take the utmost account of the desirability of making regulations technologically neutral and shall ensure that, in carrying out the regulatory tasks specified in this Directive and the Specific Directives, in particular those designed to ensure effective competition, national regulatory authorities do likewise'. Section 4(6) of the Communications Act requires Ofcom to act in accordance with the requirement that it 'take account of the desirability of ... carrying out [its] functions in a manner which, so far as practicable, does not favour (a) one form of electronic communications network, electronic communications service or associated facility; or (b) one means of providing or making available such a network, service or facility, over another'.

It is widely accepted that a robust stance towards technological neutrality is important to allow us to benefit to the fullest possible extent from convergence between different types of communications networks and services. It is also widely accepted that technological neutrality is an important pre-requisite for markets to innovate, to identify the services that are most efficient and to develop in a manner most responsive to customer needs. This is relevant in the context of passive remedies because if those remedies are technologically specific – for example, allowing CPs to use duct access only to supply services that fall within narrow product categories where BT has been found to have SMP – then passive remedies will be less able to provide a platform for experimentation and innovation, and there are liable to be continual disputes about whether innovative products fall within or outside the scope of the product categories as defined by Ofcom. Inappropriate restrictions would confine competition to existing markets defined by Ofcom, rather than allowing the opportunities for disruption and reinvention that would be expected in a fully competitive environment, and may cause harm to consumers if innovative products are forced to be withdrawn after their introduction.

Promotion of investment and innovation

The need for regulation to promote investment and innovation is related to the above, and should also be a primary consideration for Ofcom. Indeed, section 3(4)(d) of the Communications act 2003 *requires* that Ofcom have regard, where it considers it relevant, to 'the desirability of encouraging investment and innovation in relevant markets'. The Towerhouse Report (section 2) explains that passive remedies will offer CPs the ability to compete on a more level playing field with BT for business customers, and that they offer the potential to unlock significant new innovation in business connectivity markets – for example, by improving the business case for supplying small to medium business customers that are not well served by today's market structure. This has been the experience in other European countries where passive remedies have been introduced or where access to passive infrastructure has been made available on a commercial basis. The PAG is committed to ensuring that the introduction of technologically neutral passive remedies will be a success in

the UK – driving a new phase of competitive development in infrastructure with benefits for all UK consumers.

The EU Civil Infrastructure Directive does not address the need for passive remedies

The EU Civil Infrastructure Directive will not adequately address the need for passive remedies and provides no justification for Ofcom to ignore the need for a duct access SMP remedy. It is not intended to replace the need for specific remedies for SMP operators (and is, by its own terms, intended to be 'without prejudice' to the operation of the common regulatory framework). The type of access regime set out in the EU Civil Directive (with its *ex post* dispute resolution regime) has been proven to be insufficient to address SMP issues (which require *ex ante* regulation) – as reflected in a number of countries, including Portugal, where 'symmetrical' access obligations have been supplemented with concurrent SMP conditions. The PAG also notes that:

- there is not yet any certainty about when and how the Directive will be transposed and when it will be effective domestically;
- the Directive does not address access to dark fibre and therefore it will not provide for any improvement to those areas or customers where it would not be economical to invest in competing active networks using a duct access remedy; and
- the Directive does not provide basic protections that would be expected in an SMP remedy, such as a requirement for non-discrimination.

Further, to the extent that Ofcom is concerned about managing the implementation and pricing challenges of passive remedies and how they interact with active SMP remedies, relying solely on the Directive would appear to heighten these risks. This would reduce Ofcom's ability to ensure duct access becomes available in a way that does not undermine existing SMP remedies, for example by pricing considerations being determined in disputes and without regard to the 'cost stack' of SMP remedies. It seems likely that a more coherent approach and implementation of passive remedies would be achieved if such remedies were regulated under the SMP framework rather than solely under a bespoke regime.

These issues are explored in more detail in paragraphs 5.57–5.69 of the Towerhouse Report.

Further assessment of the potential issues identified by Ofcom is needed

As Ofcom observes in the Consultation Paper, its consideration of passive remedies is likely to require weighing of competing interests – such as possible trade-offs between productive and allocative efficiency, between dynamic efficiency and the distributional impacts of price rebalancing, and between short term disruption and longer term benefits. It is certainly right for Ofcom to recognise at this preliminary point that there may be competing considerations. However, more detailed analysis and quantification will be required over the course of the business connectivity market review to: (i) assess whether there is, in fact, a trade-off to be made; and (ii) determine how to balance the benefits and disadvantages of any trade-off. At this preliminary point in the BCMR, the PAG does not consider that the answer to either question can be determined. For example, in relation to the question of distributional impacts:

 there has not yet been a rigorous attempt to determine the level of risk that introduction of passive remedies will, in fact, impact the prices of a broader range of BT services or to quantify the scale of any potential price increases. In fact, much depends on the pricing methodology for access to duct and/or dark fibre adopted by Ofcom – and the pricing model could be developed in such a way that BT would continue to recover a similar proportion of its common costs from fibre-based services; and

a detailed assessment would be needed of the likely overall effects of introducing passive remedies on consumers. For example, the introduction of competition at a deeper level in the value chain would enable greater innovation and efficiencies to be found, including economies of scope between business and residential products and the potential for "trickle down" of business grade technologies to residential and SME customers. This would lead to lower prices or higher quality for services (including downstream services that rely on business connectivity as an input), with positive flow-on effects in the residential market. There are likely to be even greater indirect benefits from improved business connectivity services, as they enable UK businesses to grow – leading to higher employment and improved business efficiency.

We look forward to Ofcom including a more detailed analysis in the next round of consultation of how it envisages resolving any conflicts between its duties and relevant considerations, so that industry has clear guidance on how Ofcom is approaching this balancing exercise, and so that there is an opportunity for Ofcom's assessment to be scrutinised and subject to industry comment.

Question 2: Do you agree with our preliminary views on the potential benefits of passive remedies? Please provide evidence to support your view.

The PAG agrees with the potential benefits of passive remedies that Ofcom has identified, namely:

- dynamic efficiency in the form of scope for innovation and improvements in service quality;
- productive efficiency in the form of lower prices from greater competition in the cost stack; and
- the potential to relax downstream regulation over time.

In relation to dynamic and productive efficiency, see paragraph 2.22 of the Towerhouse Report and sections 2.1 and 2.2 of the Frontier Report. As noted in paragraph 5.31(c) of the Towerhouse Report, these benefits are clearly evident in European states where passive access is widely available (whether on a regulated or a commercial basis).

In relation to the potential to relax downstream regulation, the PAG agrees that this may well be the eventual outcome of introducing passive remedies and is a potential benefit, allowing for more stable and predictable regulation in the long run. See section 2.3 of the Frontier Report.

Question 3: Do you agree with our preliminary views on the impacts and risks of passive remedies? Please provide evidence to support your view.

- The PAG is confident that the abstract risks of passive remedies outlined by Ofcom in the Consultation Paper will be manageable in practice, given the experience of other countries where passive remedies have been available for many years.
- The dynamic efficiency risks are not new and have been raised each time Ofcom was considering introducing a new remedy. These risks are a question of <u>how</u> passive remedies are introduced not whether they should be introduced.

- There is no evidence that BT's tariff gradients maximise allocative efficiency (as opposed maximising BT's market power over unregulated services), and there is therefore no reason for Ofcom to withhold passive remedies in order to preserve BT's current pricing decisions.
- In practice, the impact of price rebalancing would likely be limited, given demand is already concentrated on lower bandwidth services (so any price increase should be small); an appropriate pricing regime would allow BT to recovery a similar proportion of its costs from fibre-based services (minimising the impact on other services).

See section 5 of the Towerhouse Report in relation to implementation risks and sections 3.2–3.4 of the Frontier Report in relation to efficiency issues.

Question 4: What are your views about the potential impact of passive remedies on the pattern of common cost recovery and the associated distributional impacts?

The PAG acknowledges that passive remedies will likely impact BT's pattern of cost recovery. However:

- appropriately designed remedies would allow BT to rebalance its system of cost recovery in an orderly way;
- the distributional impacts are likely to be small for almost all users (as noted above);
- in assessing the distributional impacts, Ofcom needs to take into account the significant price reductions in the cost of higher bandwidth services, which may support downstream services used by UK consumers, such as mobile telephony, and which would tend to be passed on to consumers due to the competitive nature of consumer mobile and fixed line broadband markets;
- there will be long-term benefits of greater competition in the market for business connectivity, and flow-on impacts for UK consumers; and
- the benefits of passive remedies create the potential for significant market growth, which could see unit cost reductions for all users.

These issues are discussed in more detail in section 3 of the Frontier Report.

Question 5: Do you agree with our initial view that mobile backhaul and fixed broadband backhaul are likely to be the primary applications with significant demand for passive remedies?

- The PAG believes Ofcom's focus should be on setting appropriate conditions for the availability of passive remedies, rather than second-guessing how those remedies will be used.
- CPs have submitted a SOR to BT which provides a full list of requirements for passive remedies to be effective.

The PAG believes that passive access will promote all types of network investment. This will include, for example, fibre-to-the-premises deployments (such as fixed broadband backhaul), mobile backhaul and potentially many other applications. 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.

CPs have submitted a well-supported SOR to BT which provides a full list of the requirements those CPs believe are necessary for passive remedies to be effective.

Instead, as with the wholesale local access market, Ofcom's focus should be on 'getting the physical remedies to the position where OCPs have sufficient information to determine whether or not to use them'.⁹ Second-guessing the market outcome is not consistent with Ofcom's statutory duties or past regulatory approach and is likely to hinder the range of competitive outcomes that could be achieved – particularly when, as in the Consultation Paper, Ofcom appears to be using its prediction of market behaviour to justify regulating dark fibre but not duct access. As described in more detail in response to question 6 below, duct access offers advantages over dark fibre in some circumstances.

Question 6: What benefits might duct access offer over dark fibre and vice versa? Is there a case for having both remedies?

- Duct and dark fibre are complementary remedies and there is likely to be demand for both in different scenarios.
- Duct offers, for example, the ability for CPs to configure their active network to reflect demands from different customers; significant flexibility and adaptability; economies of scope and the opportunity for cost-effective network expansion.
- Dark fibre's benefits include less duplication of infrastructure in use cases where a service can be effectively delivered using an existing BT fibre route; being potentially simpler and quicker to use; and enabling faster delivery of solutions to customers than would be the case using duct access.
- Concurrent access to both remedies will lead to the best competitive outcomes and is consistent with the regulatory approach taken in the UK (in other markets) and elsewhere in Europe.

These issues are discussed in paragraphs 5.2–5.12 of the Towerhouse Report.

Question 7: If passive remedies were restricted to particular product types or geographic areas how might this affect the usefulness and benefits of the passive remedy?

- Inappropriately restrictive conditions would have significant implications for the success of passive remedies, protecting the current market structure from the types of creative disruption that can occur in effectively competitive markets.
- The benefits of innovation are maximised when CPs have an unrestricted environment for experimentation as is in place for LLU.

The impacts of these potential restrictions is described in detail in paragraphs 5.33–5.56 of the Towerhouse Report.

Question 8: What arrangements would be appropriate for the supply of new infrastructure for passive remedies?

• There is a range of solutions that could be implemented for supply of new infrastructure.

⁹ Ofcom, Review of the Local Wholesale Market – Statement on Market Definition, Market Power Determinations and Remedies (7 October 2010) p 159.

• The PAG does not consider the choice between these solutions is likely to impose any significant implementation issues, and the most appropriate solution can be the subject of discussion between Ofcom, BT and the rest of industry (including the PAG).

Refer to paragraphs 6.41–6.58 of the Towerhouse Report.

Question 9: Do you agree with our initial views about the non-discrimination arrangements for passive remedies?

- The PAG agrees that EOI is the most effective form of non-discrimination.
- EOI should be adopted for both duct access and dark fibre unless a detailed assessment shows that it would create disproportionate implementation issues.
- The outcome of this assessment may not necessarily be the same as in the wholesale local access market, given the significant benefits passive remedies will offer to UK businesses.
- The PAG agrees that Ofcom will also need to consider a requirement for nondiscrimination between BT's passive and active services.

Refer to paragraphs 6.15–6.33 of the Towerhouse Report.

Question 10: In light of the trade-offs identified, which broad options on pricing do you consider would be most appropriate for passive remedies and why? Please also provide details if there is another pricing approach you consider would be appropriate in light of the considerations identified in this section.

- A charge control is the only pricing option that will address BT's SMP and provide the up-front regulatory certainty CPs require in order to make investment decisions.
- In relation to dark fibre, a 'cost plus' approach would be relatively straightforward and would provide a platform for innovation. 'Active minus' pricing would be complex and consign dark fibre to being used as a substitute for existing services.
- In relation to duct access, a 'cost plus' approach would involve price rebalancing by BT but the impacts could be constrained given that decisions by CPs to invest in duct access are unlikely to be driven solely by cost considerations. An 'active minus' approach would not be feasible and would entail significant regulatory complexity.

See sections 3.6 and 5 of the Frontier Report.

Question 11: If a value-based (active minus) approach to pricing dark fibre were adopted, what do you think would be an appropriate active wholesale product (or products) to reference?

For the reasons set out above, the PAG does not consider that an 'active minus' approach is likely to be the most appropriate pricing methodology for dark fibre.

Question 12: Do you have any other comments on the issues raised in the document or comments that might aid our consideration of the passive remedies as a whole?

Annex A and Annex B, together with the text of this submission not otherwise responding to Questions 1 to 11, constitute the PAG's response to Question 12.

Annex A: Report by Towerhouse LLP

(Attached)

Annex B: Report by Frontier Economics

(Attached)